

Syntax in the Absence of Determiner Phrase

Miloje Despić, Ph.D.

University of Connecticut, 2011

This dissertation investigates the structure of the noun phrase in Serbo-Croatian (SC) and cross-linguistically and argues that DP is not universal.

Chapters 2 and 3 examine the relationship between the Binding Theory and DP/NP. Chapter 2 explores Conditions B and C and argues that the most principled way of accounting for a number of binding contrasts between English and SC is to assume that the latter lacks DP. I propose a model which employs a predicate-based version of Condition B, Condition C as defined in Lasnik (1989), and a competitive mechanism which regulates the distribution of reflexives, pronouns, and R-expressions.

Chapter 3 discusses binding of reflexives. Two central proposals are: (i) phases are crucially involved in determining the binding domain for anaphors; (ii) in addition to CPs and ν Ps, DPs (but not NPs) qualify as phases. The analysis is situated within a general approach to phases, in which CPs and DPs do not always count as phases. I show that the proposed system deduces the generalization that reflexive possessives are available only in languages which lack definiteness marking, or which encode it postnominally, while they are systematically absent in languages with prenominal (article-like) definiteness marking. I extend this approach to the clausal domain, arguing that the lack of TP is the crucial reason why certain languages have subject anaphors.

Chapter 4 addresses an argument for DP in SC based on an asymmetry in the distribution of nouns and pronouns in constructions involving an intensifying adjective. I argue that the facts in question not only do not challenge, but in fact support the lack of DP in SC. I also show that in many cases overtly strong pronouns in focus positions are in fact “camouflaged” clitics.

Chapter 5 proposes an analysis of SC long-form/definite adjectives which does not require DP. Central to the analysis is the observation that the definite adjectival declension diachronically consisted of an indefinite adjective and an anaphoric pronoun declining in parallel. I also explain why Bulgarian and Macedonian, the only Slavic languages with definite articles, are also the only Slavic languages lacking long-form adjectives.

Syntax in the Absence of Determiner Phrase

Miloje Despić

B.A., University of Belgrade, 2002

M.A., Ankara University, 2005

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

at the

University of Connecticut

2011

Copyright by

Miloje Despić

2011

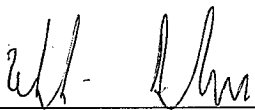
APPROVAL PAGE

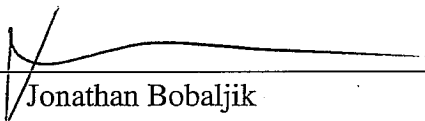
Doctor of Philosophy Dissertation

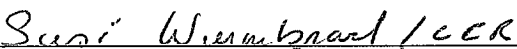
Syntax in the Absence of Determiner Phrase

Presented by

Miloje Despić, B.A., M.A.

Major Advisor  _____
Željko Bošković

Associate Advisor  _____
Jonathan Bobaljik

Associate Advisor  _____
Susanne Wurmbrand

University of Connecticut

2011

Acknowledgments*

I have greatly enjoyed writing this dissertation, which owes the most immediate debt to the members of my committee: Željko Bošković, Jonathan Bobaljik and Susi Wurmbrand. It has been a privilege to work with this group of people. Together they have formed a truly exceptional committee, and I thank them for their generous support, friendly encouragement, and meticulous criticism.

My advisor Željko Bošković devoted an impressive amount of thought to my research, which is evident on every page of this thesis. He has spent countless hours of discussion with me, providing me with constant written feedback. I am deeply indebted to him for all the time and energy he spent teaching and working with me. Without his work, none of this thesis would exist. It is also a pleasure to acknowledge my intellectual debt to Jonathan Bobaljik, whose insightful advice and comments have influenced every aspect of this work. From him I have learned what it actually means to be a linguist, and I will continue learning from his example in the years to follow. Susi Wurmbrand, my first syntax teacher at Uconn, was always willing to devote a great deal of time and attention to the topics I was interested in. Her incisive suggestions and attention to detail have helped me enormously in clarifying my thoughts and sharpening my argumentation.

I also wish to offer my thanks to the other faculty members of the Uconn linguistics department. Yael Sharvit provided a number of helpful comments and a great deal of assistance along the way. Her friendship and willingness to exchange ideas were especially important to me during my education at Uconn. Andrea Calabrese directed and

*The work presented in this dissertation was partially supported by a grant from the National Science Foundation (NSF grant 0920888, PI Bošković, Co-PI Gajewski).

encouraged the phonology part of the work I did for my second generals paper. I feel very fortunate to have had the opportunity to work with him and I would like to express my gratitude to him for his support and interest in my work. Jon Gajewski read parts of the thesis and was always ready to discuss any topic with me. The following faculty members have also been of great help to me in the last five years; I thank them for their inspiration and guidance: Harry van der Hulst, Diane C. Lillo-Martin, William Snyder and Mona Anderson.

The research for this thesis has benefited greatly from discussions with Mamoru Saito, Daiko Takahashi and Jairo Nunes, who were always willing to patiently listen to my often half-formed ideas. Special thanks are due to David Michaels for his ever-present enthusiasm which has been an inspiring driving force behind my work in Storrs.

A number of people in addition to those mentioned above have directly contributed to different parts of this thesis, in the form of discussions, feedback or criticism... Among them are Howard Lasnik, John Baily, Angelika Kratzer, David Embick, Danny Fox, Norvin Richards, Norbert Hornstein, Satoshi Tomioka, Rolf Noyer, Heidi Harley, David Pesetsky, Adam Albright, Rafaela Zanuttini, Steven Franks, Sandra Stjepanović, Wayles Browne, Ljiljana Progovac, Monika Bašić, Boban Arsenijević, Andrew Nevins, Draga Zec, Molly Diesing. I thank them all, especially those who I have unfortunately forgotten to mention.

Masahiko Takahashi has been my closest colleague during the writing of the dissertation and has hung on with me to the bitter end. He has heard most of my proposals countless number of times and his contribution to this dissertation is enormous.

He has also been one of the best foreign language teachers I have ever had. Thank you my *sensei*!

I would also like to thank the other graduate students in the department with whom I overlapped. They provided the warm environment which made the past five years in Storrs a pleasant experience; they have in numerous ways offered assistance and made life possible: I-Ta Hsieh, Koichi Ohtaki, Zhanna Glushan, Elena Koulidobrova, Nilufer Şener, Serkan Şener, Simona Herdan, Duk-Ho An, Miguel Rodríguez Mondoñedo, Masahiko Aihara, Tsuyoshi Sawada, Oksana Tarasenkova, Natasha Rakhlin, Takuro Tanaka, Cynthia L. Z. DeRoma, Nina Radkevich, Natalia Fitzgibbons, Ana Bastos, Jeffrey Merrill-Bernath, Sandy Wood, Carlos Buesa García, Hsu-Te Cheng, Jean Crawford, Kiki Vassilaki, Benjamin Girard-Bond, Irina Monich, Alexandre L. Vaxman, Jelena Runić, Julio Villa-García, Jungmin Kang, Corina Goodwin, Ting Xu, Lyn Shan Tieu, José Riqueros Morante, Neda Todorović, Beata Moskal, Yoshiyuki Shibata, Mary Goodrich, Yu-Ruei Liou, Aida Talić, Peter Smith, Gísli Harðarson, Safet Beriša, Soyoung Eom, Kate Chommanad, Winnie Cheung.

The department's Program Assistant Catalina Ritton has been there for us whenever we have had any questions or issues. Thank you for your endless patience.

Special thanks go to Alen Bešić, Igor Markićević, Helena Despić and Đorđe Despić for their invaluable help in collecting judgments.

I also want to thank my friends and colleagues outside of the Uconn linguistics community with whom I have spent many memorable moments over the years: Milica Ivović, Sanela and Borko Tanasijević, Dragana Vučetić, Katarina Urošević, Uzay Sezen, Pritty Patel-Grosz, Patrick Grosz, Julia Maričić, Shaznene Hussain, Joshua King, Julie

Anderson, Silvia Flotzinger, Robert Riechardt, Marija Plavšić, Jelena Medved, Krzysztof Migdalski, Toshiko Oda, Radek Šimík, Martina Martinović, Mira Bekar, James Lavine, Asya Perelstvaig, John Bailyn, Ivana Mitrović, Chris LaTerza, Nikola Predolac, Esra Kesici, Effi Georgala, Andrei Antonenko, Boris Harizanov, Luka Crnić, Beth Rogers, Bret Shook, Hakyung Jung, Lourdes Estrada, Martina Gračanin Yüksek, Roumyana Pancheva, Sabina Matyiku, Simona Herdan, Zoran Pavlović, Mark Lindsay, Lanko Franc Marušič, Monika Bašić, Barbara Maria Tomaszewicz, Bridget Samuels, Ksenia Zanon, Christine Buckley, Eda Dedebaş.

Special kudos to my buddies Elijah Gaioni and Ila Sivarajah for making the summer of 2010 so great!

My wonderful Serbian friends have played perhaps the most significant role in keeping me sane throughout the years: Nevena and Vrsan Leštarić, Igor Markičević, Nemanja Bobić, Darko Selaković. Thank you for everything.

For many stimulating discussions and exchange of ideas and knowledge during my fellowship year at the Uconn Humanities Institute I want to thank Sharron Harris, Evelyn M. Simien, Emma Gilligan, Kenneth Gouwens, Anne Lambright, Margo Lani Machida, Joanne Pope Melish, Gustavo Nanclares, Marcus Rossberg, Alexia Smith, Asha Leena Bhandary, Michael Neagle.

I never would have become a linguist if it weren't for the fabulous faculty at the Ankara University Linguistics Department and their contagious love for language and linguistics. I am especially grateful to Nadir Engin Uzun and Selçuk İşsever for their support, attention and encouragement.

My big brother Đorđe Despić has been a true guiding figure in my life and has helped me with many of my hardest life's decisions. I am sure that I wouldn't be where I am without his constant support. *Živ bio i hvala ti!*

I owe my deepest debt of love and thanks to my wife Sachiko Komuro, who had to put up with the most through the writing of this dissertation. During many periods of difficulty, Sachiko has given me love, kindness and understanding, without which I can safely say I never would have completed this course of study.

Finally, I owe everything to my parents Milena and Manojlo Despić, who have provided nothing but unquestioning support and encouragement throughout this long journey. I thank them for their love and many years of sacrifices on my behalf. I dedicate this thesis to them. *Hvala vam od srca na svemu!*

Table of Contents:

Chapter 1: Introduction	1
1.1 The Main Point	1
1.2 Some Assumptions and Reminders	12
1.3 SC as an NP Language	13
1.4 Overall Structure	17
Chapter 2: Binding and the Structure of DP/NP: Conditions B and C	21
2.1 Introduction	21
2.2 The Universal DP Hypothesis and Binding	24
2.2.1 The UDPH, Kayne (1994) and SC	28
2.3 Binding in SC	38
2.3.1 Coreference and Rule I	42
2.3.2 Safir (2004) and the FTIP	47
2.3.3 Condition B in SC	54
2.3.4 On the Anti-Subject Orientation of Pronouns	67
2.4 Conditions B and C, QPs and Movement	69
2.5 The Case of SC Reciprocals	81
2.6 Conclusion	90

Chapter 3: Phases, DP/NP, and Binding of Reflexives	93
3.1 Introduction.....	93
3.2 Reflexive Pronouns and Condition A in SC.....	95
3.2.1 Zlatić (1997a/b).....	95
3.2.2 Binding and Phases.....	102
3.2.3 Back to Condition B in SC.....	110
3.3 Reflexive Possessives and Definiteness.....	113
3.3.1 Reflexive Possessives and Left Branch Extraction.....	116
3.3.2 Reflexive Possessives and Definiteness Marking.....	121
3.3.3 Reflexive Possessives, Definiteness and Phases.....	127
3.3.3.1 The Spell-Out Delay Analysis.....	134
3.3.3.2 The Movement-to-D Analysis.....	148
3.4 D-Poss vs. C-T.....	161
3.5 Some Further Implications.....	188
3.6 Summary.....	191
Appendix: Cross-linguistic Limits of Reuland’s Generalization.....	193
Chapter 4: Pronouns, Intensifiers, and DP/NP	199
4.1 Introduction.....	199
4.2 The Noun/Pronoun Asymmetry in SC.....	201
4.2.1 The DP Analysis - Progovac (1998).....	201
4.2.2 Problems for the DP Analysis.....	206
4.2.2.1 AgrP in the SC DP/NP.....	207

4.2.2.2 Demonstratives, Possessives and the Intensifier.....	208
4.2.2.3 SC Reflexives and the Intensifier.....	213
4.3 The NP-Analysis.....	214
4.3.1 The Structure of the SC NP.....	215
4.3.2 The Intensifier <i>sam</i>	222
4.3.3 Focus and Two Types of Pronouns.....	240
4.3.3.1 The Intensifier and Reflexive Pronouns.....	249
4.4 Some Extensions.....	255
4.5 Conclusion.....	266
Appendix: More on Two Types of Pronouns and the Montalbetti Effect.....	268
Chapter 5: DP/NP and Definite Adjectives.....	276
5.1 Introduction.....	276
5.2 Some Basic Facts.....	279
5.2.1 Previous Approaches to Long Form/Definite Adjectives.....	281
5.3 The Morpho-Syntax of SC Nouns and Adjectives.....	287
5.3.1 The Framework.....	287
5.3.2 The Proposal.....	289
5.3.2.1 On the Semantics of the Definiteness Operator.....	301
5.3.2.2 Interim Summary.....	312
5.4 The Masculine Declension.....	314
5.4.1 PS Endings as Elsewhere Items.....	317
5.5 Summary.....	321

Appendix: The Feminine Declension.....	323
1. Introduction.....	323
2. Accent Readjustments.....	326
Bibliography.....	336

CHAPTER 1

INTRODUCTION

1.1 The Main Point

One of the fundamental objectives of any comprehensive linguistic theory is to define the nature of the primitive building blocks that enter into linguistic computation. This thesis investigates the inventory of functional categories in the nominal domain and the question of whether languages vary with respect to the functional categories they instantiate. The main claim of this dissertation is that D(eterminer) P(hrase) is not a universal projection and that languages vary with respect to whether or not they have DP. The claim will be justified with respect to a number of syntactic, semantic and morphological mechanisms and domains, with the binding theory being the center of a number of arguments. I also make a number of new proposals regarding the phase theory.

Among the interesting issues raised by the study of Serbo-Croatian (SC), and more generally Slavic languages, is the extent to which they pose a challenge to certain claims made about Universal Grammar which are based on the study of non-Slavic languages. One such claim, which has been a topic of extensive discussion, is that DP is a universal projection, and that all languages, including article-less languages like SC and most Slavic languages, have overtly or covertly realized DP. Thus, the proponents of the so-called *Universal DP Hypothesis* (UDPH) argue that the structure of NP is universal, regardless of the presence/absence of overt articles in a language. According to this view,

which has become almost standard in the generative linguistics literature, the difference between languages with overt articles such as English, and languages that lack articles such as SC is simply phonological. That is, even languages like SC introduce an article (i.e., a D head) at the syntactic level, but which in contrast to the article in English is not pronounced. For example, Bašić (2004) takes (1) to be the structure of the SC NP:

- (1) [DP (Ovaj) [D' D [POSSP njegov [POSS' POSS [α P veliki [α ' α [NP sused]]]]]]]
- This his big neighbor
- ‘This big neighbor of his’

The central motivation for the DP Hypothesis was a conceptual parallel with the structure of the clause. In essence, the claim was that if the noun phrase is headed by a functional element D, identified with the determiner, then the structure of the noun phrase parallels the one of the sentence, which is headed by Infl. As summarized in Bruening (2009), early indications of this idea can be traced back to Jackendoff (1972), Hogg (1977), Brame (1982), Szabolcsi (1983), while early proponents of this theory are Hellan (1986), Abney (1987), Szabolcsi (1987), among many others. There are still, however, a few serious unsolved problems for motivating the DP Hypothesis based on the noun-sentence parallelism, as discussed in Payne (1993), and more recently in Bruening (2009), who argue that the claimed parallels are not real.

The main objective of this thesis is to explore the legitimacy of advancing the DP Hypothesis into the Universal DP Hypothesis, that is, extending it to languages without articles. This concern can be illustrated with the following quote from Iatridou (1990:

552): “...are data from one language in favor of a functional projection sufficient for us to postulate that the same functional category exists in all languages?”

The proposal that SC lacks DP is not novel, and has been argued for independently by Bošković (2005, 2008a, 2009a, 2010a) and Zlatić (1997a, to appear). Importantly, in this dissertation I do not argue against the DP hypothesis in general (as Payne 1993 and Bruening 2009 do) but only against its universality aspect. That is, I will argue that a number of syntactic differences between SC and English, for instance, can be easily explained on the assumption that DP is projected only in the latter, but not the former.

The core discussion is based on Bošković’s work (2005, 2008a, 2009a, 2010a), who observes that languages without articles differ from languages with articles in surprising but principled and systematic ways. 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 definite articles. A summary of Bošković’s (2008a, 2010a) cross-linguistic generalizations where the two language groups consistently differ is given below:¹

(2) Generalizations from Bošković (2008a) (see also the references therein)

a. *Left Branch Extraction* - Only languages without articles may allow ‘Left Branch Extraction’.

¹ See Bošković (2008a, 2010a) for detailed discussion, including illustrations of the generalizations in (2) and the precise definitions of the phenomena referred to in these generalizations (e.g. what is meant by scrambling in (2c) is long-distance scrambling of the kind found in Japanese).

- b. *Adjunct Extraction* - Only languages without overt articles may allow Adjunct Extraction from NPs.
 - c. *Scrambling* - Only languages without articles may allow (Japanese-style) scrambling.
 - d. *Negative Raising* - Languages without articles disallow Negative Raising (i.e., strict NPI licensing under Negative Raising), and languages with articles allow it.
 - e. *Superiority and Multiple Wh-Fronting* - Multiple Wh-Fronting languages without articles do not show Superiority effects.
 - f. *Clitic Doubling* - Only languages with articles may allow clitic doubling.
 - g. *Adnominal Genitive* - Languages without articles do not allow transitive nominals with two genitives.
 - h. *Superlatives* - Only languages with articles may allow the majority superlative reading.
 - i. *Head Internal Relatives* - Head Internal Relatives are island sensitive in languages without, but not in those with articles.
 - j. *Polysynthetic Languages* - Polysynthetic languages do not have articles.
- (3) Generalizations from Bošković (2010a) (see also the references therein)
- a. *Focus Morphology* - Negative constituents must be marked for focus in article-less languages
 - b. *Negative Concord with Complex Negative Constituents*
The negative concord reading may be absent with multiple complex negative constituents only in DP negative concord languages.

d. *Radical Pro-Drop*

Radical pro-drop (which is defined as productive argumental pro drop of both subjects and objects in the absence of rich verbal agreement) is possible only in NP languages.

e. *Number Morphology*

Number morphology may not be obligatory only in NP languages.

f. *Focus Adjacency*

Elements undergoing focus movement are subject to a verb adjacency requirement only in DP languages.

g. *Interpretation of Possessives*

Possessors may induce an exhaustivity presupposition only in DP languages.

h. *Classifiers*

Obligatory nominal classifier systems are available only in NP languages.

i. *Sequence of Tense*

The sequence of Tense phenomenon is found only in languages with articles.

j. *Second Position Clitics*

Second position clitic systems are found only in NP languages.

To illustrate the variation in question, consider the generalization in (2a), according to which only languages without definite articles may allow “Left Branch Extraction” (LBE). Thus, unlike in English, LBE in languages like Russian and SC is completely acceptable:

- (4) a. *Expensive/Those_i he saw [t_i cars]
 b. Skupa/Ta_i je vidio [t_i kola] (SC)
 Expensive/That is seen car
 c. Doroĝuju/Tu_i on videl [t_i mašinu] (Russian)
 Expensive/That he saw car

Furthermore, Bulgarian and Macedonian, the only two Slavic languages with definite articles, differ from other Slavic languages (e.g. SC, Russian, Polish, Czech, Ukrainian etc.) in that they disallow LBE:

- (5) a. *Novata_i ja prodade Petko [t_i kola]. (Macedonian)
 New it sells Petko car
 b. Novata kola ja prodade Petko

The correlation between the presence of the definite article and the availability of LBE can also be observed in different dialects/registers of a single language. As discussed in Bošković (2010a), while LBE is allowed in literary Finnish, which does not have articles, it is unacceptable in Colloquial Finnish, which has developed a definite article. A construction like (6a) is thus possible only in literary Finnish:

- (6) a. Punaisen ostin auton. (literary Finnish, poetic style)
 Red_{ACC} buy_{PST/1/SG} car_{ACC}

b. ?*Punaisen ostin (sen) auton. (spoken Finnish)
 Red_{ACC} buy_{PST/1/SG} the_{ACC} car_{ACC}

Thus, the loss of LBE in Colloquial Finnish has been triggered by the emergence of the definite article.

As shown in Bošković (2010a), a similar type of phenomenon can be seen in Ancient Greek, which underwent a change from an article-less to an article language. In particular, while Homeric Greek (i.e., Iliad and Odyssey – 8th century BC) was an article-less language, Koine Greek (i.e., 1st century AD) was a bona fide article language. In her study of split wh-phrases (i.e., constructions involving extraction of just the wh-word out of a wh-phrase) and split NPs in the development of Ancient Greek, Taylor (1990) observed a very significant drop in the number of split wh-phrases/NPs in the Homeric and the post-Homeric period. Specifically, Taylor’s corpus contains 68% of split wh-phrases and 25% of split NPs for the Homeric period, which was, as already noted, an article-less language, whereas the corpus for Koine Greek, and article language, contains only 15% of split wh-phrases and 0% split NPs. Since many cases of split wh-phrases/NPs involve LBE, these facts lend strong support to the generalization in (2a).

Finally, in contrast to Modern Romance languages which have definite articles and disallow LBE, LBE was possible in Latin, which lacked definite articles.

The main aim of this dissertation is to show that an appropriate treatment of the absence of articles in a language can adequately answer the problems that the UDPH faces, and that admitting the possibility that languages without articles differ from

languages with articles in a way deeper than just not pronouncing the article can provide new, refreshing perspectives on other properties of language and UG as well.

In this respect, it is worth noting that Cinque (1999), for instance, argues for the existence of a particularly rich hierarchy of functional projections which does not vary across languages. That is, Cinque proposes that the same, rich hierarchy is present in all languages, and in every sentence of each language, even when no morphological material overtly realizes the corresponding head or specifier. Thus, the functional structure represented by the adverb *constantly* in (7a) is on Cinque's approach present even in (7b); i.e., from this perspective, (7b) has the same functional structure as the morphologically richer (7a):

- (7) a. John constantly reads the book.
b. John reads the book.

In fact, Cinque even assumes that the entire hierarchy of functional projections (possibly, on the order of 40), given in (8) below, is present in a simple sentence like (7b) (see Cinque 1999, Chapter 6):

(8) (Cinque 1999; 106)

[*frankly* Mood_{speech act} [*fortunately* Mood_{evaluative} [*allegedly* Mood_{evidential} [*probably* Mod_{epistemic} [*once* T(Past) [*then* T(Future) [*perhaps* Mood_{irrealis} [*necessarily* Mod_{necessity} [*possibly* Mod_{possibility} [*usually* Asp_{habitual} [*again* Asp_{repetitive(I)} [*often* Asp_{frequentative(I)} [*intentionally* Mod_{volitional} [*quickly* Asp_{celerative(I)} [*already* T(Anterior) [*no longer* Asp_{terminative} [*still* Asp_{continuative} [*always* Asp_{perfect} [*just* Asp_{retrospective} [*soon* Asp_{proximative} [*briefly* Asp_{durative} [*characteristically* Asp_{generic/progressive} [*almost* Asp_{prospective} [*completely* Asp_{SgCompletive(I)} [*tutto* Asp_{PlCompletive} [*well* Voice [*fast/early* Asp_{celerative(II)} [*again* Asp_{repetitive(II)} [*often* Asp_{frequentative(II)} [*completely* Asp_{SgCompletive(II)}

Now, many have challenged this rather strong claim and argued that all functional projections are not always present in all languages. It is not a big step then to argue, from this position, that a particular functional projection is never present in a single language. In other words, unless we adopt Cinque's proposal on which functional projections are always all structurally projected and necessarily instantiated even in simple sentences, it is rather natural to assume that some languages may completely lack certain functional projections. This dissertation argues, in particular, that DP is not a universal projection and that it is absent in many languages.

Not having DP, however, comes with certain costs and benefits. To put it plainly, because of the lack of DP a DP-less language cannot do certain things which are allowed in DP languages, and at the same time, for the same reason, it can also do some things that are not allowed in DP languages. That is, one of the main points of this dissertation is that whether or not a language has DP has a fundamental impact on its other general

properties, which often appear to be completely independent of DP. To illustrate, Chapter 3 explores a correlation between the availability of reflexive possessives and different ways of marking definiteness; as observed in Reuland (2007, 2011), reflexive possessives are available only in languages which lack definiteness marking, or which encode definiteness postnominally. Languages which have prenominal (article-like) definiteness marking, on the other hand, systematically lack reflexive possessives. Facts of this sort cannot be treated as a coincidence, and I argue that on the theory I propose they are explained in a straightforward way. More generally, we will see that exploring the costs and benefits of not having DP sheds light on a number of phenomena, with the focus of the dissertation being on the binding theory.

The dissertation is not an attempt at a thorough cross-linguistic investigation, but rather a case study of SC. However, all the arguments developed in the chapters to follow are supported with at least noteworthy cross-linguistic evidence.

The poverty of the noun phrase structure in a language like SC pushes the limits of the system in several domains, making a language like SC a perfect tool for investigating those domains, in particular, binding. I will draw a number of important conclusions about the binding theory more generally, which really can only be seen when examining closely a DP-less language like SC. The more general point that I will make is that it is not really possible to fully understand the nature of principles that underlie the binding theory without investigating seriously languages like SC, which uncover and make obvious many things that are hidden in languages like English.

By juxtaposing SC to DP languages like English I will also draw conclusions regarding the correct structures for English with respect to a number of phenomena,

which would be very difficult to reach without a comparison with a language like SC, which is more deficient than English in both the nominal and clausal domain.

Furthermore, in this dissertation I will also draw more general conclusions about phases since I will argue that DPs are, in contrast to NPs, phases and as such have a special status in the grammar. In particular, I will argue that the relevant domains for binding of reflexives are phases and that with this assumption a number of contrasts in binding between languages like English and languages like SC can be accounted for directly, including, for instance, the fact that reflexive possessives are available only in the latter group of languages.

The intuition that I will follow is that the phase-hood of a phrase in the nominal domain is crucially dependent on the availability of the syntactic representation of definiteness. On the assumption (e.g., Chomsky 2000, 2001, 2004) that phases are fully saturated semantic entities, I argue that noun phrases in languages without definite articles are not “saturated” in the relevant sense. The two language types clearly encode (in)definiteness of noun phrases via two profoundly different strategies; while in languages like English (in)definiteness is represented in the syntax, in languages like SC it obviously belongs to a post-syntactic (semantic/pragmatic) component. Thus, in SC (in)definiteness is to a great extent determined contextually, as illustrated by the following example which is ambiguous with respect to (in)definiteness:

(9) Pazi! Mačka je ušla u kuhinju.

Watch out Cat is entered in kitchen

‘Watch out. The/a cat entered the kitchen.’

In brief, I will argue that syntactically represented definiteness, which is reflected in the presence of articles in a language, is the crucial property of DP, which makes it, in contrast to NP, “complete” for the purposes of the interface, and hence a phase.

However, I will also argue that DP is not always a phase. In particular, I will suggest that in order for DP to be a phase it needs to combine with PossP. I will extend the conclusions of this discussion into a more general theory of phases, arguing that CP is not always a phase either. More precisely, I will propose that CP is a phase only if it combines with TP, which, I show, explains why certain languages allow subject anaphors.

1.2 Some Assumptions and Reminders

It is important to emphasize at the outset a few things that I am not trying to do in this project.

First, as I have already mentioned, I am not trying to argue against the DP hypothesis in general. The central argument is that the DP hypothesis does not apply to all languages, and that this point of variation can, if properly investigated, elucidate the nature of a number of other, seemingly unrelated linguistic phenomena.

Second, following Bošković I will assume that whether or not a language has DP crucially depends on whether or not that language has definite articles. This assumption together with my general agenda should not be mistaken for an attempt to claim that languages without articles completely lack any kind of functional projections in the nominal domain. The absence of definite articles does not entail in any way the complete

absence of nominal functional projections; in fact, I will argue in Chapters 2 and 4 that SC has a few functional projections in the nominal domain, such as QP or IntensifierP for instance, and I will give a number of arguments to justify that claim.

Finally, I am not trying to argue here against the existence of null projections in general either. Just because I argue that languages without definite articles lack DP does not mean that I assume that all functional projections must have some morphological exponent. That is, I do not propose that morphology has to necessarily give clear indication as to whether a particular functional projection is present or not. However, to overlook the clear correlation between the presence/absence of definite articles and the availability of certain syntactic phenomena would be to miss the main point, which is that languages may lack DP.

1.3 SC as an NP Language

In this section I briefly summarize arguments for that claim that SC lacks DP, which have already been given in the literature.

First of all, SC completely conforms to Bošković's (2008a, 2010a) generalizations summarized in (2)-(3), in that it behaves like a typical NP language. For instance, in addition to LBE, SC allows "Adjunct Extraction", which is ungrammatical in English:

- (10) a. Peter met [girls from this city] (English)
b. *From which city_i did Peter meet [girls t_i]?

- (11) Iz kog grada_i je Petar sreo [devojke t_i] (SC)
 From which city is Peter met girls

SC is a multiple wh-fronting language which does not show Superiority effects:

- (12) a. Ko koga vidi?
 Who whom sees
 b. Koga ko vidi?

SC does not allow negative raising and transitive nominals with two lexical genitives, and negative constituents in SC have overt focus morphology. Furthermore, SC is a scrambling language, and it also has second position clitics.

SC lacks articles, which are the prototypical instantiation of D⁰, but it does have lexical items corresponding to English D items (e.g., demonstratives, possessives, quantifiers etc.). However, as shown by Bošković (2005, 2009a) and Zlatić (1997a), such elements do not behave like D items in SC. For instance, they are morphologically adjectives, in that they agree with the noun they modify in case, number and gender in the same way adjectives do:

- (13) a. Onom Milanovom zelenom kućom
 That_{FEM/SG/INSTR} Milan's_{FEM/SG/INSTR} green_{FEM/SG/INSTR} house_{FEM/SG/INSTR}
 b. One Milanove zelenee kućee
 That_{FEM/SG/GEN} Milan's_{FEM/SG/GEN} green_{FEM/SG/GEN} house_{FEM/SG/GEN}

As discussed in Bošković (2005), in contrast to their English counterparts, the elements in question can occur in typical adjectival positions in SC, as shown in (14), where a possessive occurs in a predicative position of a copular construction.

(14) Ova knjiga je moja.

*This book is my

Also, in contrast to English, pronominal modifiers can stack up in SC, just like adjectives.

(15) Svaka ta moja luda ideja

*Every that my crazy idea

These elements often fail to induce Specificity effects that characterize English D items:

(16) a. O kom gradu si pročitao [svaku/(tu) njegovu knjigu t_i]

About which city are read every/(that) his book

b. *About which city did you read every book/this book of his?

Unlike in English, the order of SC pronominal modifiers is relatively free:²

(17) a. Jovanova skupa slika /skupa Jovanova slika

John's expensive picture

² Although there are some restrictions which I discuss in Chapters 2 and 4.

b. Marijina omiljena kola/omiljena Marijina kola

Mary's favorite car

Moreover, SC possessors cannot be modified by any type of modifiers:

(18) a. *Lepi čovekov pas.

Beautiful man's dog

'Beautiful man's dog' (it can only mean: 'The man's beautiful dog')

b. *Svaki čovekov pas.

Every man's dog

'Every man's dog' (it can only mean: 'The man's every dog')

c. *Ivanov bratov pas

Ivan's brother's dog

'Ivan's brother's dog.'

In (18a) the adjective *lepi* 'beautiful' can modify only the head noun *pas* 'dog' not the possessor *čovekov* 'man's'. Similarly, as shown in (18b), it is impossible for the quantifier *svaki* to modify the possessor; it can only quantify over the noun *pas* 'dog'. (18c) shows that a possessor cannot be further modified by another possessor, which is, of course, perfectly fine in English. Bošković (2005) (see also Chapters 2 and 4) argues that this can be captured by assuming that possessors in SC essentially behave like adjectives; i.e., since adjectives in general cannot be modified by other adjectives the ungrammaticality of the constructions in (18) directly follows.

In this dissertation I will provide further evidence that SC lacks DP. Many of the facts which I will present haven't been discussed in the previous literature; I will show that they are directly compatible with the properties of the SC NP given above, but only on the assumption that SC lacks DP. I will also review arguments for the existence of DP in SC, and argue that on close scrutiny the relevant data in fact lend further support to the no DP analysis of SC.

1.4 Overall Structure

This dissertation can be thematically divided into two main parts. The first part explores the correlation between binding and the presence/absence of DP and includes Chapters 2 and 3. In the second part, which covers Chapters 4 and 5, I concentrate on pronouns and adjectives.

In Chapter 2 I investigate Conditions B and C in SC, and argue that the most principled way of accounting for a number of binding contrasts between English and SC is to assume that DP is projected only in English. The facts presented in this chapter also have more general consequences for the binding theory. In particular, in order to account for the SC data in question I propose that Condition B should be defined as in coargument based binding theories and Condition C as in Lasnik (1989). I also argue that in addition to the core binding conditions SC employs a competitive mechanism adopted from Safir (2004), which regulates the distribution of reflexives, pronouns and R-expressions in this language. A more general claim of this chapter is that whether or not a language has DP directly affects its general binding properties and that we can reach a

better understanding of the binding theory only through a careful comparison of the two types of languages.

In Chapter 3 I turn to binding of reflexives. I propose that the conditions on binding of reflexives apply cyclically on the basis of information contained at the level of the syntactic phase and that in addition to CPs and *v*Ps, DPs also qualify as phases (e.g., Adger 2003, Bošković 2005, 2008a, Svenonious 2004, among others). Since the main claim of this dissertation is that DP is not universal, the prediction is then that DP and DP-less languages should systematically differ with respect to binding of reflexives. In particular, in contrast to languages that do project DP, the minimal binding domain for reflexives in DP-less languages should be *v*P. On the basis of data from SC and English, I show that this is indeed the case. At the same time, I argue that the proposed analysis goes a long way in explaining some puzzling cross-linguistic generalizations regarding reflexive possessive forms. In particular, as observed by Reuland (2007, 2011), the availability of reflexive possessives in a language correlates with the way that language marks definiteness. As already mentioned, the generalization is that reflexive possessives are possible only in languages which lack definiteness marking, or which encode definiteness postnominally, while they are absent in languages which have prenominal (article-like) definiteness marking. I show that this generalization falls out naturally under the analysis presented in this chapter. I also argue that the analysis in question can be extended to the clausal domain. In particular, I observe that there may be a deep correlation between the availability of reflexives in the subject position and the lack of TP and propose that only languages without TP may allow subject anaphors/reflexives. I also situate my proposals within a broader context of the phase theory, arguing that the

idea that the syntactic representation of (in)definiteness is crucial in determining phasehood of nominal categories is completely compatible with our general understanding of what phases are.

In Chapter 4 I turn to pronouns in SC and reanalyze one of the most compelling arguments for the existence of null D in SC given by Progovac (1998). Namely, following Longobardi (1994) Progovac observes that those adjectives that can appear with pronouns in SC must necessarily follow pronouns, in contrast to nouns, which are obligatorily preceded by the same adjectives. On the basis of these facts, Progovac argues that pronouns in SC occupy a structurally higher position than nouns and claims that this position is D. In this chapter I develop an alternative, “no-DP” analysis of this phenomenon and I argue that on close scrutiny the facts in question not only do not challenge, but in fact support the lack of DP in SC. The central empirical motivation for the new analysis is found in the observation that the relevant asymmetry occurs in full paradigm only with one modifier, a typical intensifier. In the course of the discussion, a number of issues pertaining to general properties of two types of pronouns in SC are addressed, as well as the syntax and semantics of intensifiers and focus. I also discuss the “so-called” Montalbetti effect and show that in many cases overtly strong pronouns in focus positions are in fact “camouflaged” clitics which display all bona fide properties of weak/deficient pronouns.

Chapter 5 discusses SC long form/definite adjectives, which have become an unavoidable topic in discussing properties of the SC NP. Their form, meaning and distribution have very often been used as evidence for the existence of DP in SC. The dominating type of analysis is that these adjectives in one way or another signal the

presence of a refined functional domain within NP (Aljović 2002, Cinque 2010, Leko 1998, Rutkowski and Progovac 2005, etc.), which in turn lends support to basic tenets of the UDPH. Chapter 5 challenges these analyses and aims to show that they fail to account for a variety of interesting morpho-phonological generalizations, which the model developed in this chapter derives. Since the same model accounts for interpretation and distribution of definite adjectives as well, I argue that the approaches that rely on a proliferation of nominal functional projections in SC are redundant on multiple levels. The observation central to the proposed analysis is that the definite declension diachronically consisted of an indefinite adjective and an anaphoric pronoun declining in parallel. The analysis presented in this chapter also offers a natural and principled way of accounting for the puzzling fact that the only two Slavic languages that lack long form/definite adjectives, namely Bulgarian and Macedonian, are also the only two Slavic languages with definite articles.

CHAPTER 2
BINDING AND THE STRUCTURE OF DP/NP:
CONDITIONS B AND C

2. 1 Introduction

According to the UDPH, most notably represented by Progovac (1998) and Bašić (2004) for SC, the difference between languages with overt articles such as English and languages that lack articles such as SC is simply PF-based. That is, a D head exists even in languages like SC but it is not pronounced. For instance, for Bašić (2004: 26) the SC noun phrase has the following structure:

(1) [_{DP} (Ovaj) [_{D'} D [_{PossP} njegov [_{Poss'} Poss [_{αP} veliki [_{α'} α [_{NP} sused]]]]]]]]

This his big neighbor

‘This big neighbor of his’

This position, however, has not gone unchallenged. Authors like Baker (2003), Bošković (2005, 2008a, 2010a), Chierchia (1998), Fukui (1988), Zlatić (1997a) among others, have argued on independent grounds that DP is not a universal projection and that languages may differ with respect to whether or not they have DP. One of the most articulated

proposals in this respect is the one made by Bošković (2005, 2008a, 2010a), who observes, as noted in the previous chapter, that languages without articles differ from languages with articles in quite systematic ways. Along the lines of Corver (1992), Bošković (2008a) (see also Bošković, 2005) proposes a DP/NP parameter whereby all of the noted differences are analyzed as a consequence of the lack of DP in languages without articles. Hence, according to this view, in languages without overt articles, the structure of the noun phrases is as in (2). Here, prenominal elements modifying the noun and agreeing with it in case, number and gender are adjoined to NP.¹

(2) [_{NP} Demonstr. [_{NP} POSS. [_{NP} AP [_{NP} N]]]]

(Bošković, 2005)

This chapter presents another argument in favor of the view of the second group of authors, which is based on SC binding facts. I contend that the exactly opposite behavior of English and SC with respect to a number of binding contrasts can be straightforwardly accounted for under the assumption that DP is projected in English, but not in SC. At the same time, I show that this assumption goes a long way in explaining the complex binding situation in SC as well. I also show that the new facts from SC presented in this chapter enable us to better comprehend the nature of the principles behind the Binding Theory in general. Thus, the primary goal of this chapter is to present the new SC data and a number of contrasts in binding between English and SC, point out the relevance of these facts for the structure of NP, and then explore their consequences for the Binding Theory in general.

¹ Alternatively, they can also be treated as multiple Specs of NP (see Bošković 2005 for a detailed discussion of this alternative).

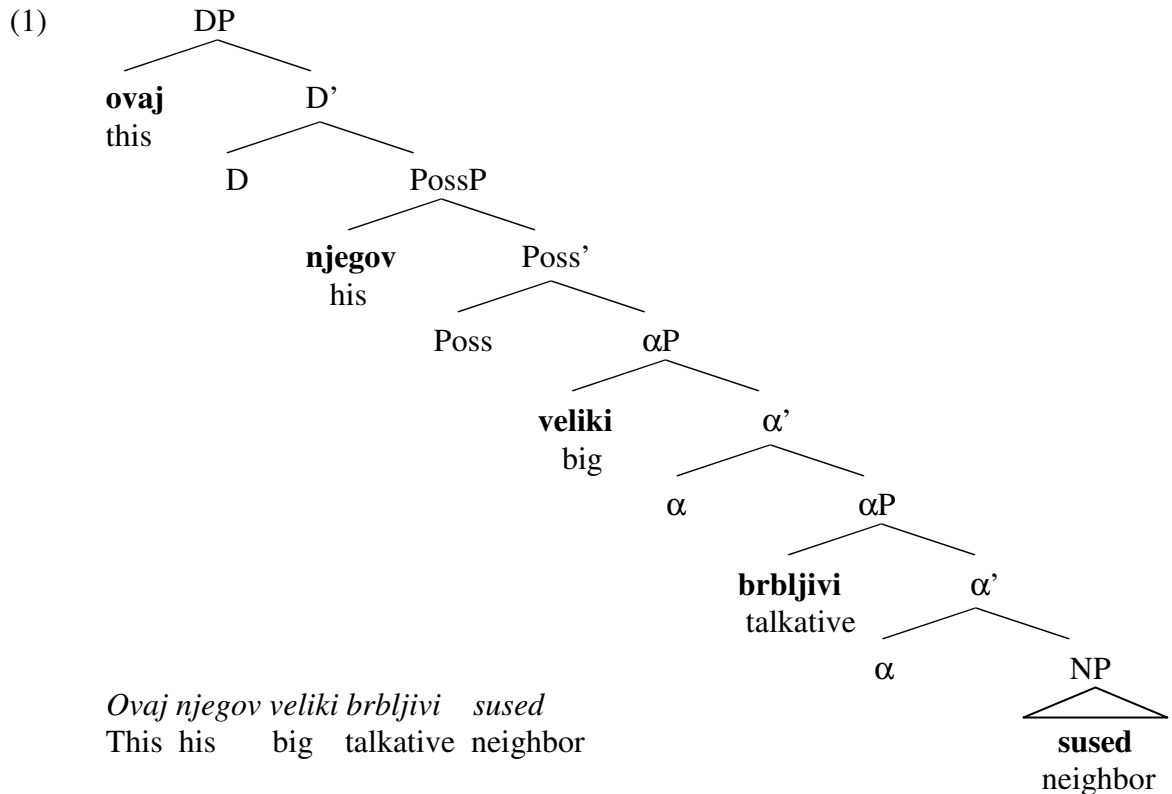
The chapter is structured as follows. In section 2.2 I present and discuss the noted SC binding facts, which are mainly related to the distribution of pronouns and R-expressions in the language, and use them as a testing ground for checking predictions the above-mentioned two approaches make with respect to binding. I argue that only a view that assumes the lack of DP in SC and allows prenominal modifiers to c-command out of their noun phrases can handle SC binding facts in a non-circular way. In light of this discussion, in section 2.3, I examine implications that this proposal has for the theory of binding in general. In particular, I argue that SC employs a version of Condition B, which is similar to the ones advanced in coargument based binding theories (e.g., Reinhart and Reuland 1993, Pollard and Sag 1992, 1994) and that Condition C in this language should be defined as in Lasnik (1989). In addition, I propose that a competitive mechanism proposed by Safir (2004) is active in SC, and that it can affect binding/coreference possibilities in this language to a significant degree. In relation to this, I also discuss the notion of anti-subject orientation of pronouns and argue that SC facts lend support to approaches on which the existence of anti-subject oriented pronouns is a natural consequence of the distribution of subject oriented anaphors (e.g., Hellan, 1988, Burzio 1989, 1991, 1996, Safir 2004 etc.), not a result of some independent principle of grammar. In section 2.4 I investigate the relationship between Conditions B and C and movement and show how the analysis argued for in this chapter accounts for the cases in which Condition B and C effects are voided by movement. Finally, in section 2.5 I discuss consequences of this analysis for SC reciprocals.

2.2 The Universal DP Hypothesis and Binding

There are two arguments that proponents of the UDPH most commonly use in favor of the structure in (1) over the traditional NP analysis. First, only the structure in (1) directly derives from phrase structure the ordering restrictions of demonstratives, possessives and adjectives, including the mutual ordering of adjectives. Second, only (1) finds straightforward support in Kayne's (1994) antisymmetric view of syntax, since contrary to the traditional NP-adjunction analysis of APs, it is compatible with Kayne's approach, which allows only one single specifier per projection and predicts that that specifier must be on the left.²

The first argument partly comes from Cinque's assumptions about phrase structure. Bašić (2004), for instance, follows Cinque (1994) in this respect and assumes that all attributive adjectives are generated in specifier positions of α Ps, functional projections in the functional spine of DP. This is based on Cinque's (1994) observation that the distribution of adjectives in noun phrases closely resembles the distribution of adverbs in verb phrases. The claim is that the strict ordering of adjectives in noun phrases reflects the fact that they are generated in specifiers of different, hierarchically ordered universal functional projections between D^0 and NP. I give (1) below again:

² This is on the assumption that adjectives do not take NPs as their own complements, as proposed by Abney (1987).



There are, however, some widely recognized general conceptual problems with this argument. For instance, as Bobaljik (1999) points out, taking the restrictions of adverbial/adjectival ordering to be a consequence of a fixed universal function projection hierarchy in the phrase structure leads to some non-trivial word order paradoxes, which necessarily leads to postulating multiple hierarchies, and hence effectively diminishes the strength of the parsimony aspect of Cinque's argument. Also, Bošković (2009a) observes that the ordering restrictions of adjectives with respect to demonstratives and possessives can get a principled account in terms of filtering effects of semantics. Bošković shows that possessives in SC stand in a freer ordering relation with respect to adjectives, in that they can both precede or follow them, whereas demonstratives necessarily precede both possessives and adjectives:

(3) Possessive – Adjective

a. Jovanova skupa slika /skupa Jovanova slika

John's expensive picture

b. Marijina omiljena kola/omiljena Marijina kola

Mary's favorite car

Demonstrative - Possessive

c. Ova skupa kola/?*skupa ova kola

This expensive car

d. Ova Jovanova slika/?*Jovanova ova slika

This Jovan's picture

(Bošković 2009a)

Under the standard assumption which takes demonstratives to be of type $\langle\langle e,t\rangle, e\rangle$, and most adjectives to be of type $\langle e,t\rangle$, and according to which possessives are modificational, semantic composition requires demonstratives to be composed at the end, that is, after adjectives and possessives. Under this view, semantic composition essentially does not regulate the order of possessives and adjectives relative to each other in any way, which is consistent with the facts. However, while semantic composition allows possessives to be composed either after or before modifying adjectives, demonstratives must be composed after both possessives and adjectives, which overall matches the actual SC facts. The claim is then that since these ordering restrictions follow from semantic requirements, syntax can generate all the orders, but semantics will filter out the unacceptable ones. Bošković thus argues that adjectival ordering restrictions

follow directly from semantic composition, and need not be imposed by syntax.³ Without going into any more details of the arguments for and against Cinques's proposal, I will continue with the assumption that there is not enough evidence which conclusively shows that assigning adjective ordering restrictions to the phrase structure would be any less stipulative than analyzing them as a property of some syntax-external (semantic) mechanism (see also Ernst 2002, and Shaer 1998, among others, for arguments against Cinque's view of adverbs, some of which can be extended to his treatment of adjectives).

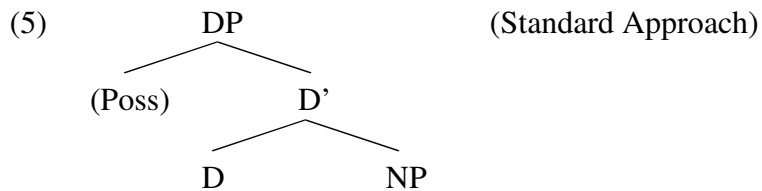
The second argument, namely, that only structure in (1) finds straightforward support in Kayne's (1994) antisymmetric view of syntax, is directly relevant for this chapter. For this theoretical argument about the position and number of specifiers per projection to carry weight, an account would need to adopt the antisymmetric view of syntax entirely, with all the possible consequences. In what follows, I show that adopting both a universal DP structure and the system proposed in Kayne (1994) is untenable for SC. Since, under the UDPH, the structure in (1) is the structure for noun phrases in both English and SC, these two languages are predicted not to crucially differ in their syntactic behavior. In the following subsection, I show that this is not correct and that English and SC differ systematically in their binding properties. I argue that the most principled and parsimonious way of accounting for the differences in question is to assume that DP is projected only in English. Such an approach, I argue, does not require additional assumptions to explain the data and is directly compatible with the cross-linguistic observations made by Bošković (2008a, 2010a), discussed in Chapter 1, which constitute the central argument that DP is not universal.

³ Bošković (2009a) actually argues that this also holds for the ordering of adjectives with respect to each other.

2.2.1 The UDPH, Kayne (1994) and SC

Assuming a standard DP structure as in (5) for English, the grammaticality of the sentences in (4) is expected: being in the specifier position of subject DPs, the possessives *his_i* and *John_i* do not c-command *John_i* and *him_i*, respectively, and thus do not induce violations of Conditions C and B.

- (4) a. *His_i* father considers *John_i* highly intelligent.
 b. *John_i*'s father considers *him_i* highly intelligent.



However, under Kayne's Antisymmetry approach, specifiers are adjuncts and, by virtue of the definition of c-command given in (6), they c-command out of the category they are adjoined to:

- (6) X c-commands Y iff X and Y are categories, X excludes Y and every category that dominates X dominates Y (X excludes Y if no segment of X dominates Y).

Given this, (4a) and (4b) would be incorrectly predicted to be ungrammatical under the structure in (5), since *his_i* and *John_i* are dominated only by a segment of the subject DP, and therefore do c-command *John_i* and *him_i*, violating Conditions C and B, respectively. To resolve this problem Kayne makes two important assumptions. First, following

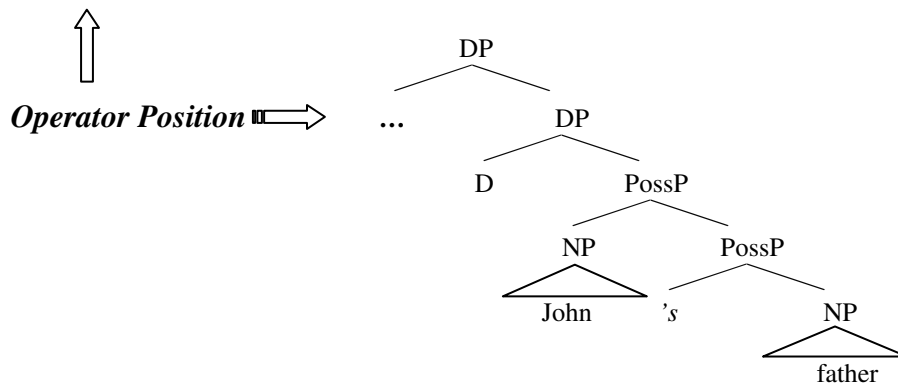
Szabolcsi's (1981, 1983, 1992) analysis of Hungarian possessives, Kayne assumes that the possessor is preceded by an independent D, much as in the Italian example in (7):

(7) *il mio libro*

the my book

Kayne proposes that in English, too, the prenominal possessor is the specifier⁴ of a PossP, which in turn is dominated by a DP with a null D head, as in (8).

(8) [_{DP} ... [_{D'} D [_{PossP} John [_{Poss'} 's [_{NP} father]]]]].



(4a) and (4b) are then accounted for: the additional null DP projected above the possessor prevents *his_i* and *John_i* from c-commanding co-indexed elements outside the DP. Second, also following Szabolcsi, the specifier of the null DP is argued to be an exclusive operator position, which although essential to operator-variable binding of a pronoun, is irrelevant to Conditions A, B and C of the binding theory. Kayne proposes that quantificational possessor phrases move up to this position in LF. Motivation for this

⁴ I use the term *specifier* here for ease of exposition, highlighting again the fact that *specifiers* in Kayne's theory are in fact adjuncts.

movement comes from examples such as (9)-(10), where the QP ‘every girl’ undergoes covert movement to the specifier of DP. Since from this position the QPs c-command the rest of the sentence, a bound variable interpretation of the pronoun *she* in (9) is legitimate. (10), on the other hand, is still excluded, since it is assumed that the operator cannot license a reflexive from this position (see Kayne, 1994, and references therein for further details of the analysis).

(9) Every girl’s father thinks she is a genius.

(10) *Every girl’s father admires herself.

Returning to the question of how this relates to the structure of SC noun phrases, we see that (8) resembles (1) in one significant way: they both have a DP headed by a null D above the possessor. Under Kayne’s approach, this projection plays a very important role, since (i) it is necessary to explain the facts in (4a) and (4b) in a way consistent with the assumption that ‘specifiers’ c-command out of their projections and (ii) by making certain assumptions about the character of this projection’s Spec position, Kayne seems to be able to account for an interesting operator-variable paradigm in English.

The question is then whether the DP headed by a null D in (1) plays a significant role in SC. If it does, and if the argument from the Antisymmetry holds, we expect SC binding facts not to crucially differ from English, i.e., the DP above the possessor should prevent illicit c-command relationships between the possessor and co-indexed elements in the sentence. Consider in this respect the following SC constructions:

(11) * Kusturicin_i najnoviji film ga_i je zaista razočarao.

Kusturica's latest film him is really disappointed

'Kusturica_i's latest film really disappointed him_i.'

(12) * Njegov_i najnoviji film je zaista razočarao Kusturicu_i.

His latest film is really disappointed Kusturica

'His_i latest film really disappointed Kusturica_i.'

(13) * Markova_i slika mu_i je juče pala na glavu.

Marko's picture him is yesterday fell on head

'Marko_i's picture fell on him_i yesterday.'

(14) * Njegova_i slika je juče pala Marku_i na glavu.

His picture is yesterday fell Marko on head

'His_i picture yesterday fell on Marko_i.'

There is a clear difference in acceptability of these sentences in English and SC. While in English all of these examples are straightforward on the relevant readings (to the extent that the Backwards Anaphora of the sort illustrated in (12) and (14) is allowed in the language), none of these constructions are grammatical in SC.⁵ This suggests that possessors in SC do c-command out of the subject noun phrases they are possessors of,

⁵ I have conducted a survey of grammaticality judgments with 25 native speakers of SC. A paper-and-pencil questionnaire was administered to informants through electronic mail. Subjects were asked to evaluate the sample sentences on a five-grade scale, ranging from totally unacceptable through three intermediate levels to fully acceptable. Grammaticality judgments collected in this survey directly support the claim made in this chapter. For instance, 20 speakers found (11) completely unacceptable, while 5 of them found it unnatural but possible in certain contexts (In section 2.3 I discuss contexts in which (11) is acceptable, since it is an issue that is directly relevant to my proposal). 24 speakers, on the other hand, found (12) completely unacceptable. One speaker found (12) marginally possible only in a context where *njegov* receives emphatic stress. The overall picture is that these constructions may become relatively acceptable with emphatic stress, suggesting that notions like contrastive focus/topic may affect grammaticality judgments to a certain degree. However, in out-of-the-blue contexts these sentences are clearly unacceptable, which obviously is not true for English, and this is the point of contrast that this study focuses on.

and thus induce Condition C and B violations.⁶ If there were no essential difference in the phrase structure of the nominal domain between English and SC, and if the structure of SC NP were as in (1), as suggested by the UDPH, we would expect the two languages not to differ significantly with respect to binding, contrary to fact. These data, then, show that in SC there is no projection dominating the subject phrase that would block this illicit relation. In order to explain the contrast between SC and English a UDPH approach to SC would have to make additional stipulations, and would anyhow face serious difficulties in dealing with Bošković's generalizations given in Chapter 1. On the approach developed here, which is completely compatible with Bošković's observations, the contrast in question comes for free and is a direct consequence of a deep structural difference between SC and English. That is, in contrast to English, SC does not project a DP and all pronominal modifiers (demonstratives, possessives, and adjectives) in this language are adjoined to the NP they modify; this has already been argued for on independent grounds

⁶ It could be argued that the ungrammaticality of (11) might be due to the fact that the pronoun in question is a clitic, and that clitics usually refer to an already established discourse referent. The question is then whether the Condition B-like effect in (11) is really a violation of Condition B or some other, pragmatic principle. After all, Fiengo and Higginbotham (1981) observe that even in English (i) is ungrammatical when the pronoun *him* is unstressed and reduced to *'im*.

- (i) * John_i read [_{DP} books about 'im_i].

Also, it is generally accepted that there is no delay of Condition B effects in language acquisition in languages with clitic pronouns such as Italian (McKee 1992), French (Hamann, Kowalski & Philip 2002), Spanish (Padilla 1990, Baauw, Escobar & Philip 1997), and Catalan (Escobar & Gavarró 2001). This phenomenon, which is sometimes referred to as the Clitic Exemption Effect (CEE), also seems to show that clitics/weak pronouns may behave differently with respect to Condition B effects. To make sure that it is not the clitic form of the pronoun that causes the ungrammaticality of (11) I have also collected judgments for (ii), in which the pronoun takes the full form.

- (ii) * Kusturicin_i najnoviji film je zaista razočarao njega_i.
Kusturica's latest film is really disappointed him

25 speakers that I have tested found (ii) equally ungrammatical (or even more): for 21 of them (ii) is completely unacceptable, while 4 of them found it marginally possible with emphatic stress on the pronoun *njega*. This almost exactly mirrors the (un)acceptability of (11) (see footnote 5). The issue of emphatically stressed pronoun does not arise in (11), since clitics cannot bear (emphatic) stress.

by Bošković (2005, 2009a) and Zlatić (1997a), as shown in Chapter 1. Since prenominal modifiers are dominated by segments (e.g., May, 1985), they c-command out of their NPs (see (6)), and violate Conditions B and C in structures like (11)-(14).⁷

Recall from the discussion in Chapter 1 that both demonstratives and possessives are morphologically adjectival in SC, in that they agree with the noun they modify in case, number and gender in the same way adjectives do. This is illustrated in (15) with respect to a partial case paradigm (I discuss adjectival agreement in SC in detail in Chapter 5):

- (15) a. Onom Milanovom zelenom kućom
 That_{FEM/SG/INSTR} Milan's_{FEM/SG/INSTR} green_{FEM/SG/INSTR} house_{FEM/SG/INSTR}
- b. One Milanove zelene kuće
 That_{FEM/SG/GEN} Milan's_{FEM/SG/GEN} green_{FEM/SG/GEN} house_{FEM/SG/GEN}

⁷ It is necessary to clarify that the ungrammaticality of (11)-(14) is not due to the type of verb used in these constructions. Since *razočarati* 'to disappoint' is an experiencer object predicate and *pasti* 'to fall' is an unaccusative predicate, it might be argued that the subject in the constructions in question is not (for the purposes of binding) interpreted in its surface position, but in the lower position under (A-)reconstruction, which would induce a Condition C violation in (11) and (13), for example. Under this analysis, however, reconstruction would have to be obligatory, which is a very problematic assumption. Furthermore, this alternative explanation cannot account for the status of the examples below, which are as unacceptable as (11)-(14) are:

- (i) *Markov_i magarac ga_i je šutnuo.
 Marko's donkey him is kicked
 'Marko_i's donkey kicked him_i.'
- (i) *Njegov_i magarac je šutnuo Marka_i.
 His donkey is kicked Marko
 'His_i donkey kicked Marko_i.'

See also Takahashi (2011) for a discussion of the binding paradigm in question with relational nouns in Japanese; note that Japanese behaves like SC with respect to (11)-(14) (e.g., Bošković 2010a, Takahashi 2011).

Moreover, as shown in Chapter 1, SC possessives and demonstratives syntactically behave like adjectives in every respect, which is completely consistent with the analysis proposed here (see Chapter 1 for a number of arguments to this effect, which are based on the appearance of SC possessives and demonstratives in adjectival positions, stacking up, impossibility of modification, specificity effects, etc.)⁸

A particularly compelling argument against the UDPH analysis of SC comes from constructions which involve both demonstratives and possessives. In order to account for the ungrammaticality of (11)-(14) one could argue for a ‘weaker’ version of the UDPH. That is, it might be hypothesized that in languages like SC DP is actually not always projected; it is projected only when the specifier of DP (i.e., the demonstrative in (1)) is overtly realized. Thus, on this version of the DP analysis of SC, the DP in (1) would be projected only if the demonstrative is present overtly. The prediction is then that (11)-(14) should improve significantly if the demonstrative is added to the subject NPs in these sentences. This, however, is not correct. Consider (16a-b), which are as unacceptable as (11) and (12) are:

(16) a. *_{[NP Ovaj _{[NP Kusturicin_i _{[NP najnoviji _{[NP film]]]]] ga_i je zaista razočarao.}}}}

This Kusturica’s latest film him is really disappointed
 ‘This latest film of Kusturica_i really disappointed him_i.’

b. *_{[NP Ovaj _{[NP njegov_i _{[NP najnoviji _{[NP film]]]]] je zaista razočarao Kusturicu_i.}}}}

This his latest film is really disappointed Kusturica
 ‘This latest film of his_i really disappointed Kusturica_i.’

⁸ See also Fukui (1988) for relevant discussion of Japanese.

To be more precise, on this hypothetical, ‘weaker’ variant of the UDPH approach to SC, the structure of the subject NP in (11) would be as in (17):

(17) [_{PossP} *Kusturicin* [_{α P} *najnoviji* [_{α} α [_{NP} *film*]]]].

Kusturica’s *latest* *film*

This modification of the UDPH would ultimately account for the unacceptability of (11). In particular, given Kayne’s proposal that specifiers c-command out of their phrases, (11) would violate Condition B since, by assumption, there would be no DP headed by a null D above the PossP in (17) that would prevent the object pronoun in (11) from being c-commanded by the possessor *Kusturicin* ‘Kusturica’s’. By the same logic, the status of (12)-(14) would also be accounted for. The unacceptability of (16), however, directly challenges this alternative version of the UDPH, and shows that it makes wrong predictions. Since the demonstrative is overtly present in (16), which according to (1) should signal the presence of an underlying DP headed by a null D, we should expect (16) to be acceptable, i.e., this DP should block the possessive from c-commanding into the structure and thus no binding violation should arise. However, (16) is as ungrammatical as (11)-(14) are, which clearly argues even against this alternative, ‘weaker’ rendition of the UDPH analysis.

The adjunct-based approach advanced here, on the other hand, predicts exactly this state of affairs. More precisely, adding a demonstrative to the subject in (11)-(14) should not affect the overall unacceptability of these constructions at all, since both the

possessor and the demonstrative are adjuncts and they both c-command out of the subject NPs.

Moreover, the same type of argument challenges Cinque's (1994) theory of adjectives, on which adjectives are generated in specifiers of different, hierarchically ordered universal functional projections between D^0 and NP (i.e., α Ps in (17)). Since on this view adjectives signal the presence of additional functional projections (i.e., α Ps in (17)), we would expect Condition B and C effects to disappear when adjectives precede the possessor.⁹ That is, if an α P dominates PossP, then the possessor should not be able to c-command the R-expression or the pronoun, and therefore violations of Conditions B and C should be voided. This, however, is not correct; the following examples, in which the adjective *najnoviji* 'latest' precedes the possessive, are as ungrammatical as (11) and (12) are:

(18) a. *Najnoviji Kusturicin_i film ga_i je zaista razočarao.

Latest Kusturica's film him is really disappointed
'Kusturica_i's latest film really disappointed him_i.'

b. *Najnoviji njegov_i film je zaista razočarao Kusturicu_i.

Latest his film is really disappointed Kusturica
'His_i latest film really disappointed Kusturica_i.'

To complete the argument given in this section and confirm that the grammaticality status of (11)-(14) is a result of binding condition violations and not something else, let me note

⁹ Recall from (3) that the order between possessives and adjectives in SC is not fixed.

that when the possessive clearly does not c-command the element coindexed with it, as in (19a-b), no binding condition violations arise:

(19) a. Film koji je Kusturica_i snimao tri godine u Veneciji ga_i na kraju nije u
Film which is Kusturica shot three years in Venice him on end not in
potpunosti zadovoljio.

completeness satisfied.

‘The movie that Kusturica_i shot for three years in Venice at the end didn’t satisfy
him_i completely.’

b. Onaj ko voli njegove_i filmove voli i Kusturicu_i.

That who loves his films loves and Kusturica

‘The one who loves his_i movies loves Kusturica_i too.’

To summarize, in this section I have argued, contra the UDPH structure in (1), that it is the lack of DP in SC, and the assumption that nominal modifiers c-command out of their noun phrases that explains the binding differences between English and SC in a principled way. I argued only against the uncompromising version of the UDPH, namely that all languages have the same structure in the nominal domain, and that the apparent overt differences reflect only PF phenomena. As emphasized in Chapter 1, I do not argue against the possibility that some functional structure may be projected above SC NPs but only that positing null projections, especially when there is no direct evidence for them, must be empirically justified.¹⁰

¹⁰ In fact, in section 2.4 and especially in Chapter 4 I do argue for the existence of some functional structure in the SC nominal domain, but crucially, the structure in question does not involve DP.

The goal of this section has been to introduce a new set of facts from SC and to point out the relevance of a number of contrasts in binding between SC and English for the structure of NP in these languages. Given that SC conforms to Bošković's (2008a, 2010a) generalizations, as discussed in Chapter 1, I conclude that there is enough evidence to convincingly argue that SC does not project DP. The goal of the next section is to discuss binding in SC in more detail and to explore the implications of the novel SC facts presented in this section for binding in SC and for the Binding Theory in general.

2.3 Binding in SC

The question that lurks behind the data in (11)-(14) is: How do in fact native speakers of SC express the meanings of the above-mentioned unacceptable constructions, which are otherwise fairly easily accessible in English? Given the status of (11)-(14), and in particular the claim that in SC possessors c-command out of the noun phrases they modify, it is expected that a construction like (20) should, similarly to (12), violate Condition C.

(20) Kusturicin film je zaista razočarao Kusturicu.

Kusturica's film is really disappointed Kusturica

'Kusturica's film really disappointed Kusturica.'

However, (20) is good, and it sharply contrasts with (12). This suggests that (20) does not violate Condition C. The contrast between (20) and (12) becomes even more puzzling in

light of (21), which, under the current analysis, involves the same c-command relation between the two R-expressions as (20), yet is ungrammatical.

(21) * Kusturica poštuje Kusturicu.

Kusturica respects Kusturica

‘Kusturica respects Kusturica.’

However, (22)-(23) are more degraded than (21).¹¹

(22) **On_i poštuje Kusturicu_i.

He respects Kusturica

‘He_i respects Kusturica_i.’

(23) **Kusturica_i poštuje njega_i.

Kusturica respects him

‘Kusturica_i respects him_i.’

To answer some of the questions that the above paradigm poses, I will first assume a more restricted version of Condition C. Lasnik (1989) notices that Condition C effects vary cross-linguistically, and that the variation is parametric in an interesting way. In Thai, for instance, a sentence like (21) is fully acceptable. However, if the subject R-expression is replaced by a pronoun, (21) becomes impossible, as much as (22) is impossible in SC. On the basis of this, Lasnik concludes that Condition C, unlike

¹¹ When asked to compare (21) with (22)-(23), my informants reported the following judgments: 16 speakers consider (21) to be more acceptable than (22), while 17 speakers find the same sentence more acceptable than (23); the rest of the informants do not find (21) to be particularly better than either (22) or (23). In general, the informants judged (21) as unnatural, but none of them found it worse than (22)-(23).

Conditions A and B, involves reference to both the binder and the bindee. Lasnik's version of Condition C is given in (24):

(24) An R-expression is pronoun-free.

Taking this definition to apply in SC as well, we may now be able to account for the difference between (21) and (22), i.e., only (22) violates Condition C, and even though (21) is unacceptable, this cannot be due to a Condition C violation, but rather something else (note that the ungrammaticality of (12)/(14) is still accounted for under this revised formulation of Condition C). Following this logic we can also assume that (23) is a Condition B violation. The questions that still remain, however, are what is (21) a violation of, and depending on the answer to that question, why is (20) good?

The answer to these questions consists of three parts, which I offer at this stage in a nutshell in order to make my endpoint as clear as possible. The motivation for the assumptions laid out here is fleshed out in the following sections.

First, I take it that the standard binding conditions (with Condition C formulated as in (24)) apply in SC. More specifically, Conditions B and C are syntactic conditions, which rule out derivations not conforming to them. In that sense, (22)-(23) violate Conditions C and B, respectively, and are for that reason judged worse than (21), which does not violate any of the binding conditions. I will also argue that a version of Condition B similar to the ones proposed in co-argument-based binding theories (e.g., Reinhart and Reuland 1993, Pollard and Sag 1992, 1994) is active in SC, i.e.,

oversimplifying somewhat, a pronoun cannot be anteceded by an NP within its own predicate.

Second, I will argue that in order to account for a variety of SC facts we need to appeal to the well known distinction between *coindexation* and *coreference* originally introduced in the work of Tanya Reinhart (e.g., Reinhart 1983, 1986). The interplay between core binding conditions and contexts which license coreference in SC often makes binding facts in this language extremely difficult to comprehend, but I will show that the facts in question can be accounted for quite successfully once the binding conditions B and C are adequately defined and the importance of coreference is recognized.

Third, I will argue that SC also employs a principle which regulates the distribution of reflexives, pronouns and R-expressions. The principle in question is Safir's (2004) 'Form to Interpretation Principle' (FTIP). The FTIP essentially determines whether what Safir calls a dependent identity reading is possible with respect to some designated antecedent, depending on whether or not the most dependent form available in the syntactic context has been selected from the lexicon to represent the dependent. If a more dependent form than the one employed is available, then it outcompetes the less dependent form to represent the dependent identity reading. This principle predicts a complementary distribution between more or less dependent forms in any context where those forms are in competition. Since one of the main goals of competition approaches to binding is to derive Conditions B and C from various competitive algorithms, the analysis in this chapter obviously contradicts the main tenets of such approaches, given that it

requires Conditions B and C independently. However, I will argue that an analysis balanced exactly this way is required to account for the full set of binding facts in SC.

In the next subsection I first discuss the importance of the so-called *coreference* and Reinhart's 'Rule I' for the SC facts.

2.3.1 Coreference and Rule I

The central thesis of Reinhart's (1983) proposal is that only one type of relation between co-referring elements is syntactically represented and directly constrained by the principles of grammar, and this is the relation of *variable binding* in the sense of formal logic. Reinhart calls this type of coreference relation 'coindexation'. Since the precise formalism of her proposal is not necessary at this point I will just briefly go over some notions of her theory that are important for our purposes.¹²

The basic assumption is that NPs are generated with free indices, which may be identical, yielding coindexation, as in (25).

¹² The following is a reduced version of Reinhart's formalism (Grodzinsky and Reinhart, 1993: 75):

(i) a. *Definition:*

A node α is *bound* β iff α and β are coindexed and β c-commands α .

b. *Conditions*

A. An anaphor is bound in its GC.

B. A pronoun free in its GC.

c. *Translation Definition*

An NP is a variable iff either

i. it is empty and A'-bound, or

ii. it is A-bound and lacks lexical context.

Other cases of NP coindexation are uninterpretable.

See also Heim (1998) for a reinterpretation of Reinhart's approach and a different formalism.

- (25) a. *Everyone_i thinks that Jack likes himself_i.
b. *Everyone_i likes him_i.
c. Everyone_i likes himself_i.
d. Everyone_i thinks that Jack likes him_i.

Some of the examples above, such as (25a-b), are filtered out by Conditions A and B of the standard binding theory. An important assumption of this approach is that coindexation has only the bound variable interpretation. Coindexation that cannot be interpreted in such a way has no interpretation. However, as illustrated in (26), the syntactic environments allowing two elements to co-refer are not completely identical to those allowing bound variable. Generally, bound variable is possible only when the antecedent c-commands the pronoun. *His* in (26) obviously does not c-command *Jack*, and even though both elements carry the same index, (26) cannot be a case of coindexation.

(26) Most of his_i friends respect Jack_i.

For Reinhart, (26) is a case of *coreference*. Coreference in this narrow sense is a type of a semantic relation which is not represented on any syntactic level and can therefore not be directly licensed or ruled out by structural conditions. Reinhart crucially assumes that coreference is the assignment of identical values to NPs with distinct syntactic indices, regardless of whether the two NPs occur in the same sentence or not. Importantly, the interpretation of coreference construction is obtained when the two elements bear

different indices; when they are coindexed, the bound interpretation is obligatory. Thus, *his* and *Jack* in (26) should be in fact labeled with different indices, which turn out to have the same value at the end. But, coreference defined this way is too strong and general and would make many undoubtedly ungrammatical sentences acceptable. To limit the distribution of coreference, Reinhart introduces ‘Rule I/Coreference Rule’.

(27) Rule I/Coreference Rule:

NP A cannot corefer with NP B if replacing A with C, C a variable A-bound by B, yields an indistinguishable interpretation.

Given (27), if a structure could allow bound variable anaphora, coreference is preferred only if it is motivated, i.e., only if it is distinguishable from bound anaphora. In structures where both coreference and coindexation are in principle possible, (27) has the effect of allowing coreference only in contexts where it is distinguishable from the bound interpretation. The basic idea is that in the standard cases the easiest way to express coreference is by means of variable binding. When this option is avoided without relevant motivation that would give rise to a distinguishable interpretation, a lack of coreference intention is inferred.

In this respect, we can assume that (21), repeated below as (28), is not acceptable because of Rule I, and not because of a binding condition violation. That is, what (28) seems to be expressing without additional context is already very expressible by a bound variable construction, where the lower R-expression is replaced with a reflexive (e.g., (29)) (I discuss SC reflexives in detail in Chapter 3):

(28) * Kusturica poštuje Kusturicu.

Kusturica respects Kusturica

‘Kusturica respects Kusturica.’

(29) Kusturica_i poštuje sebe_i.

Kusturica respects self

‘Kusturica_i respects himself_i.’

Without a suitable context, which would license an interpretation distinguishable from the one in (29), (28) is bad. Consider now the context in (30), adapted from Evans (1980), in which (28) considerably improves:

(30) Znam šta Ana, Milan i Kusturica imaju zajedničko. Ana poštuje

I know what Ana Milan and Kusturica have common Ana respects

Kusturicu, Milan poštuje Kusturicu, a i *Kusturica* poštuje *Kusturicu*.

Kusturica Milan respects Kusturica but and Kusturica respects Kusturica

‘I know what Ana, Milan and Kusturica have in common. Ana respects

Kusturica, Milan respects Kusturica and *Kusturica* respects *Kusturica*.’

The context in (30) establishes a property which is shared by Ana, Milan and Kusturica. When applied only to (28), the property of respecting Kusturica is indistinguishable from the bound variable interpretation of respecting oneself (i.e., (29) – Kusturica (λx (x respects x))). When applied to (28) in the context of (30), however, the property shared by Ana, Milan and Kusturica is only the property of respecting Kusturica and not the

property of respecting oneself. Therefore, in the context of (30), which gives rise to a distinguishable interpretation, Reinhart's 'Rule I' does not apply and (28) becomes acceptable.

Since names in Reinhart's theory are excluded wherever reflexives and pronouns are possible, 'Rule I' is intended to completely replace Condition C as redundant. Also, it really doesn't matter for Reinhart whether the R-expression is anteceded by a pronoun or another R-expression. This is supported, for English at least, with the following example (from Grodzinsky & Reinhart, 1993: 76), where an R-expression can co-refer even with a c-commanding pronoun given an appropriate context.

(31) I know what Ann and Bill have in common. She thinks that Bill is terrific and *he* thinks that *Bill* is terrific.

However, the situation in SC is not that simple. If the R-expression in the subject position in (30) is replaced with a pronoun, the coreference reading is much more difficult to obtain:

(32)?* Znam šta Ana, Milan i Kusturica imaju zajedničko. Ana poštuje
I know what Ana Milan and Kusturica have common Ana respects
Kusturicu, Milan poštuje Kusturicu, a i on poštuje *Kusturicu*.
Kusturica Milan respects Kusturica but and he respects Kusturica
'I know what Ana, Milan and Kusturica have in common. Ana respects
Kusturica, Milan respects Kusturica and *he* respects *Kusturica*.'

The contrast between (30) and (32) seems to reflect the contrast between (21)/(28) and (22), repeated below as (33) and (34):

(33) *Kusturica poštuje Kusturicu.

Kusturica respects Kusturica

‘Kusturica respects Kusturica.’

(34) **On_i poštuje Kusturicu_i.

He respects Kusturica

‘He_i respects Kusturica_i.’

Given the analysis developed above, (33) violates only ‘Rule I’, while (34) violates both ‘Rule I’ and Condition C (as defined by Lasnik); hence, (34) is worse than (33). I also contend that for the same reason constructions like (34), in which the R-expression is anteceded by a pronoun, are not straightforwardly available in the context of (30)/(32). This is expected, since even in contexts which license a ‘distinguishable interpretation’, we do expect to see a contrast between sentences that violate only ‘Rule I’ and sentences that violate both ‘Rule I’ and Condition C.

2.3.2 *Safir (2004) and the FTIP*

In the previous section I have argued that a distinction between “Rule I” and Conditions B and C can account for a variety of interesting binding puzzles in SC. There are, however, two more questions that need to be answered. The first one concerns the

contrast between (35) and (36); i.e., the question is why, in contrast to (35), (36) is ungrammatical if these constructions involve structural relations of essentially the same kind.

(35) Kusturicin film je zaista razočarao Kusturicu .

Kusturica's film is really disappointed Kusturica

'Kusturica's film really disappointed Kusturica.'

(36) * Kusturica poštuje Kusturicu.

Kusturica's respects Kusturica

'Kusturica respects Kusturica.'

The second question is how this contrast can be related to the fact that (37) and (38) are worse than (36) (i.e., even though (36) is not good, it is clearly less degraded than (37) and (38)).

(37) **On_i poštuje Kusturicu_i.

He respects Kusturica

'He_i respects Kusturica_i.'

(38) **Kusturica_i poštuje njega_i.

Kusturica respects him

'Kusturica_i respects him_i.'

Consider first (20), repeated below as (39), and the full alternative paradigm of the construction in question:

(39) Kusturicin film je zaista razočarao Kusturicu.

Kusturica's film is really disappointed Kusturica

'Kusturica's film really disappointed Kusturica.'

(40) *Kusturicin_i film je razočarao sebe_i.

Kusturica's film is disappointed self

'Kusturica_i's film disappointed himself_i.'

(41) *Kusturicin_i film ga_i je razočarao.

Kusturica's film him is disappointed

'Kusturica_i's film disappointed him_i.'

(42) *Svoj_i film je razočarao Kusturicu_i.

Self's film is disappointed Kusturica

'Himself's film disappointed Kusturica.'

(43) *Njegov_i film je razočarao Kusturicu_i.

His film is disappointed Kusturica

'His film disappointed Kusturica.'

I discuss in detail the issue of SC reflexives in Chapter 3, but for the present purposes it is sufficient to say that the SC reflexive *sebe* and its possessive form *svoj* are similar to Norwegian *seg selv* and Japanese *zibun-zisin* in that they are strictly subject-oriented and local. Both of these elements are specified only for case, and can be bound by elements of

any gender and number. (40) is therefore ungrammatical because *sebe* is subject oriented and cannot be anteceded by the possessor of the subject (which is on this account an adjunct). (41), on the other hand, is a Condition B violation, as discussed in the previous section. (42) is a Condition A violation, and (43) a Condition C violation (again, assuming Lasnik's definition of Condition C).¹³ So, all the potential alternatives to (39) that would involve a pronoun or a reflexive are excluded on independent grounds. This is, however, not true for (36) (repeated here as (44)):

(44) * Kusturica poštuje Kusturicu.

Kusturica respects Kusturica
'Kusturica respects Kusturica.'

(45) Kusturica_i poštuje sebe_i.

Kusturica respects self
'Kusturica_i respects himself_i.'

In contrast to (39), (44) does have a successful potential alternative which involves the reflexive *sebe*. I suggest that (39) is good because all of its alternatives with reflexives or pronouns ((40)-(43)) are ungrammatical, while (44) is unacceptable because there exists a grammatical alternative to it. Also, as shown in the previous subsection, (44) becomes available in contexts which force the coreferential interpretation, but (39) is good without an extra context. For these reasons, 'Rule I', and the distinction between coindexation and coreference are not sufficient to explain the matter at hand. Namely, as shown in the previous section, the construction in (44), although generally degraded, becomes

¹³ (42) violates Condition C as well.

acceptable in contexts which support a reading distinguishable from the bound variable one. However, the construction in (39) is good without support of any such context, despite the fact that it involves structural relations of essentially the same kind as (44). More precisely, even though the logic behind ‘Rule I’ seems to match our intuition about why the presented SC constructions behave the way they do, its definition is not sufficiently precise to derive these facts. What we need is an approach which can successfully account both for the paradigm in (39)-(43) and the above-mentioned cases of coreference.

I will argue that the right approach to these issues is that of Safir (2004) and that the ‘Form to Interpretation Principle’ proposed in this theory underlies this curious set of facts. In particular, I will show that with this principle we can successfully explain all the examples presented in this section, without invoking ‘Rule I’.

A fundamental property of a competition approach to binding, to which Safir (2004) belongs, is that the internal properties of the relevant forms only place boundaries on the range of availability that a given form may have, while the full empirical distribution of the form in question, generally a narrower syntactic and interpretative space, depends on the competitions it enters into. In a nutshell, Safir’s (2004) system regulates this distribution via ‘Form to Interpretation Principle’ given in (46), and the hierarchy of dependent forms in (47):

(46) Form to Interpretation Principle (FTIP)

If x c-commands y, and z is not the most dependent form available in position y with respect to x, then y cannot be directly dependent on x.

(47) SIG-SELF >> pronoun-SELF >> SIG >> pronoun >> R-expression¹⁴

The FTIP compares competing derivations based on alternative numerations containing more dependent forms. Thus, a numeration containing the forms *he*, *respects*, *him* will result in the simplified LF in (48b). Since English has a form which is more dependent than the pronoun in the hierarchy in (47), i.e. the pronoun-SELF form, a competing derivation will be the one in (49), which is based on a numeration containing *he*, *respects*, *himself*.

- (48) a. Numeration: he, respects, him
b. LF: [*he* [respects *him*]]
- (49) a. Numeration: he, respects, himself
b. LF: [*he* [respects *himself*]]

Since the comparison determines that *him* is not the most dependent form available in the object position, the FTIP determines that the pronoun cannot be dependent on (i.e., coindexed with, in Reinhart's terms) the subject in (48b). On the competition approach such as this one we can account for the contrast between (39) and (44). (39) is good because none of its potential alternatives are grammatical (i.e., (40)-(43)), while (44) is not good because there exists a successful alternative to it (i.e., (45)). However, since it does not violate binding conditions, (44) is still less degraded than (37)-(38), and becomes accessible in contexts which support coreference readings.

¹⁴ SIG-SELF here corresponds to the local, strictly subject-oriented type of anaphor, found in Mainland Scandinavian.

The logic behind Safir (2004) is that complementary distribution in the pattern of anaphora should be derived by universal principles applying to select the “best available” form-to-interpretation match, rather than by mandating domains for each form in such a way that complementarity is accidental. The nature of what counts as complementary is relativized both with respect to the nature of the formatives involved and with respect to the nature of the interpretations that are regulated. Thus, this approach allows us to eliminate Condition B and its descendents as an independent principle regulating pronouns in the theory of anaphora. However, this aspect of Safir’s approach (and competition-based binding theories in general) clearly contradicts my assumption that Condition B (as well as Condition C) is necessary to explain SC facts. That is, Conditions B and C are necessary to exclude (41) and (43), respectively. While I believe that principles behind Safir’s theory are universal I will argue that (a particular version) of Condition B is necessary to account for the full set of facts in SC, and that the effects of the competition between pronouns and reflexives in this language are often obscured by binding conditions. In particular, I will show that exactly in cases where neither pronouns nor reflexives violate binding conditions, the morphological form of the dependent element in question becomes crucial, as predicted by the FTIP. In the next section I present these cases and justify my position with respect to Condition B in SC.

2.3.3 Condition B in SC

It is certainly not controversial to assume that binding domains for anaphors and pronouns are not identical. There is sufficient evidence, I believe, which shows that this holds for SC as well. Here I will focus on cases in SC in which the binding domains of pronouns and reflexives do not overlap.

Before presenting these cases, a few words about reflexives in SC are required. There are two reflexive elements in SC: the reflexive pronoun *sebe* and its possessive form *svoj*. *Sebe* is, as already mentioned, similar to Norwegian *seg selv* and Japanese *zibun-zisin* in that it is strictly subject-oriented and local. SC reflexive possessive form behaves the same way *sebe* does. Both of these elements are specified only for case, and can be bound by elements of any gender and number, i.e., neither *sebe* nor *svoj* “agree” with their antecedents in number and gender. In addition, *sebe* does not have the nominative form. I will take the subject-orientation of reflexives in SC for granted here, returning to it in Chapter 3.

Recall that I have argued in the previous sections that examples like (50) violate Condition B:

(50) * Kusturicin_i najnoviji film ga_i je zaista razočarao.

Kusturica’s latest film him is really disappointed

‘Kusturica_i’s latest film really disappointed him_i.’

(50), however, contrasts with (51), which is perfectly acceptable: in this example the object pronoun is embedded in an NP:

- (51) ✓ Kusturicin_i najnoviji film je zaista razočarao njegovog_i prijatelja.
Kusturica's latest film is really disappointed his friend
'Kusturica's latest movie really disappointed his_i friend.'

The same contrast obtains between (52) and (53):

- (52) *Markova_i slika mu_i je juče pala na glavu.
Marko's picture him is yesterday fell on head
'Marko's picture fell on him_i yesterday.'

- (53) ✓ Markova_i slika je juče pala njegovom_i prijatelju na glavu.
Marko's picture is yesterday fell his friend on head
'Marko's picture fell on his_i friend yesterday.'

In contrast to (50)-(51) and (52)-(53), (55) and (57), where the object R-expression is a possessive, are as unacceptable as (54) and (56) are, which supports Lasnik's (1989) definitions of Condition C and the view that locality domains for Condition B and Condition C are different.

(54) *Njegov_i najnoviji film je zaista razočarao Kusturicu_i.

His latest film is really disappointed Kusturica

‘His_i latest film really disappointed Kusturica_i.’

(55) *Njegov_i najnoviji film je zaista razočarao Kusturicinog_i prijatelja.

His latest film is really disappointed Kusturica’s friend

‘His_i latest film really disappointed Kusturica’s_i friend.’

(56) *Njegova_i slika je juče pala Marku_i na glavu.

His picture is yesterday fell Marko on head

‘His_i picture yesterday fell on Marko_i.’

(57) *Njegova_i slika je juče pala Markovom_i prijatelju na glavu.

His picture is yesterday fell Marko’s friend on head

‘His_i picture yesterday fell on Marko_i’s friend.’

To account for these facts I propose that SC employs the following, predicate-based version of Condition B:

(58) Condition B: a pronoun is free in its own predicate domain (i.e., phrase).

An element is free if it is not c-commanded by a coindexed NP.

Given (58), (50) and (52) are ruled out by Condition B, because the pronouns in these constructions are c-commanded by an element (i.e., the possessive) within their own predicate domain (i.e., the whole sentence). When the pronoun is embedded in an NP (e.g., (51) and (53)), which constitutes a separate predicate domain for the pronoun, there

is no Condition B violation, since there is no element coindexed with it that c-commands it within that NP.¹⁵ This does not apply to (55) and (57) because Condition C, as defined here, is insensitive to locality domains. At the same time, the pronominal possessive in

¹⁵ Probably the most compelling argument against a coargument approach to the binding theory concerns ECM constructions.

- (i) *John_i believes him_i to like Kathy.

An approach to Condition B violations based on a constraint on coreference between coarguments encounters difficulty with (i) because *him* is an argument of *like*, and *John* is an argument of *believe*: *John* and *him* are not coarguments, yet (i) is ungrammatical. Reinhart and Reuland (1993) argue that such cases are not Condition B violations per se, but violations of a separate syntactic condition on the formation of A-chains. It is impossible to evaluate the strength of this counterargument to the coargument approaches to Condition B in SC, simply because SC lacks ECM (and more generally raising) infinitives. However, SC does have small clause-like constructions:

- (ii) *Marko_i smatra njega_i budalom.
 Marko_{NOM} considers him_{ACC} fool_{INSTR}
 ‘Marko considers him a fool.’

One way of dealing with the fact that (ii) is ungrammatical is to assume that there is a raising operation, by which the subject of the small clause *njega* ‘him’ moves into the higher clause for Case purposes. Thus although it can be argued that the small clause subject does not become a thematic object of *consider*, it does become an object with respect to Case, which could also violate Condition B (see Lasnik and Saito (1991), and many others, for a similar approach to English ECM constructions). I would here suggest the possibility that *consider* and *fool* form a complex predicate, with *fool* incorporating into *consider* in LF, in which case the ‘consider + fool’ complex both Case- and θ -marks *fool*. Alternatively, we may assume that a sentence like (ii) has a structure like (iii) (see Bailyn (2001) for a discussion):

- (iii) Marko smatra njega_i [_{PredP} PRO_i budalom].
 Marko_{NOM} considers him_{ACC} fool_{INSTR}
 ‘Marko considers him a fool.’

Secondary predication in (iii) is directly represented by a functional category Pred(ication)P, as argued for in Bowers (1993); the subject of PredP is PRO, which is controlled by the object *njega* him. On this alternative (ii) also violates Condition B. Finally, it can also be argued that *smatrati* ‘consider’ in SC (ii) is not involved in a small clause at all, but is in fact a three place predicate which takes two objects (i.e., him_{ACC} and fool_{INSTR}). Support for this may come from the fact that when *smatrati* combines with a clause (which is, unlike in English, clearly a full CP) it has a different meaning from *smatrati* in (ii); it roughly means ‘think’:

- (iv) Ja smatram da će Igor završiti posao na vreme.
 I consider that will Igor_{NOM} finish job_{ACC} on time
 ‘I think that Igor will finish the job on time.’
 *‘I consider that Igor will finish the job on time’

Moreover, a structure like the one in (ii) is ungrammatical when any of the object NPs is missing:

- (v) Marko smatra *(Igora) *(budalom).
 Marko_{NOM} considers Igor_{ACC} fool_{INSTR}
 ‘Marko considers Igor a fool.’

(51)-(53) cannot be replaced by a reflexive possessive *svoj*, because *svoj* is subject oriented¹⁶:

(59) *Kusturica_i najnoviji film je zaista razočarao svog_i prijatelja.

Kusturica's latest film is really disappointed self's friend

The question is then whether the acceptability of (51) should be related to the fact that (59) is impossible, or not. The right construction to look at is the following:

(60) a.??Kusturica_i je razočarao njegovog_i prijatelja.

Kusturica is disappointed his friend

b. Kusturica_i je razočarao svog_i prijatelja.

Kusturica is disappointed self's friend

'Kusturica_i disappointed his_i friend.'

There are two pieces of information that are important in this respect. First, it is fairly well known that native speakers of SC often produce constructions like (60a), which are argued by traditional grammars to be unacceptable (e.g., Stevanović, 1962: 97). Native speakers, however, never produce (61) with the indicated coindexation:

¹⁶ See Chapter 3, section 3.2.3 for a discussion of NP-internal binding of pronouns and reflexives in SC.

(61) **Kusturica_i je razočarao njega_i.

Kusturica is disappointed him

‘Kusturica_i disappointed him_i.’

Second, constructions like (60a) become fully acceptable when the possessive pronoun is anteceded by a coordinated NP:

(62) Fuji Heavy Industries Ltd_i i Sumitomo Corp._j su predstavili njihov_{i+j} zajednički

Fuji Heavy Industries Ltd_i and Sumitomo Corp are introduced their joint

samostalni robotski sistem za čišćenje podova u Sumitomo zgradi u Osaki.

independent robotic system for cleaning floors in Sumitomo building in Osaka

‘Fuji Heavy Industries Ltd_i and Sumitomo Corp._j introduced their_{i+j} joint

independent floor cleaning robotic system in the Sumitomo building in Osaka.’

www.otpornik.info/zanimljivosti/.../101-robot-usisivac.html

On the present approach (60a) falls out quite straightforwardly. It does not violate Condition B, given the definition in (58); its relative unacceptability is a result of a competition between reflexives and pronouns. Namely, a more dependent form *svoj* ‘self’s’ is available in this construction (e.g., (60b)) and it does not outcompete the less dependent form *njegov* ‘his’. Significantly, exactly in cases like this *njegov* becomes fully acceptable when the coreference reading is forced, which shows that it really doesn’t violate Condition B. Consider the following examples from Marelj (in press):

(63) a. Feliks mrzi njegovog komšiju, a i Maks takodje. (strict reading)

Felix hates his neighbor but and Max too

b. Feliks mrzi svog komšiju, a i Maks takodje. (sloppy reading)

Felix hates self's neighbor but and Max too

'Felix hates his neighbor Max does too.'

The strict reading, indicating coreference (or 'covaluation' in Marelj's terms), arises with the use of *njegov* in (63a) and the sloppy reading, indicating coindexation, is restricted to the use of *svoj* in (63b). (64) exhibits similar effects:

(64) a. Samo Lusi poštuje njenog supruga (coreference)

Only Lucie respects her husband

b. Samo Lusi poštuje svog supruga (coindexation)

Only Lucie respects self's husband

(64a) entails that other women do not respect Lucie's husband, while (64b) entails that, unlike Lucie, other women do not respect their own husbands. Thus, when the pronoun does not violate Condition B it becomes perfectly available in contexts with coreferential interpretation, which reflexives in general cannot support. These facts in turn support the view of Condition B advanced here.

However, any approach that attempts to seriously investigate issues of the pronoun/reflexive complementarity needs to accommodate cases of coreference one way or another. It is well established that overlaps in the distribution of pronominal and

reflexive forms often involve the representation of distinct interpretations, and (63) and (64) are just another example of that.¹⁷ Structures like (62), on the other hand, are particularly interesting because they are not limited to coreference. That is, these structures allow pronouns in places in which reflexives are possible and at the same time they have a bound variable interpretation:

(65) Context:

Samo nekoliko autora je predstavilo svoje najnovije knjige na nedavnoj konferenciji.

Only few authors are presented self's latest books on recent conference.

Recimo...

For instance

'Only a few authors have presented their latest books at a recent conference. For instance...'

Čomski_i i Lasnik_j su predstavili njihovu_{i+j} najnoviju zajedničku knjigu dok

Chomsky and Lasnik are presented their latest joint book while

Pollard_k i Sag_m nisu.

Pollard and Sag neg

'Chomsky and Lasnik have presented their latest (joint) book while Pollard and Sag have not.'

¹⁷ See Safir (2004; section 3.3.3) for an overview of strategies for apparent noncomplementarity of distribution, which among others includes cases in which interpretations are distinct.

In the first conjunct, the pronoun is assigned the same referent as ‘Chomsky and Lasnik’, whether it is bound by ‘Chomsky and Lasnik’ or coreferent with it. The interpretation of the pronoun in the elided VP is crucial, though. The elided *njihovu* can be assigned the same referent as ‘Pollard and Sag’, that is, the sentence can have the sloppy interpretation. In order to license ellipsis, I assume a ‘parallelism’ requirement that the elided element be identical to the ‘antecedent’ VP (in certain relevant respects). Thus, (62) and (65) have bound variable interpretation and are not cases of obligatory coreference.

The crucial difference between (62)/(65) and (63a) is that the subjects in (62)/(65) are coordinated NPs and therefore interpreted as plural. SC reflexives *sebe* and *svoj* are underspecified for ϕ -features, e.g., they do not have distinct singular and plural forms. SC pronouns, on the other hand, do have separate singular and plural forms (e.g., *njegov* ‘his’ and *njihov* ‘their’). I will assume that this morphological contrast makes SC pronouns much more accessible for the so-called ‘collective interpretation’ of the antecedent. At the same time, SC reflexives tend to support ‘distributive readings’.¹⁸ The adjective *zajednički* ‘joint’ in (62)/(65) unambiguously presupposes the collective reading of the subject antecedent and the pronominal form becomes clearly available. The approach of Safir (2004) is directly relevant for these examples, since one of its general goals is to explain why pronouns may express reflexive relationships if the morphology of a language has no dedicated reflexive form available. On this approach, if a language happens not to have a dedicated reflexive form, then by the FTIP, introduced in the previous subsection, the pronoun will display the familiar absence of Condition B effects. For instance, Danish simple reflexives cannot have plural antecedents while Norwegian

¹⁸ See Avrutin (1994) for a discussion of similar examples in Russian.

ones in most dialects can, with the result that in Danish a plural pronoun replaces the reflexive for the local bound reading, as predicted by the competitive theory (Safir 2004, 72 – originally from Vikner 1985):

(66) a. *John læste sin/*hans artikel.*

John read SIN/his article

b. *John og Mary læste *sine/deres artikler.*

John and Mary read SIN/their paper

In Danish the SIG form for possessives, *sin*, only obviates pronouns when its antecedent is singular. In (66b) Danish *sin* is not acceptable and hence does not obviate the plural nonanaphoric pronoun.¹⁹

I believe that this analysis can successfully account for the SC facts in question as well. Since SC reflexives are underspecified for number, and since they strongly tend to support distributive interpretation, the pronoun becomes available exactly when collective interpretation is forced. In other words, due to their morphological simplicity (namely, the fact that they do not have plural forms) SC reflexives become irrelevant for the purposes of competition with pronouns when the antecedent has the collective reading. Collective interpretation does not, however, entail the lack of a bound variable interpretation in any way, and it is therefore not surprising that the structure in (65) licenses the sloppy reading.

It is clear that SC facts support competition approaches to pronouns and reflexives, and the question is then whether the competition in question is sufficiently

¹⁹ Note that on the present approach Condition B is not violated in (66), only the competition principle.

significant to derive Condition B as well, which is one of the ultimate goals of such approaches. I believe, given the facts discussed so far, that Condition B is a principle of its own in SC and that it cannot be dispensed with (see Chapter 3, section 3.2.3 for further arguments in support of this view). At the same time, the data above strongly suggest that pronouns and reflexives do compete in this language, and that Condition B often camouflages effects of that competition, which become visible exactly in situations in which Condition B is not violated. For instance, in contrast to (65), (67) is ungrammatical because it violates Condition B on this approach, which makes it impossible to conclude anything about the relation between pronouns and reflexives:

(67) * Čomski_i i Lasnik_j su predstavili njih_{i+j} (zajedno).

Chomsky and Lasnik are presented they (together)

‘Chomsky and Lasnik have presented themselves.’

One could possibly come up with a context that would support a reading distinguishable from the bound variable one, and make this sentence (relatively) acceptable, but this would then be a case of coreference and would not tell us much about the principles that underlie the competition between anaphors and pronouns.

Given that binding conditions are irrelevant for coreference as long as there is enough pragmatic force that would support interpretations distinguishable from the bound variable reading it is expected that constructions like (68), which by assumption violate only Condition B (not the competition mechanism), should easily improve in the right context. (69) illustrates this point:

(68) *Kusturicin_i film ga_i je razočarao.

Kusturica's film him is disappointed

'Kusturica_i's film disappointed him_i.'

(69) Znam šta Milanova knjiga i Kusturicin film imaju zajedničko. Milanova knjiga

I know what Milan's book and Kusturica's film have common. Milan's book
je razočarala *Kusturicu*, a i *Kusturicin* film ga je razočarao.

is disappointed Kusturica but and Kusturica's film him is disappointed

'I know what Milan's book and Kusturica's film have in common. Milan's book
disappointed Kusturica and Kusturica's movie disappointed him too.'

On the bound reading '*Kusturicin* film ga je razočarao' would be interpreted as
(Kusturica (λx (x's film disappointed x))), which is clearly not the intended meaning of
(69), in which Kusturica is disappointed both with his own film and Marko's book.

The analysis developed here also accounts for the contrast between (70) and (71).
Following Reinhart and Reuland (1993), who in turn follow Marantz (1984), we can
assume that the two PPs in these two constructions are not of the same type: in (70) the
pronoun and the antecedent are thematic arguments, whereas in (71) the PP is not
selected by the verb; it is a separate predicate, and forms a binding domain for the
pronoun on its own.

(70) **Jovan_i se raspravlja sa njim_i.

John argues with him

'John_i argues with him_i.'

(71) ??Jovan_i je osetio zmiju negde blizu njega_i.

John is felt snake somewhere near him

‘John_i felt a snake somewhere near him_i.’

(70) violates both Condition B and the competitive principle, while (71) violates only the latter, since *sebe* ‘self’ is available. When the pronoun is embedded in an NP, (70) significantly improves, since as predicted it no longer violates Condition B. (71), on the other hand, does not violate Condition B to begin with and embedding the pronoun in an NP does not change its status significantly.

(72) ??Jovan_i se raspravlja sa njegovim_i ocem.

John argues with his father

‘John_i argues with his_i father.’

(73) ??Jovan_i je osetio zmiju negde blizu njegove_i kuće.

John is felt snake somewhere near his house

‘John_i felt a snake somewhere near his_i house.’

2.3.4 On the Anti-Subject Orientation of Pronouns

The above discussion raises some issues regarding a frequent proposal that pronouns in SC and Slavic are ‘anti-subject oriented’ and that an independent principle of the grammar is responsible for this. The anti-subject orientation of pronouns has been discussed by a number of authors (e.g., Vikner 1985, Hestvik 1992, Hellan 1988, Burzio 1989, 1991, Safir 2004, among others); the central empirical motivation for this proposal is that in many languages pronouns are required to be free from closest subjects whereas English pronouns are not. At the same time, in these languages pronouns may be anteceded by a subject if another subject or a tensed clause boundary intervenes, which seems to be true of SC and many Slavic languages as well. Therefore, the term ‘anti-subject orientation’ comes from the fact that there is no requirement of being free from a higher object, even if this object is closer than the subject. Thus, on the anti-subject orientation view the fact that the pronoun in (74) cannot be anteceded by the subject is due to an independent principle that prevents the pronoun from being anteceded by the subject.

(74)*Jovan_i je pričao Marku_j o njemu_{j/*i}.

John_i is talked Marko_j about him

‘John talked to Marko about him.’

There are two essential aspects that characterize the anti-subject orientation proposal, each of which is falsified here: (i) pronouns cannot be anteceded by subjects, and (ii) that

fact that they cannot be anteceded by subjects is completely independent from the distribution of reflexives. Constructions like (62)/(65) and (50)/(51), however, pose an immediate challenge to each of these, since (i) pronouns can clearly be anteceded by subjects, and (ii) they may be anteceded by the subject exactly in those contexts in which the reflexive is unavailable. This strongly suggests that the anti-subject orientation of pronouns is contingent on the availability of subject-oriented reflexives. The distinction between (75) and (76) given below is particularly instructive; the pronoun competes with the reflexive only in (75), and exactly when the reflexive is excluded from the competition due to its own subject-orientation requirement, the sentence becomes acceptable.

(75) ?? Kusturica_i je razočarao njegovog_i prijatelja.

Kusturica is disappointed his friend

‘Kusturica_i disappointed his_i friend.’

(76) ✓ Kusturicin_i najnoviji film je zaista razočarao njegovog_i prijatelja.

Kusturica’s latest film is really disappointed his friend

‘Kusturica_i’s latest movie really disappointed his_i friend.’

Another fact that remains unaccounted for under the anti-subject orientation approach is that (77) and (78) differ in acceptability:

(77) **Marko_i voli njega_i.

Marko loves him

‘Marko loves him.’

(78) ??Marko_i voli njegovog_i psa.

Marko loves his dog

‘Marko loves his dog.’

On the approach advanced here this contrast is straightforwardly accounted for; namely, (77) violates both Condition B and the competition principle, while (78) violates only the latter. Thus, SC facts discussed so far lend strong support to approaches on which the existence of anti-subject oriented pronouns in a language is a natural consequence of the distribution of subject oriented anaphors in that language (e.g., Hellan 1988, Burzio 1989, 1991, Safir 2004), and not a result of some independent principle.

2.4 Conditions B and C, QPs and Movement

One of the main points of the present analysis is that what is traditionally regarded as Condition B effects can (and should) be dissolved into two separate types of violations: violations of the “real” Condition B and violations of the competitive principle. Thus, (79) violates both Condition B and the competitive principle, while (80) violates only the former:

(79) **Kusturica_i je kritikovao njega_i.

Kusturica is criticize him

‘Kusturica_i criticized him_i.’

(80) *Kusturicin_i prijatelj je kritikovao njega_i.

Kusturica’s friend is criticized him

‘Kusturica_i’s friend criticized him_i.’

A structure like (81), on the other hand, violates only the competitive principle:

(81) ??Kusturica_i je kritikovao njegovog_i prijatelja.

Kusturica is criticized his friend

‘Kusturica_i criticized his_i friend’

The direct prediction of this theory then is that “pure” Condition B violations of the sort exemplified in (80) should disappear in the right structural contexts. More precisely, if the possessor in (80) does not c-command the pronoun there should be no violation of Condition B. One way of achieving this effect, for instance, is to add an extra projection that would immediately dominate the subject in (80), and which would block the possessor from c-commanding the object pronoun.

It has been argued by a variety of authors (e.g., Franks, 1994, Bošković, 2006) that certain numerals and quantifiers in SC project QP, taking the whole NP as its complement, e.g., [_{QP} [_Q Q NP]] (see the references in question for more details). These quantifiers assign genitive to the noun they modify and they do not agree with it, and for

these reasons they are standardly called Genitive-of-Quantification (GenQ) quantifiers.²⁰

When a quantifier of this type modifies the subject of structures like (80), Condition B effects disappear, as expected:

(82) Genitive of Quantification *Mnogo* ‘Many’

[_{QP} [_Q *Mnogo* [_{NP} *Kusturicinih*_i [_{NP} *prijatelja*]]]] je kritikovalo njega_i.

Many Kusturica_i’_{SGEN} friends_{GEN} is criticized him_i

‘Many of Kusturica_i’s friends criticized him_i.’

In (82) the GenQ *mnogo* projects a QP immediately dominating the subject NP and the possessor *Kusturicinih* ‘Kusturica’s’. The possessor does not c-command the object pronoun, and consequently, Condition B is not violated. This also explains the contrast in (83)-(84):

(83) **Njegov_i prijatelj je kritikovao Kusturicu_i*.

His friend is criticized Kusturica

‘His friend criticized Kusturica_i.’

²⁰ NPs modified by Gen-Qs always have genitive case, regardless of whether they are in the subject or object position:

- (i) Video sam Kusturicine prijatelje.
Seen am Kusturica’s_{ACC} friends_{ACC}
‘I saw Kusturica’s friends.’
- (ii) Video sam mnogo Kusturicinih prijatelja.
Seen am many Kusturica’s_{GEN} friends_{GEN}
‘I saw many Kusturica’s friends.’

In (i) the verb assigns accusative to the object NP ‘Kusturica’s friends’. However, when the object phrase is modified by the Gen-Q *mnogo* ‘many’, as in (ii), it is necessarily assigned genitive.

(84) Genitive of Quantification *Mnogo* ‘Many’

[_{QP} [_Q *Mnogo* [_{NP} *njegovih*_i [_{NP} *prijatelja*]]]] je kritikovalo *Kusturicu*_i.

Many his_{GEN} friends_{GEN} is criticized *Kusturica*_i

‘Many of his_i friends criticized *Kusturica*_i .’

(83) violates Condition C since the pronominal possessor c-commands the object R-expression. In (84), on the other hand, there is no Condition C violation due to the presence of QP which blocks the possessor *njegovih* ‘his’ from c-commanding *Kusturicu* ‘*Kusturica*’.²¹

It is important to note here again that arguing for a lack of DP does not entail arguing for a complete lack of functional projections in the nominal domain in languages without DP. From the perspective of the no-DP approach advanced here, it is perfectly plausible to find languages without DP, but with some other functional projection in the nominal domain. I contend that SC GenQs are an example of that, since in this case there is independent evidence from c-command relations for the presence of extra structure. The same type of evidence is, however, absent in cases involving NPs with demonstratives. That is, as already pointed out in this chapter, structures like (85) violate Condition C:

²¹ There are in fact two different types of quantifiers in SC; i.e., in addition to GenQ quantifiers, there are also quantifiers which behave like adjectives (and possessives and demonstratives) in that they agree with the noun they modify in case and ϕ -features. Thus, in addition to the GenQ quantifier *many* ‘*mnogo*’, illustrated in (84), SC also has the “agreeing” *many*: ‘*mnogi*’. On the present approach quantifiers of the latter type (e.g., the “agreeing” *many*) are analyzed as adjoined to NP. As predicted, these adjunct quantifiers do not block violations of Conditions B and C because they do not project a QP which immediately dominates the NP they modify:

- (i) *?_{[NP Mnogi} [_{NP njegovi}_i [_{NP prijatelji}]]] su kritikovali *Kusturicu*_i.
 Many_{NOM} his_{NOM} friends_{NOM} are criticized_{3/PL} *Kusturica*_i
 ‘Many of his_i friends criticized *Kusturica*_i’

(85) *_{[NP Ovaj [_{NP njegov_i [_{NP film]]]]} je zaista razočarao Kusturicu_i.}}

This his film is really disappointed Kusturica

‘This film of his_i really disappointed Kusturica_i.’

I come back to these issues in Chapter 4, where I argue that a particular kind of intensifier in SC also projects a phrase above NP.

Another way of avoiding configurations which induce violations of binding conditions is movement. I will now argue that certain binding condition violations can be “repaired” by movement. Consider the contrast between the following two examples:

(86) a. *_{Njegov_i najnoviji film] je zaista razočarao Kusturicu_i.}

His latest film is really disappointed Kusturica_{ACC}

‘His_i latest film really disappointed Kusturica_i.’

b. ✓_{Kusturicu_i je njegov_i najnoviji film zaista razočarao t.}

Kusturica_{ACC} is his latest film really disappointed

There is a clear contrast in the acceptability between (86a) and (86b); unlike the unacceptable example in (86a), the example in (86b) is perfect. The only structural difference between these two examples is that the object R-expression *Kusturicu* ‘Kusturica’ has moved above the sentential subject in (86b).

These facts are easily accounted for under the analysis presented in this chapter. As already argued, (86a) violates Condition C since the pronominal possessor *njegov* ‘his’ c-commands *Kusturicu* ‘Kusturica’. In (86b), on the other hand, *njegov* does not c-

command *Kusturicu*, so there can be no Condition C violation. Also, there is no Condition B violation in (86b) since the pronoun is free in its binding domain (i.e., NP), given the definition of Condition B given in (58) (repeated below as (87)).

(87) Condition B: a pronoun is free in its own predicate domain (i.e., phrase).

An element is free if it is not c-commanded by a coindexed NP.

Furthermore, the competitive principle is not violated either since anaphors are, due to their strict subject orientation (to which I come back in the next chapter), unavailable in the possessor position in (86b). That is, the reflexive possessive *svoj* cannot be anteceded by the object *Kusturicu*. Thus, the actual state of affairs is exactly predicted by the theory advanced here.

There are two additional predictions that this analysis makes regarding the examples in (86), which are also borne out. First, since the pronoun in (86b) does not violate Condition B we expect it to be able to function as a bound variable. That this prediction is borne out is shown by the following examples:

(88) a. $Svakome_i$ je $njegova_i$ muka $najveća$ t_i . (SC idiom)

Everyone_{DAT} is his_{NOM} trouble_{NOM} greatest

‘To everyone_i his_i trouble is the greatest.’

(‘Everyone_i thinks that his_i trouble is the greatest.’)

b. * $Njegova_i$ muka je $najveća$ $svakome_i$.

His_i trouble is greatest everybody_{DAT}

(89) a. Svakog generala_i njegov_i vojnici vole t_i.

Every_{ACC} general_{ACC} his_{NOM} soldiers_{NOM} love

‘Every general is loved by his soldiers.’

b. *Njegovi_i vojnici vole svakog generala_i

His_{NOM} soldiers_{NOM} love every_{ACC} general_{ACC}

(88a) and (89a) show that the pronominal possessive can function as a variable only if the quantifier moves to a position above the sentential subject from which it can c-command the pronoun. When it stays in the lower position, as in (88b) and (89b), the sentences are unacceptable.

Second, we expect that Condition C violations like (86a) cannot be “repaired” by moving the object R-expression above the sentential subject if the pronoun itself is the subject.

(90) *On_i je zaista razočarao Kusturicu_i.

He is really disappointed Kusturica_{ACC}

‘He_i really disappointed Kusturica_i.’

(91) *Kusturicu_i je on_i zaista razočarao t_i.

Kusturica_{ACC} is he really disappointed

The pronoun in (91) is not embedded in a separate domain (i.e., NP), as it is in (86b), and therefore it violates Condition B. In other words, unlike (86a), (90) cannot be “fixed” by moving *Kusturicu* ‘Kusturica’ to a position c-commanding the subject, since this

movement induces a Condition B violation (i.e., the pronoun *on* ‘he’ in (91) is not free in its domain, which is in this case the whole sentence).

Now, note that this analysis differs from the traditional approach to constructions like (91), according to which (91) violates Condition C. That is, (91) may involve Strong Crossover, which is usually explained away by assuming that traces left behind by A-bar movement are R-expressions, which cannot be A-bound. In particular, on this analysis, the subject pronoun in (91) c-commands the trace of *Kusturicu*, and therefore induces a Condition C violation. Although the example in (91) may appear to also violate Condition C, I contend that its ungrammaticality is actually due to a Condition B violation.²² In particular, I show that examples like (91) in which the R-expression does not c-command the subject pronoun are in fact good.

First, it has to be pointed out that the simple lack of c-command is not sufficient. Consider the following ungrammatical example.

(92) *[Sliku Kusturicinog_i prijatelja]_j je on_i video t_j.

Picture_{ACC} Kusturica’s_{GEN} friend_{GEN} is he seen.

‘He saw the picture of Kusturica’s friend.’

Although the R-expression *Kusturicinog* ‘Kusturica’s’ in (92) does not c-command the subject pronoun since it is embedded in the NP *sliku* ‘picture’, the sentence is

²² Higginbotham (1980) presents examples like (i) which challenge the traditional explanation of Strong Crossover:

- (i) a. **Whose* mother does *he* love?
 b. [*whose*₁ mother]₂ does *he*₁ love *e*₂.

The index of the trace left by *whose mother* is different from the index of *whose* and *he*, and it is not really clear how this would then induce a Condition C violation on the standard approach to Strong Crossover.

ungrammatical. However, the underlying structure of (92) violates the competition principle because the reflexive possessive *svoju* is available in the place of the R-expression *Kusturicinog* ‘Kusturica’s’:

(93) a. ✓*On_i je video [sliku svog_i prijatelja].*

He is seen picture_{ACC} self’_{SGEN} friend_{GEN}

‘He saw the picture of his friend.’

b. ✓*[Sliku svog_i prijatelja]_j je on_i video t_j.*

Picture_{ACC} self’_{SGEN} friend_{GEN} is he seen.

‘He saw the picture of his friend.’

In order to control for the effect of the competition principle, the R-expression in the relevant examples must be embedded deep enough so that it does not compete with the reflexive. In other words, when the reflexive is excluded on independent grounds, because of its own locality domain restrictions (i.e., when the R-expression is embedded in a separate clause) examples like (91)-(92) become grammatical.

(94) a. ✓*[Poklone koje Marko_i dobije od nepoznatih lica]_j on_i uvek prvo dobro*

Presents which Marko receives from unknown individuals he always first well

pregleda t_j.

inspects

‘He always first thoroughly inspects [the presents which Marko receives from unknown individuals].’

- b. *On_i uvek prvo dobro pregleda [poklone koje Marko_i dobije od nepoznatih
He always first well inspects presents which Marko receives from unknown
lica].
individuals
- c. ✓[Tvrđnje američkih medija da se Anđelina_i i Bred razvode]_j ona_i nikad nije javno
Claims American media that refl A. and B. divorce she never is-not publicly
potvrdila t_j.
confirmed
'She never confirmed [the claims of the American media that Angelina and Brad
are getting divorced].'
- d. *Ona_i nikad nije javno potvrdila [tvrđnje američkih medija da se Anđelina_i i
She never is-not publicly confirmed claims American media that refl A. and
Bred razvode].
B. divorced

Thus, both (94a) and (94c) are acceptable, even though they involve a different type of clause; i.e., a relative clause, and an argument clause, respectively (see Lebeaux 1988, Lasnik 1998, Stepanov 2001, among others, for the relevant discussion).

Note also that the same type of contrast can be observed in constructions with adjunct clauses:

(95) a. ✓ Čim su Marija, Ivana i Marko_i ušli u auto, on_i je počeo da plače.

As soon as are Mary Ivana and Marko entered in car he is started crying

‘As soon as Mary, Ivana and Marko entered the bus, he started crying.’

b. * On_i je počeo da plače čim su Marija, Ivana i Marko_i ušli u auto.

he is started crying as soon as are Mary Ivana and Marko entered in car

‘He started crying as soon as Mary, Ivana and Marko entered the bus.’

The theory argued for in this chapter, thus, provides a principled explanation for the grammaticality status of (91), (92) and (94a/c). These facts, on the other hand, appear to be problematic for the standard approach to such constructions involving Strong Crossover, on which their ungrammaticality is due to a Condition C violation (e.g., (91) violates Condition C because the subject pronoun c-commands the trace, which by assumption is an R-expression). In particular, the traditional analysis has a difficulty in accounting for the contrast between (92) and (94a/c) (in addition to (91)). On the current theory, these examples do not violate Condition B, in contrast to (91); however, while (92) violates the competition principle, (94a/c) do not.

Note finally that the movement strategy can repair only structures violating Condition C, but not the ones violating Condition B.

(96) *Kusturicin_i najnoviji film je zaista razočarao njega_i.

Kusturica’s latest film is really disappointed him_{ACC}

‘Kusturica’s_i latest film really disappointed him_i.’

(97) *Njega_i je Kusturicin_i najnoviji film zaista razočarao t_i.

Him_{ACC} is Kusturica's latest film really disappointed

(96) violates Condition B because *Kusturicin* 'Kusturica's' c-commands the pronoun *njega* 'him'. In (97), on the other hand, there is no Condition B violation since the pronoun moves above the sentential subject, and the possessor *Kusturicin* 'Kusturica's' no longer commands it. However, the pronoun in (97) now c-commands the R-expression and induces a Condition C violation, given the definition of Condition C adopted from Lasnik (1989) and repeated below:

(98) An R-expression is pronoun-free.

On this definition there is no particular domain in which an R-expression must be pronoun-free; as long as an R-expression is c-commanded by a coindexed pronoun Condition C will be violated. In other words, structures like (97) will always violate Condition C regardless of whether the R-expression in question is the possessor of the subject or the subject itself. Thus, (99b) is also ungrammatical, as expected:

(99) a. *Kusturica_i je zaista razočarao njega_i.

Kusturica_{NOM} is really disappointed him_{ACC}

'Kusturica_i really disappointed him_i.'

b. *Njega_i je Kusturica_i zaista razočarao t_i.

Him_{ACC} is Kusturica_{NOM} really disappointed

It is not really clear how the facts presented in this section could be explained by the DP-based approaches to SC NP. The theory presented in this chapter, on the other hand, accounts for them in a fairly straightforward manner.

2.5 The Case of SC Reciprocals

The question that is directly relevant to the analysis proposed in this chapter, and therefore needs to be addressed in a proper manner, is the case of SC reciprocals. Given the discussion so far, we expect (100) to be good, i.e., if the possessor is only an adjunct of the subject NP we expect it to license the reciprocal in the object position:²³

(100) **Milanov i Petrov/Njihov_i otac poštuje [jedan drugoga]_i.*

Milan's and Peter's/Their father respects one another

'Milan's and Peter's/Their father respects each other.'

Here one cannot appeal to a subject-orientation argument, as in the case of reflexives from the previous subsection, since (101) is grammatical (*ih* 'them' refers to a female couple here; I come back to these examples):

(101) a. *Preporučio ih_i je [jednu drugoj]_i.*

Recommended them is one another

'He recommended them to each other.'

²³ A fairly well-known fact about SC and Slavic morphology is that the possessive adjective cannot be derived from plural nouns (I discuss this in Despić 2010). Therefore, the examples of this sort have to be constructed either from pronominal plural possessives or from coordinated possessives.

b. Upoznao ih_i je [jednu sa drugom]_i.

Introduced them is one with another

‘He introduced them to each other.’

In other words, (100) cannot be ungrammatical because the possessive is not a subject, as proposed for reflexives *sebe* and *svoj*; i.e., (101) shows that reciprocals are not subject oriented. In order to account for these facts, I adopt Heim, Lasnik, and May’s (1991) (henceforth HLM) analysis of reciprocals, which in itself is sufficient to rule out (100) in a way consistent with my proposals.²⁴

The basic assumption that underlies HLM’s account of reciprocal sentences is that one part of the reciprocal pronoun undergoes movement in the mapping onto the LF representation. More specifically, they take that a marker of distribution, the element *each* in the English case, is removed from its surface position and adjoined at LF to its “antecedent” phrase. The example of this mapping is illustrated below (HLM: 66):

(102) The man saw each other: [S [NP [NP the men]₁ each₂] [VP saw [NP e₂ other]₃]]

HLM also assume further applications of QR to the subject and the object NPs for this structure, which yield the following representation in LF:

(103) [S [NP [NP the men]_i each₂] [S e₂ [VP[NP e₂ other]₃ [VP saw e₃]]]]

²⁴ SC reciprocal *jedan drugoga* largely replicates the behavior of English *each other* or *one another*; in fact it is morphologically more similar to *one another* than to *each other*, which is not problematic given that HLM propose the same analysis for both of them.

In a nutshell, HLM propose that sentences with reciprocals can be broken down into four parts:

Group - denoting antecedent – distributor – reciprocator – predicate

The first three parts here correspond to the subject NP, *each*, and *e other*, respectively. The idea is that both *each* and its residue after movement (namely, *e other*) are operators – the former on the subject NP, the latter on the predicate VP – which form complex expressions. In turn, the former derived expression takes the latter as its argument. So, through the operation of *each* moving to the subject NP, a distributed NP is built, whereas *e other* is a reciprocator, and it stands as the argument of the distributed expression.

HLM also propose that reciprocals contain both an anaphoric and non-anaphoric part. More precisely, *e* of *each* is an anaphor, and [*e other*] is an R-expression. This means that the trace arising from the movement of *each* must be bound in its binding domain, whereas the residue phrase of that movement must be free in all categories. So, in (102) (repeated below as (104)), the trace is A-bound by the subject NP, whereas the phrase containing it is free, since it and the subject are conjoined.

(104) The man saw each other: [s [NP [NP the men]₁ each₂] [VP saw [NP e₂ other]₃]]

The reasoning here is related to certain assumptions about the more general properties of the indexing of plural phrases, and the semantics of reciprocals. First, HLM suggest that

plural NPs can bear two indices, called range and distribution indices. In reciprocal constructions this distinction is overtly specified, the distribution index being the one contributed by *each*. The obligatory distribution induced by the explicit occurrence of *each* in reciprocals is comparable to the obligatory understanding of the sentence like *The men each left*, where the distributor is equally overt. Second, the *other* found in *each other* and *one another* has the properties of pronominal *other*, and it has two implicit arguments – contrast and range argument, i.e., put more informally *other* is interpreted as “(part of) *y* not identical with *x*”. Its internal range and contrast arguments are always supplied anaphorically; specifically, the range argument will always be coreferential with the group-denoting antecedent of the reciprocal, whereas the contrast argument will always be a variable bound by *each*.

Leaving aside the details of HLM’s analysis I concentrate now on the assumption that is most important for the present discussion – *each of each other* is on their approach removed from its surface position and adjoined in LF to its “antecedent” phrase. I will assume that similar holds for SC; *jedan* ‘each’ of *jedan drugi* ‘each other’ also adjoins to its antecedent phrase in LF. However, if the antecedent phrase in question is the possessor, which on the present analysis is an adjunct, we would have an instance of adjunction to an adjunct. Now, this is a very suspicious type of movement which has been argued by many on independent grounds to be completely impossible.

For instance, Saito (1994) argues that in Japanese adjunction to adjuncts is impossible (Saito 1994; 224) (see also Chomsky 1986a, where adjunction to adjuncts is also banned). Takahashi (1994) also proposes a specific account of the Adjunct Condition

(i.e., the ban of extraction out of adjuncts) which relies crucially on the necessity of the prohibition on adjunction to adjuncts.

I therefore suggest that the SC reciprocal cannot be anteceded by a possessor because *jedan* ‘each’ of *jedan drugi* ‘each other’ cannot adjoin to it at LF, as this would involve adjunction to an adjunct.²⁵ This assumption is completely compatible with the fact that SC possessors, which are adjuncts, in general cannot take any modifiers; that is, as shown in Chapter 1, no element can be adjoined to the possessor and modify it:

(105) a. *Lepi čovekov pas.

Beautiful man’s dog

‘Beautiful man’s dog’ (it can only mean: ‘The man’s beautiful dog’)

b. *Svaki čovekov pas.

Every man’s dog

‘Every man’s dog’ (it can only mean: ‘The man’s every dog’)

c. *Ivanov bratov pas

Ivan’s brother’s dog

‘Ivan’s brother’s dog.’

²⁵ Takahashi (1994) does not only ban adjunction to adjuncts, but also adjunction to moved elements which is a crucial component of his account of the ban on movement out of moved elements. Assuming Takahashi’s claims, we can explain the ungrammaticality of (ib):

(i) a. *[Priatelj]i [jednog drugog] vole [Marka i Petra].

Friends each other love Marko and Peter
‘Friends of each other love Marko and Peter.’

b. *[Marka i Petra]_i [priatelj]i [jednog drugog] vole t_i.

The sentence in (ia) is ungrammatical since the reciprocal *jednog drugog* ‘each other’ is not c-commanded by its antecedent, namely the NP *Marka i Petra* ‘Marko and Peter’. In (ib), on the other hand, the antecedent NP *Marka i Petra* ‘Marko and Peter’ has moved to a position from which it c-commands *jednog drugog* ‘each other’, but the sentence is still ungrammatical. This is expected, however, given Takahashi’s ban on adjunction to moved elements; i.e., *jedan* ‘each’ in (ib) cannot adjoin to the NP *Marka i Petra* in LF since the latter is a moved element.

In (105a) the adjective *lepi* ‘beautiful’ can modify only the head noun *pas* ‘dog’ not the possessor *čovekov* ‘man’s’. Similarly, as shown in (105b) it is impossible for the quantifier *svaki* to modify the possessor; it can only quantify over the noun *pas* ‘dog’. Finally, (105c) shows that a possessor cannot be further modified by another possessor, which is, of course, perfectly fine in English. Note that this fact can be taken to be an additional argument for the claim that the possessor in SC is an adjunct and that under the current analysis we have a unified account of (100) and (105c).

An alternative way of ruling (100) out is via agreement. As already mentioned in footnote 24, the SC reciprocal *jedan drugi* is more similar to English *one another* than *each other*, because first, it’s a literal translation of *one another*, and second, *jedan* in *jedan drugi*, like *one* in *one another*, and unlike *each* in *each other*, never overtly adjoins to the group-denoting antecedent.

(106) a. [Marko i Petar]_i poštuju jedan drugoga_i.

Marko and Peter respect each other

‘Marko and Peter respect each other.’

b. *[Marko i Petar]_i jedan poštuju drugoga_i.

The important fact that separates *jedan drugi* from *one another*, however, is that the former shows agreement in case and gender with the antecedent. This is most transparent in the cases where the reciprocal does not refer to the subject but to the object, as given in (101), and where the referents are either strictly masculine or strictly feminine. Consider

(101) again (repeated here as (107)) where *them* refers to two female individuals, and *jedan* and *drugi* correspondingly take feminine forms.

- (107) a. Preporučio ih_i je [jednu drugoj]_i.
 Recommended_{MASC} them_{ACC} is one_{FEM/ACC} another_{FEM/DAT}
 ‘He recommended them to each other.’
- b. Upoznao ih_i je [jednu sa drugom]_i.
 Introduced_{MASC} them_{ACC} is one_{FEM/ACC} with another_{FEM/INSTR}
 ‘He introduced them to each other.’

In (107a) *jednu* agrees with the plural accusative argument in case and gender (the group denoting antecedent), whereas *drugoj* shows dative case of the second internal argument of the verb *recommend*. Likewise, in (107b) *jednu* agrees with *them* in case and gender, whereas *drugom* acquires its instrumental case from the preposition *sa* ‘with’. For these reasons, *jednu* in (107b) always has to move out of the case assigning domain of the preposition, hence the unacceptability of (108a), and failing of *jednu* to agree with the group denoting antecedent in case and gender yields an ungrammatical sentence, as illustrated in (108b).

- (108) a. *Upoznao ih_i je sa [jednu/jednom drugom]_i.
 Introduced them_{ACC} is with one_{FEM/ACC}/one_{FEM/INSTR} another_{FEM/INSTR}
 ‘He introduced them to each other.’

b. *Preporučio ih_i je [jedna drugoj_i].

Recommended them_{ACC} is one_{FEM/NOM} another_{FEM/DAT}

‘He recommended them to each other.’

So, it might be argued that what agreement in SC reciprocals does is in a way similar to what the LF movement of *each*, as proposed by HLM, does in English, i.e., instead of movement in LF, the distributed NP and the reciprocal predicate in SC are identified through agreement (*jedan* agrees with the former and *drugi* with the latter).

This brings us back to our initial question here: Why can’t the reciprocal in SC have a possessive as its antecedent? Recall that possessives in SC are morphologically adjectives in that they show agreement in case, number, and gender with the noun they modify, exactly like adjectives. That is, possessives are modifiers that show agreement with the noun they modify (which I assume takes place through a low level operation of concord, which is different from Agree), but they never trigger agreement (i.e. Agree). In fact, as already observed in (105), they cannot be modified by any type of modifier. However, if agreement (i.e., Agree) is a necessary condition for the reciprocity in SC, as shown in (107)-(108), then the reciprocal in SC cannot be anteceded by a possessor, because the latter cannot trigger agreement (see also Boeckx 2003 for the claim that adjuncts cannot be involved in agreement).²⁶

²⁶ I assume here that agreement between *jedan* ‘each’ and its antecedent is established via the operation *Agree*, which is different from the concord agreement between the adjectival numeral *jedan* ‘one’ and the noun *delfina* ‘dolphin’ in (i) below (which is of the same type as adjectival concord agreement):

- (i) Video sam jednog delfina.
Seen am one_{SG/MASC/ACC} dolphin_{SG/MASC/ACC}
‘I saw one dolphin.’

Importantly, the two alternative analyses presented in this section are not mutually exclusive; in fact they are quite compatible with each other and should be regarded as two sides of the same coin. They both in different ways point to the same, adjunct status of SC possessives: these elements can never be modified or adjoined to and they can never trigger agreement.

Note finally that the approach developed here can explain the following very interesting contrast:

(109) **Njihova fotografija jedno drugog je zaista lepa.*

Their photo each other is really beautiful.

‘Their photo of each other is really beautiful.’

(110) *Nihovo poštovanje jedno drugog je zaista fascinantno.*

Their respecting each other is really fascinating

‘Their respect/respecting for each other is really fascinating.’

Given the discussion so far, (109) is ruled out because the possessor *njihov* ‘their’ is an adjunct, and *jednog* ‘each’ cannot adjoin to it (or agree with it). However, as discussed in detail in Chapter 3, the subject of (110) *poštovanje* ‘respecting’, unlike the subject of (109), is a de-verbal, or process nominal (e.g., Zlatić 1997a/b), derived from the verb *poštovati* ‘to respect’. I show in Chapter 3 that such nouns are in fact nominalized vPs; i.e., the possessor *njihov* ‘their’ in (110) is the external argument of vP, originating in SpecvP. For this reason *jedan* ‘each’ in (110) can adjoin to the possessor *njihov* ‘their’, which explains the acceptability of this construction.

2.6 Conclusion

Let me close, then, by summarizing again the main points of the discussion. The main goal of this chapter has been to introduce a new set of facts from SC and to point out the relevance of a number of binding contrasts between SC and English for the structure of NP in these languages. I have argued that SC binding properties and the fact that this language does not have articles are tightly related to each other. Following the work of Bošković and others, I have defended the position that DP is not a universal property of language and that the assumption that SC and English differ from each other in that only the latter projects DP allows us to fully explain the contrasts these two languages exhibit with respect to binding. In particular, I have shown that SC nominal modifiers c-command out of their NPs, which often yields Conditions B and C violations, whereas their counterparts in English never do.

In the second part of the chapter I have explored the consequences of this analysis for binding in SC and for the Binding Theory in general. In particular, on the basis of SC I have argued that in addition to Conditions B and C, which rule out derivations not conforming to them, we need a competitive principle, namely Safir's (2004) FTIP, which regulates the distribution of reflexives, pronouns and R-expressions. I have also proposed a predicate-based version of Condition B and argued that Condition C in SC should be defined as in Lasnik (1989).

Note, finally, that the analysis presented in this chapter does not predict that all languages without articles should behave like SC with respect to Condition B and C effects. On the proposed analysis, one of the crucial reasons why (111a) and (111b)

below are ungrammatical is because possessors in SC are *adjuncts*; they c-command out of the subject NPs in these examples and violate Conditions B and C, respectively.

(111) a. * Kusturicin_i najnoviji film ga_i je zaista razočarao.

Kusturica's latest film him is really disappointed

'Kusturica_i's latest film really disappointed him_i.'

b. * Njegov_i najnoviji film je zaista razočarao Kusturicu_i.

His latest film is really disappointed Kusturica

'His_i latest film really disappointed Kusturica_i.'

I have given a number of arguments in this and the previous chapter which independently show that SC possessives are indeed adjoined to the nouns they modify, e.g., they cannot be modified, do not trigger agreement, etc. However, there could be languages without articles in which possessors are not adjoined to their NPs, but occupy for example SpecNP positions (or even complement positions). We would not expect structures like (111a/b) in such languages then to be ungrammatical because the possessor would not c-command the object pronoun/R-expression.

The main points of this chapter are summarized below:

(112) a. SC lacks DP.

b. SC possessors c-command out of the NP they modify.

c. SC employs Conditions B and C, and a competitive principle which are defined as follows:

(i) Condition C: An R-expression is pronoun-free. (Lasnik 1989)

(ii) Condition B: A pronoun is free in its own predicate domain (i.e., phrase).

An element is free if it is not c-commanded by a coindexed NP.

(iii) A. Form to Interpretation Principle (FTIP): (Safir 2004)

If x c-commands y, and z is not the most dependent form available in position y with respect to x, then y cannot be directly dependent on x.

B. SIG-SELF >> pronoun-SELF >> SIG >> pronoun >> R-expression.

CHAPTER 3

PHASES, DP/NP, AND BINDING OF REFLEXIVES

3.1 Introduction

In the previous chapter I have argued on the basis of a variety of facts involving Condition B and C contexts that SC does not have DP.

In this chapter I focus on Condition A, in particular, binding of reflexives. I argue that binding possibilities of reflexives are also sensitive to the presence/absence of DP. More precisely, I propose that the conditions on the binding of reflexives apply cyclically on the basis of information contained at the level of the syntactic phase and that in addition to CPs and *v*Ps, DPs (but not NPs) also qualify as phases (see Adger 2003, Bošković 2005, 2008a, Svenonious 2004, among others). Since it is argued that DP is not universal, it is predicted that DP and DP-less languages should systematically differ with respect to the binding of reflexives. In particular, in contrast to languages that do project DP, the minimal binding domain for reflexives in DP-less languages should be *v*P. On the basis of data from SC and English, I show that this is indeed the case.

I also argue that this analysis goes a long way in explaining some puzzling cross-linguistic generalizations regarding reflexive possessive forms. Reuland (2007, 2011) observes that the availability of reflexive possessives in a language correlates with how

definiteness marking is encoded in the language. More precisely, the generalization is that reflexive possessives are possible only in languages which lack definiteness marking, or which encode definiteness postnominally, while they are systematically absent in languages which have prenominal (article-like) definiteness marking. I argue that this generalization falls out naturally under the analysis presented in this chapter.

The chapter also provides evidence against “usage-based” approaches to linguistic theory which claim that the cross-linguistic distribution of reflexive possessives constitutes a challenging argument against UG-based theories. Specifically, Haspelmath (2008) argues that generative approaches cannot explain why many languages lack reflexive possessive forms even though they have reflexive object pronouns, and why the opposite is never true. On the functionalist explanation that Haspelmath offers adnominal possessive anaphoric pronouns are much more likely to be coreferential with the subject than object pronouns. As a result, they do not need ‘special’ (reflexive) marking to the same extent as object pronouns, and for this reason a language like English, for instance, has a reflexive object pronoun (i.e., *himself*) but not a reflexive possessive form (i.e., **himself’s*). In this chapter I argue against this position, and propose that the availability of reflexive possessive forms is constrained by (i) the presence/absence of DP (i.e., presence/absence of definiteness marking), and (ii) the way DP is spelled-out (prenominal article vs. postnominal clitic/affix).

The chapter is laid out as follows. In section 3.2 I concentrate on reflexives and Condition A in SC. I first present a set of curious binding facts from SC originally introduced by Zlatić (1997a/b) and briefly summarize Zlatić’s account. Then I reinterpret the data, spelling-out my own analysis which is ultimately aimed to capture a contrast

between SC and English. In section 3.3, I turn to Reuland's (2007, 2011) generalization and discuss how the analysis outlined in section 3.2 can account for it. I show that this analysis has a wider range of empirical coverage than analyses based on the UDPH, pointing out a number of potentially serious problems for such analyses. In this section I also devote special attention to the languages which mark definiteness postnominally and present two alternative accounts of the availability of possessive reflexives in these languages. In section 3.4, I discuss some possible extensions of the analysis offered here focusing on languages with subject anaphors. In the Appendix I present further cross-linguistic evidence in support of Reuland's generalization.

3.2 Reflexive Pronouns and Condition A in SC

3.2.1 Zlatić (1997a/b)

SC uses two kinds of reflexive pronouns: *sebe* and *svoj*. Both *sebe* and *svoj* are generalized to all persons. The possessive form *svoj* takes on various forms since it always agrees with the noun it modifies in gender, number and case. Also, in contrast to *sebe*, *svoj* has a nominative form. The two reflexive pronouns are similar to Norwegian *seg selv* and Japanese *zibun-zisin* in that they are strictly subject-oriented and local. As illustrated in (1), *sebe* and *svoj* can be anteceded only by a local subject. Pronouns, on the other hand, are not available in the same contexts, for the reasons discussed in the previous chapter (in short, due to a competition principle and Condition B, pronouns are excluded where reflexives are available):

(1) a. Jovan_i je pričao Marku_j o njemu^{*?i/j} /sebi_{i/*j} /svom_{i/*j} bratu

John is talked Marko about him self self's brother

'John_i told Marko_j about him/himself/his brother.'

b. Jovan_i je rekao da je Marko_j video njega_{i/*j} /sebe_{*i/j}

John is told that is Marko seen him self

'John said that Marko saw himself.'

However, Zlatić (1997a/b) observes that the SC reflexive pronouns display a surprising behavior when it comes to binding from DP/NP possessors. Consider the following examples:

(2) a. Jovan_i je pročitao [_{NP} Marijin_j članak o sebi_{i/*j}]. (sebi_j ≠ Marija_j)

John is read Mary's article about self (sebi_i = Jovan_i)

'John read Mary's article about himself/herself.'

b. Jovan_i je pročitao [_{NP} Marijin_j članak o svojoj_{i/*j} deci] (svojoj_j ≠ Marija_j)

John is read Mary's article about self's children (svojoj_i = Jovan_i)

'John read Mary's article about his/her children.'

c. Jovan_i je pročitao [_{NP} Marijin_j članak o njemu^{*?i/} njoj_{?j}]. (pronoun_j ? = Marija_j)

John is read Mary's article about him/her (pronoun_i ≠ Jovan_i)

'John read Mary's article about him/her.'

(3) a. Jovan_i je primetio [_{NP} Marijinu_j lošu brigu o sebi_{*i/j}]. (sebi_j = Marija_j)

John is noticed Mary's bad care about self (sebi_i ≠ Jovan_i)

'John noticed Mary's poor care for herself/himself.'

- b. $Jovan_i$ je primetio [_{NP} $Marijinu_j$ lošu brigu o $svojoj_{*i/j}$ deci]. ($svojoj_j = Marija_j$)
 John is noticed Mary's bad care about self's children ($svojoj_j \neq Jovan_i$)
 'John noticed Mary's poor care for her/his children.'
- c. $Jovan_i$ je primetio [_{NP} $Marijinu_j$ lošu brigu o $njemu_i/njoj_{*j}$]. ($pronoun_j \neq Marija_j$)
 John is noticed Mary's bad care about him/her ($pronoun_i = Jovan_i$)
 'John noticed Mary's poor care for her/him.'

The observation is that binding of the reflexive by the clausal subject in (2) is possible and that local binding by the possessor of the object NP is impossible, or extremely marginally possible. The same pattern holds for possessive forms as well. This becomes especially obvious when the NP in question is in the clausal subject position:^{1,2}

- (4) * $[_{NP} Marijin_i \text{ \u010d}lanak \text{ o } sebi_i/svojoj_i \text{ deci}] \text{ je veoma popularan.}$
 Mary's article about self/self's children is very popular
 'Mary's article about herself/her children is very popular.'

In contrast to (2), the reflexives in (3) exhibit just the opposite behavior, i.e., they are necessarily anteceded by the NP possessor and cannot be bound by the sentential subject. Zlati\u0107 argues convincingly that this is because there is a deep semantic-syntactic difference between the nominals in (2) and (3), i.e., *\u010dlanak* 'article' and *briga* 'care'. The

¹ Zlati\u0107 reports in her thesis (Zlati\u0107 1997a) that only three of her 11 informants marginally accept binding of the reflexive by the NP possessor in a sentence like (2a) (Zlati\u0107 1997a: 247). All of her informants, however, find a sentence like (4) completely ungrammatical. None of the native speakers that I have consulted accepted binding of the reflexive by the NP possessors, regardless of whether the NP in question is in the subject or object position.

² Pronouns, on the other hand, cannot be bound by the clausal subject as shown in (2c). I will leave the issue of pronouns in these constructions aside for the moment and will come back to them in section 3.2.3.

nominals of the first type are what Zlatić labels “non-process” or “result” nominals, while the nominals of the second type are “process” nominals. Following the work of Grimshaw (1990), Valois (1991), Zucchi (1993), among others, Zlatić shows that non-process nominals have pure nominal characteristics while process nominals are a mixture of verbal and nominal features. In particular, process nominals are derived from imperfective verbs, obligatorily take the same arguments as their corresponding verbs, and can take aspectual modifiers. Result nominals, on the other hand, do not necessarily follow the argument structure of their corresponding verbs, and do not allow aspectual modifiers.

For instance, an imperfective verb *opisivati* ‘to describe’ roughly corresponds to two types of nouns: *opis* ‘description’ and *opisivanje* ‘describing’. The former is a result nominal and the latter is a process nominal. In the most regular cases (as argued by traditional grammars Mrazović and Vukadinović 1991, Stanojčić and Popović 1992), a process nominal is morphologically derived by adding *-je* to the passive participle of the imperfective verb:

(5) a. Milan je retko opis-**iva-o** političku situaciju.

Milan is rarely describe_{IMP/MASC-SG} political situation

‘Milan has rarely described the political situation.’

b. Politička situacija je retko bila opis-**iva-n-a**.

Political situation_{FEM-SG} is rarely was described_{IMP/PASS.PART/FEM-SG}

‘The political situation has rarely been described.’

c. Opis-**iva-n-je** političke situacije.

Describe_{IMP/PASS.PART/NOMINALIZER} political situation

‘Describing of the political situation.’

Thus, process nominals are also called deverbals nouns (*glagolske imenice*).³ Also, as illustrated in the examples below, only *opisivanje* can be modified by *retko* ‘rarely’, an aspectual modifier, and only *opisivanje* obligatorily takes the object complement:

(6) Milanovo retko opisivanje *(političke situacije).

Milan rarely description political situation

(7) Milanov (*redak) opis (političke situacije).

Milan rarely description political situation

‘Milan’s rare description of the political situation.’

At the same time, the possessor of the result nominal can have various θ -roles. Thus, in *Milanov opis* ‘Milan’ can be either the describer or the one being described, or if *opis* refers to a document, a person who possesses the document. This is not true for *opisivanje*, where the possessor has to be interpreted as the agent. Ultimately, the two minimally differ with respect to binding possibilities in that only the possessor of *opisivanje* binds the reflexive:

³ There are also some irregular cases like *briga* ‘care’ from (3), which cannot be derived in a regular way: *brinuti* ‘to care’; **brinjenje*. Reasons for this irregularity are still not very well understood (see Zlatić 1997a, Chapter 4, for a discussion).

(8) [_{NP} Marijino_i opisivanje svog_i sela] je bilo veoma zanimljivo.

Mary's description self's village is was very interesting

'Mary's description(describing) of her village was very interesting.'

(9) * [_{NP} Marijin_i opis svog_i sela] je bio veoma zanimljiv.

Mary's description self's village is was very interesting

'Mary's description of her village was very interesting.'

To account for these facts Zlatić (1997a/b) proposes the following analysis. First, her claim is that examples involving non-process nominals like (2a), in which the reflexive is bound outside of the minimal nominal phrase which contains it even in the presence of an intervening 'specified' subject, are not cases of long distance anaphora, but instances of local binding. Specifically, Zlatić argues that the reason why possessors of non-process nominals are transparent for anaphor binding is because they are not arguments. Binding relations are on Zlatić's account defined on argument structure and possessors of non-process nominals are not arguments. Rather, they are adjuncts with no unique thematic role specification and which have no fixed relation to the head noun (e.g., the "Possessor" or R-relation of Higginbotham 1985). Possessors of process nominals, on the other hand, have a specific thematic role (a role 'thematically' selected by the head noun, as in Higginbotham 1983), and hence an argument status. Zlatić proposes the following binding conditions for SC reflexives and pronouns (Zlatić 1997b: 478-479):

(10) *Condition A*: An anaphor must be SUBJECT-bound in its binding category.

Condition B: A pronoun must be SUBJECT-free in its binding category.

where SUBJECT is defined as:

- The SUBJECT is a θ -argument of a predicate realized in a Spec position.

where a Binding Category is defined as:

- A binding category for an element A is minimal X^{\max} category that contains A and a SUBJECT.

The term SUBJECT-bound means both coindexed and c-commanded by a SUBJECT, and SUBJECT-free means not SUBJECT-bound.

Although Zlatić's analysis effectively accounts for SC facts, it does not extend successfully to other languages. Take English for instance:

(11) a. John_i saw a picture of himself_i.

b. John_i saw Bill_j's picture of himself_{*i/j}.

It is standardly assumed that *himself* must be bound by John in (11a), and by Bill in (11b).⁴ And yet the contrast between the two languages cannot simply be attributed to θ -role assignment, since Bill in *Bill's picture* can be interpreted in any possible way (agent, theme, possessor...) (e.g., Chomsky 1970, Marantz 1997, etc.), just like the possessor of a non-process nominal in SC. Danish patterns with English in the relevant respect:

⁴ Asudeh and Keller (2001) report that for some speakers, binding by *John* in configurations such as (11b) is possible. This is still very much different from SC in which *sebe* in a structure corresponding to (11b) must be bound by *John*. See also Hicks (2009) for the discussion of binding in so-called "picture DPs".

(12) Peter_i så [_{DP} Johns_j fem billeder af sig selv_{*i/j}/sig_i/*_j]. (Vikner 1985: 38)

‘Peter saw John’s five pictures of himself.’

Here, the Danish complex reflexive *sig selv* patterns with English *himself*, even though it behaves like SC *sebe* in every other respect, i.e., it is local and subject-oriented. The monomorphemic pronoun *sig*, on the other hand, is a long distance anaphor (as discussed by a variety of authors), and is quite different from *sebe*.

In the next subsection, I reinterpret Zlatić’s data and present my own analysis. The main goal is to account for the contrast between SC, on the one hand, and languages like English and Danish, on the other. In a nutshell, I propose that phases, i.e., CPs, vPs, and DPs are relevant domains for binding of reflexives, and that SC lacks DP. More specifically, I will argue that ‘non-process’ nominals like *slika* ‘picture’ are bare NPs, whereas ‘process’ nominals like *opisivanje* ‘describing’ are nominalized vPs.

3.2.2 Binding and Phases

One of the core features of the Derivation by Phase framework of Chomsky (2000, 2001) is the proposal that the derivation of a sentence, all the way from lexical arrays to the interfaces, is composed of chunks, and that the syntax sends material to the interfaces in a series of cycles, rather than all at once, as was assumed in Chomsky (1995). The relevant subsections of the derivation are called ‘phases’, and it is assumed that the derivation can only access one phase at a time (with certain qualifications required), limiting the computational load in deriving a sentence.

There have been many attempts to reanalyze the Binding Theory in a way consistent with the aims and methodology of the Minimalist Program and to reduce it to narrow-syntactic processes. Some of the analyses have been based either on overt movement (Hornstein 2001, Kayne 2002, Zwart 2002), or on covert movement and feature checking (Reuland 2001), and some of them have employed (some type of) Agree (Heinats 2006, Reuland 2005, etc.). Finally, a number of authors have also suggested that local binding domains should be reduced to phases (Canac-Marquis 2005, Hicks 2006, 2009, Lee-Schoenfeld 2004, 2008, Quicoli 2008, Wurmbrand 2008 etc).

For instance, Lee-Schoenfeld (2008) proposes a phase-based approach to local binding, examining binding possibilities in German with particular attention to Accusativus cum Infinitivo constructions. Lee-Schoenfeld concludes that reflexives must be bound in their minimal phase, while pronouns must be free in their minimal phase. Hicks (2009), on the other hand, argues that in order to reduce binding domains to phases a distinction has to be made between LF- and PF-phases. In particular, the assumption is that LF and PF may independently and non-simultaneously read off semantic-syntactic and morpho-syntactic features respectively, which gives rise to two different types of phases – LF and PF phases. On this approach anaphors must be bound in their minimal LF-phase, while pronouns must be free in their minimal PF-phase. Hicks proposes that reflexives as variables are encoded syntactically as distinct semiosyntactic features [Var]. In a structure like (13) below, *himself* requires a c-commanding DP to enter the derivation bearing a matching feature (i.e., the variable feature [Var]) before completion to its LF-phase. The unvalued semantico-syntactic feature must be valued by a c-commanding element bearing a matching feature which enters the derivation before the

LF-phase containing it (namely, vP) is read off by LF. When the DP *John* enters the derivation in the c-commanding position $SpecvP$, its valued [Var] feature will value the anaphor's [Var:___] before the completion of the vP phase (Hicks, 2009: 128):

(13) [_{TP} John [_{Var:x}] [_{vP} John [_{Var:x}] likes [_{VP} himself [_{Var:_}]]]]

Heinat (2006) assumes that binding relations can be determined by Agree between unvalued ϕ -features on anaphors and matching valued features on their antecedents.⁵ Thus, the theoretical mechanisms behind different theories may vary significantly with respect to what their central focus is.

I will assume that the SC reflexive *sebe/svoj* must be bound by the external argument of the minimal phase that contains it. This accounts for the so-called “subject-orientation” of SC reflexives. That is, we may hypothesize (along the lines of Richards 1996) that anaphors which are underspecified for ϕ -features are uniquely associated with certain functional heads. Following Wurmbrand (2011) I will assume that these functional heads are in fact phase heads. Consequently, *sebe/svoj* must be anteceded by the external argument introduced by the phase head it is associated with. When that phase head is v , *sebe/svoj* can be bound only by the argument in $SpecvP$, which subsequently moves to $SpecTP$, creating the “subject-orientation” effect. I propose furthermore that reflexives which are not underspecified for ϕ -features, like English *himself*, need not be associated strictly with the relevant phase head, and hence the external argument that it introduces.

⁵ Richards (1996) argues that anaphors that are underspecified for ϕ -features are subject-oriented - this is claimed to follow from the unique association of the subject with certain functional heads.

With these assumptions we can account for the core SC binding facts given in (1), which I repeat below as (14). That is, *sebe/svoj* can be anteceded by the subject, but not the object, as in (14a), and that subject has to be local, as in (14b):

(14) a. Jovan_i je pričao Marku_j o njemu_{?i/j} /sebi_{i/*j} /svom bratu_{i/*j}

John is talked Marko about him self self's brother

'John told Marko about him/himself/his brother.'

b. Jovan_i je rekao da je Marko_j video sebe_{*i/j}.

John is told that is Marko seen self

'John said that Marko saw himself.'

Approaches to subject-orientation which assume LF movement of reflexives to Infl/T in LF face certain problems with respect to SC facts. For instance, as argued in Zlatić (1997a), Pica's (1987) theory of LF movement of reflexives, on which monomorphemic reflexives move to Infl in LF, a position from which reflexives can be c-commanded by a subject, faces the problem of reflexives embedded in adjuncts.

(15) Marija_i je dala knjigu Jovanu_j zbog svoje_{i/*j} majke.

Marija is gave book John because self mother

'Marija gave the book to Jovan because of her mother.'

(15) involves a movement violation on Pica's account. If the minimal binding domain for binding of reflexives is reduced to phases/spell out domains as proposed here, no problem

arises in (15) since the reflexive is bound in its phase (namely *vP*) (see also Zlatić 1997a for similar discussion).⁶

Going back to the more interesting data regarding ‘process’ and ‘non-process’ nominals I first argue that the former are in fact nominalized *vPs*, and thus constitute binding domains. Recall that these nouns are in the most general case derived from past participles of imperfective verbs. They obligatorily take the same arguments as their corresponding verbs, and can take aspectual modifiers.

(16) a. Milan je retko opis-**iva-o** političku situaciju.

Milan is rarely describe_{IMP/MASC-SG} political situation

‘Milan has rarely described the political situation.’

b. Politička situacija je retko bila opis-**iva-n-a**.

Political situation_{FEM-SG} is rarely was described_{IMP/PASS.PART/FEM-SG}

‘The political situation has rarely been described.’

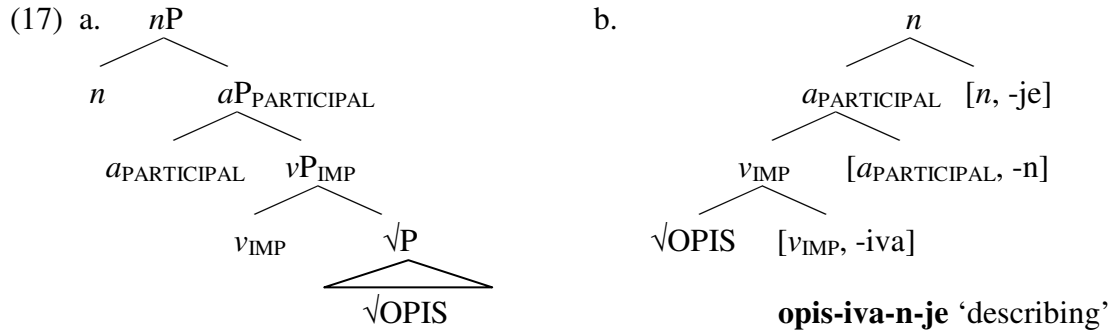
c. Opis-**iva-n-je** političke situacije.

Describe_{IMP/PASS.PART/NOMINALIZER} political situation

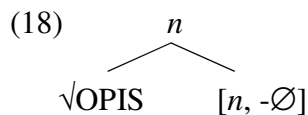
‘Describing of the political situation.’

On the assumption that words are formed by the syntactic process of head movement (e.g., Embick and Halle 2005, Embick and Noyer 2006, etc.), I propose that the morpho-syntactic structure of a ‘process’ noun like *opisivanje* is as in (17):

⁶ In this section I will for ease of exposition simply assume that phases are binding domains. In the next section I will argue that what really matters for binding is spell out domains. This refinement of the theory, however, will not affect the argument that I am making in this section in any way.



The so-called ‘non-process’ nominal like *opis* could be taken to have the following simple structure:



This is a thumbnail sketch and more detailed work is required, since the morpho-syntactic structure of SC (and generally Slavic) verbs and de-verbal nouns is a very complex matter, which is beyond the scope of this work. However, I believe that given the facts above it should not be controversial to assume that ‘process’ (deverbal) nouns indeed involve vPs and that the ‘possessor’ of a noun like *opisivanje* originates in $SpecvP$. Therefore, the reflexive *sebe/svoj* in the object position of such nouns will always be bound by their ‘possessors’.⁷

⁷ To avoid any confusion it is worth mentioning that for the purposes of the present discussion nP and NP from the previous chapter are equivalent in all respects relevant for this analysis. In particular, SC possessors would be adjoined to nPs in structures like (17) and (18). The difference between (17) and (18), however, is that the possessor in (17) is base generated in $SpecvP$ and later adjoins to nP . In Chapter 5 I discuss the morpho-syntactic structure of SC nouns and adjectives in much more detail. I argue that there is actually another projection above nP in SC, which hosts agreement features, namely $InfIP$, and that possessors are in fact adjoined to $InfIPs$.

What is left to be explained then is why SC reflexives cannot be bound by the possessor of a ‘non-process’ nominal and why the opposite is true for a language like English. In order to do that I will assume, following Adger (2003), Bošković (2005, 2008a), Svenonius (2004), and others, that DP is a phase, and therefore constitutes a binding domain. This accounts for why local reflexives in languages like English and Danish are bound within their DPs:

- (19) a. John_i saw Bill_j’s picture of himself_{*i/j}. English
 b. Peter_i så [DP John_s_j fem billeder af sig selv_{*i/j}]. Danish
 ‘Peter saw John’s five pictures of himself.’

DP, on the other hand, is not projected in SC, which directly explains the contrast between English and SC:

- (20) a. [DP John_i’s picture of himself_i] disappeared. English
 b.*[NP Marijina_i slika sebe_i] je nestala. SC
 Mary’s picture self is disappeared
 ‘Mary’s picture of herself disappeared.’

In (20a) *himself* is bound in the minimal phase which contains it, namely the subject DP. In (20b), however, *sebe* cannot be bound by the possessor *Marijina* ‘Mary’s’ because the subject is an NP, not a DP, and does not constitute a binding domain. Since no other element can bind the reflexive, the sentence is ungrammatical. When the subject NP from

(20b) is in the object position, as in (21) below, the reflexive gets bound by the argument in SpecvP, e.g., the clausal subject:

(21) [_{TP} Jovan_i [_{vP} Jovan_i gleda [_{VP} [_{NP} Marijinu_j sliku sebe_{i/*j}]]]].

John John looks Mary's picture self

‘John is looking at Mary’s picture of him.’

I also suggest that the strict subject orientation of *sebe* is the reason for why it cannot be bound by *Marijinu* in (21), even though the latter is inside the vP phase. *Marijinu* in (21) is adjoined to NP and is not an external argument of any phase head. To reiterate, I assume that simplex reflexives like *sebe*, which are underspecified for ϕ -features, are uniquely associated with phase heads, and the external argument they introduce. Thus, although *Marijinu* resides within the vP phase, it is not the external argument of *v* (and more generally Spec of a phase head), and therefore it cannot bind *sebe*.

Let me then quickly summarize the main points of this section. I have argued that phases constitute domains for binding of reflexives and I have assumed that DPs are phases in addition to CPs and vPs. However, I have argued that the crucial factors underlying the contrast between SC and English is the lack of DP in SC and the strict subject orientation of SC reflexives. Specifically, I have suggested that it is not the lack of thematic specification that prevents the reflexive in SC from being bound in a ‘non-process’ nominal, but the overall absence of DP in this language.

3.2.3 *Back to Condition B in SC*

Before moving on to the next section, a few words on pronouns and Condition B in SC are in order. Unlike Lee-Schoenfeld (2008) and Hicks (2009) who propose that Condition B should also be defined in terms of phase-hood, I have argued in the previous chapter that as far as SC is concerned, Condition B should be stated as in coargument based binding theories (e.g., Reinhart and Reuland 1993, Pollard and Sag 1992, 1994). I repeat my definition of Condition B below:

(22) Condition B: a pronoun is free in its own predicate domain (i.e., phrase).

An element is free if it is not c-commanded by a coindexed NP.

The seeming complementarity of reflexives and pronouns in SC does not arise because binding domains for pronouns and reflexives are the same, but rather because phases are in general also predicates. For instance, ν P is both a phase and a predicate, and consequently defines a domain in which anaphors are bound, and pronouns free, respectively. Thus, I argue that the complementary distribution of reflexives and pronouns in this case is due to general syntactic and semantics properties of ν P. This symmetry, however, breaks down in the case of binding within SC nominals. Consider the following examples:

(23) a. *?_{[NP Marijina_i slika nje_i] je nestala.}

Mary's picture her is disappeared

'Mary's picture of her disappeared.'

b. _{[NP Marijina_i slika njene_i dece] je nestala.}

Mary's picture her children is disappeared

'Mary's picture of her disappeared.'

(23a) is not acceptable even though the reflexive in the place of the pronoun is not available either, which is expected given the assumptions about the structure of SC NP from the previous chapter.⁸ Namely, the subject NP in (23a) is a predicate, and within that predicate the pronoun *nje* 'her' is c-commanded by *Marijina* 'Mary's', which gives rise to a Condition B violation. Note that there is no competition with *sebe* 'self', because the reflexive in this construction is also unavailable, i.e., since the subject is an NP (not a DP), and hence not a phase, there is no binding domain in which *sebe* can be bound.

When the pronoun is embedded in a separate NP (i.e., predicate), however, coreference is perfect (e.g., (23b)). Embedding a reflexive in a separate NP, on the other hand, does not improve the grammaticality status of constructions involving reflexives at all:

(24) *_{[NP Marijina_i slika svoje_i dece] je nestala.}

Mary's picture self's children is disappeared

'Mary's picture of her children disappeared.'

⁸ Zlatić (1997a/b) also notices this and marks sentences like (23a) as degraded.

The pronoun in (23b) does not violate Condition B in (22) since it is free in its own predicate and does not compete with the reflexive, which is excluded for independent reasons. Thus, the approach developed in this and the previous chapter exactly predicts the contrast in (23).

These facts reinforce the conclusions from the Chapter 2. Namely, in addition to Condition B, which rules out derivations not conforming to them, SC also employs a competitive principle, which regulates the distribution of reflexives, pronouns and R-expressions. The data above, however, strongly suggest that Condition B is a principle of its own in SC and that it cannot be reduced to a competition between reflexives and pronouns. For instance, (23a) is ungrammatical even though there is no competition between the pronoun and the reflexive *sebe*, which is generally excluded from such constructions.

Finally, it is very difficult to see how the UDPH approach would account for these facts in a non-circular way. Recall that on this hypothesis the difference between languages with overt articles such as English, and languages that lack articles such as SC is simply phonological. That is, even languages like SC introduce an article (i.e., a D head) at the syntactic level, but which in contrast to the article in English is not pronounced. Such approaches therefore seem to predict that there should again be no fundamental difference between SC and English with respect to binding, contrary to fact.

In the next section I turn to some cross-linguistic ramifications of the present analysis. In particular, I examine the distribution of reflexive possessive forms in a variety of languages and its relation to different types of definiteness marking.

3.3 Reflexive Possessives and Definiteness

Haspelmath (2008) examines the cross-linguistic distribution of reflexive possessives and formulates the following universal (Haspelmath 2008: 50):

- (25) **Universal 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:

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

In English, 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.

The second attested type is illustrated by Lezgian:

- (27) a. Alfija-di (wič-i) wič q'ena. Lezgian (Haspelmath 2008:51)
Alfija_{ERG} self_{ERG} self killed
'Alfija killed herself.'

b. Alfija-di wič-in kic' q'ena.

Alfija_{ERG} self_{GEN} dog killed

'Alfija_i killed her_i dog.'

c. Alfija-di ada-n kic' q'ena.

Alfija_{ERG} she_{GEN} dog killed

'Alfija₁ killed her₂ dog.'

In Lezgian, a special reflexive pronoun *wič* is used in the case of subject-coreference (e.g., (27a-b)), different from the regular non-reflexive pronoun *am/ada*. Thus the possessive pronoun in (27c) cannot be coreferential with the subject *Alfija*. Note that this pattern also holds for a variety of Indo-European languages (e.g., Slavic languages), to which I come back below.

In the third attested type the regular, non-anaphoric pronoun is used in both object positions and in adnominal possessive positions (e.g., Loniu (see Haspelmath 2008: 51)). I will not discuss this group of languages here since they are somewhat orthogonal to the goals of this section. I need to note, however, that I assume that the approach of Safir (2004) discussed in the previous chapter, is directly relevant for these languages, since one of its 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 this approach, 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. Finally, there seem to be no languages 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 will focus here, challenge UG-based approaches and proposes a functionalist, usage-based explanation. Oversimplifying somewhat, Haspelmath 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. That is, they exhibit “strategic streamlining” (i.e. possessive pronouns pattern after object pronouns), whereas English-type languages show “functional streamlining”. Put differently, in these languages “system pressure” beats economic motivation.

In this section I will propose a UG-based approach to these facts. My analysis will crucially rely on Reuland’s (2007, 2011) observation that the availability of reflexive possessive forms in a language correlates with how definiteness marking is encoded in that language; in particular, reflexive possessives are possible only in languages which lack definiteness marking, or which encode definiteness postnominally, while they are systematically absent in languages which have prenominal (article-like) definiteness marking. The more general claim I will make is that Haspelmath’s challenge of UG-based approaches to reflexive possessives is not complete and therefore does not carry weight, since his cross-linguistic survey overlooks an important parameter in this respect, namely the way languages encode definiteness. Before introducing my own analysis, however, I will first briefly summarize a particularly interesting UG-based analysis of the

asymmetry between the first two language types developed by Marelj (in press). On this account, the availability of reflexive possessives in a language depends on whether that language allows “Left-Branch Extraction” or not. I will point out some problems for Marelj’s account and then present my own analysis.

3.3.1 *Reflexive Possessives and Left Branch Extraction*

Marelj (in press) observes that a number of languages that have possessive reflexive forms allow “Left-Branch Extraction” (LBE), whereas in languages in which pronominal possessives are restricted to non-reflexive forms LBE is disallowed. For instance, as already observed, SC is a language with possessive reflexive forms ((28b)), and at the same time it allows LBE ((28a)) (see for instance Bošković 2005):

(28) a. Čijeg_i si vidio [t_i oca]? SC

Whose are seen father

‘Whose father did you see?’

b. Svaki dečak_i je video svog_i oca.

Every boy is seen self’s father

‘Every boy_i saw his_i father.’

English, on the other hand, is well-known to disallow LBE, as shown in (29a), and in contrast to SC, it lacks reflexive possessive forms:

- (29) a. *Whose_i did you see [t_i father]?
- b. Every boy_i saw his_i father.

On the basis of this contrast, Marelj argues in favor of the hypothesis that movement is involved in anaphora licensing (as in the theories of Lidz and Idsardi 1998; Hornstein 2001; Zwart 2002; Grohmann 2003). 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 *svoj* in (28b) is also a residue of movement. That is, in (28b) *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 SC is an LBE language. The reason why English (29b) is acceptable on the bound reading lies in the fact that (29b) cannot be licitly formed by movement. LBE being 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.

Thus, if the contrast between SC and English boils down to the fact that SC, unlike English, is an LBE language, then non-LBE languages are predicted to pattern with English with respect to the pronoun-insertion strategy, whereas the LBE languages should pattern with SC. Marelj shows that this is borne out for a variety of languages. For instance, Polish and Russian are LBE languages and they have reflexive possessive forms, whereas Dutch and German, which disallow LBE, lack reflexive possessive forms (Marelj in press: 45-46):

- (30) a. Każdy kocha **swoją** matkę. Polish
 Everyone loves self-Poss mother
 ‘Everybody_i loves **his**_{i/*j} mother.’
- b. Vsjakij ljubit **svoju** mat’. Russian
 Everyone loves self-Poss mother
 ‘Everybody_i loves **his**_{i/*j} mother.’
- (31) a. Iedereen_i houdt van **zijn**_{i/j} moeder. Dutch
 everyone loves his mother
 ‘Everybody loves his_{i/j} mother.’
- b. Jeder_i liebt **seine**_{i/j} Mutter. German
 Everyone loves his mother
 ‘Everyone loves his_{i/j} mother.’

Furthermore, Marelj argues that this analysis enables us to explain an interesting split within the Romance family. Namely, whereas Latin behaves completely like SC (e.g., (32)), modern Romance languages, exemplified here with Italian and Spanish, pattern with English (e.g., (33)) (Marelj in press, 46):

- (32) a. Ioannes sororem **suam/eius**_{j/*i} vidit. Latin
 Ioanнесi sister **self**_i’s/**his**_{j/*i} saw
 ‘Ioannes saw his sister.’

b. Cuiam_i amat Cicero [t_i puellam] ? Latin (Uriagareka 1988)

Whose_{ACC} loves Cicero_{NOM} girl_{ACC}

‘Whose child does Cicero love?’

(33) a. Ioannes vio **a su**_{i/j} hermana. Spanish (no LBE)

Ioannes saw his sister

‘Ioannes saw his sister.’

b. Giovanni ama **sua**_{i/j} sorella. Italian (no LBE)

Giovanni loves his sister

‘Giovanni loves his sister.’

Scandinavian languages, however, clearly challenge Marelj’s analysis, since they all have a 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 SC or Latin:

(34) John_i læste **sin**_i/***hans**_i artikel. Danish (Vikner 1985: 23)

John read self’s/his article

‘John read his article.’

(35) Jon_i fortalte om **sin**_i/***hans**_i nabo. Norwegian (Safir 2004: 72)

John told about self’s/his neighbor

(36) Egil_i vantar bókina **sína**_i/***hans**_i. Icelandic (Thráinsson 2007: 463)

Egil needs book self’s his

‘Egil needs his book.’

(37) John_i angrep **sina_i/*hans_i** vänner. Swedish (Kiparsky 2002: 16)

John attacked self's his friends

'John attacked his friends.'

(38) Jógvan_i tók bók **sína_i/*hansara_i**. Faroese (Thráinsson et al.: 2004: 327)

John took book self's/his

'John took his book.'

Furthermore, there are various contexts in SC which license reflexive possessives, but in which movement is illicit. This fact is puzzling if anaphora is indeed a reflex of movement:

(39) a. Svaki političar_i je dao ostavku zbog **svoje_i/njegove_{*i}** supruge.

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

'Every politician resigned because of his wife.'

b. *Čije je Marko dao ostavku zbog [t_i supruge]?

Whose is Marko gave resignation because wife

'Because of whose wife did Marko resign?'

As shown in (39), SC reflexive possessives are available within adjuncts (e.g., (39a)), but LBE out of adjuncts is ungrammatical (e.g., (39b)).

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 do not adopt it given the problems that it faces. Instead, I propose my own analysis, which crucially relies on the assumption that phases are binding domains and that DP is a phase. As noted in Marelj,

another property that is shared by the above-mentioned LBE languages is that, unlike non-LBE languages (i.e., English, Dutch, German, Spanish, Italian), they lack definite articles. This was noticed and discussed by Bošković (2005, 2008a), Corver (1992), Uriagereka (1988) (see also Chapter 1), and stated as a generalization, which I repeat below:

(40) *Left Branch Extraction* - Only languages without articles may allow ‘Left Branch Extraction’.

Thus, languages like Polish, Russian, SC and Latin in addition to having reflexive possessive forms and allowing LBE also lack articles. I will argue in section 3.3.3 that the availability of reflexive possessive forms in these languages is in fact related to LBE only indirectly, in that both phenomena are a consequence of the absence of articles, and in that sense quite independent of each other. I will argue, on the other hand, that the reason why Scandinavian languages have reflexive possessives but at the same time disallow LBE is the fact that they mark definiteness postnominally (i.e., via definite suffixes). But before I lay out my arguments I will briefly summarize Reuland’s (2007, 2011) important observations and analysis.

3.3.2 *Reflexive Possessives and Definiteness Marking*

What seems to be the right generalization in this respect is the one given by Reuland (2007, 2011), who observes that the availability of reflexive possessives in a language

correlates with the way the language encodes definiteness. In particular, Reuland notices that languages which do not mark definiteness or which mark definiteness postnominally via definite clitics/affixes allow reflexive possessives, while language which encode definiteness prenominally (i.e., via non-affixal articles) lack reflexive possessives.

(41) I Languages without Reflexive Possessives:

English	(prenominal definite article)
Dutch	(prenominal definite article)
German	(prenominal definite article)
Spanish	(prenominal definite article)
Italian	(prenominal definite article)
Modern Greek	(prenominal definite article)

II Languages with Reflexive Possessives:

A	Icelandic	(postnominal definite clitic/affix)
	Faroese	(postnominal definite clitic/affix)
	Swedish	(postnominal definite clitic/affix)
	Danish	(postnominal definite clitic/affix)
	Norwegian	(postnominal definite clitic/affix)
	Bulgarian	(postnominal definite clitic/affix)
	Macedonian	(postnominal definite clitic/affix)
	Romanian	(postnominal definite clitic/affix)
B	Polish	(no definiteness marking)
	Russian	(no definiteness marking)
	Serbo-Croat	(no definiteness marking)
	Latin	(no definiteness marking)

In the Appendix to this chapter I summarize the results of a small survey that I have conducted in order to check empirical limitations of Reuland's generalizations. As discussed there, I have not found a single direct counterexample to Reuland's observations. I argue, however, that the generalization regarding languages which allow

reflexive possessives is a one way generalization, and should be formulated in the following way:

- If a language has reflexive possessives it either does not mark definiteness at all, or it marks definiteness postnominally.

The motivation for this particular way of formulating this generalization is found in the fact that there are languages in which definiteness marking is completely absent or encoded postnominally, but which still do not have reflexive possessive forms. The theory that I will present in the next section is completely compatible with this state of affairs, and does not necessarily predict that the language types in question must have reflexive possessives, since the morpho-syntax of possessives can clearly be constrained by factors other than definiteness.

On the other hand, languages which encode definiteness prenominally always lack reflexive possessives.

To the extent that these generalizations stand up further scrutiny, they provide support to UG-based approaches to binding (as I will argue in the following sections), 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 functionalist, usage-based analysis could account for it. Haspelmath's analysis in its current form does not capture it.

below which should show that there is a position of the possessive expression between the D and Num positions (Reuland 2011: 167):

(43) Gianni ama le sue due machine.

‘Gianni loves his two cars.’

Reuland proposes that the obligatory D-position marks an impenetrable domain (and leaves it open whether this is because it defines a phase domain or whether it causes a minimality intervention), and for this reason an element in the position of GenS cannot be attracted by an element outside of the domain of D. Thus, languages like Dutch, German or Italian do not have a possessive anaphor, since it cannot be attracted from the GenS position, and hence form a chain (assuming that movement underlies the chain formation). Reuland is not explicit about Scandinavian languages (and Bulgarian), but as I understand it, these languages allow possessive anaphors since they encode definiteness in the lower parts of (42b). As already mentioned, H4 is the position of Scandinavian (and possibly Bulgarian) definite suffixes, and when the possessive moves from P to GenS in these languages, D does not block chain formation as in the case of Italian, Dutch, and German.

Although I fully acknowledge the comprehensive nature of Reuland’s analysis and observations, I will pursue a different type of account here for a couple of reasons.

First, it is not clear how Reuland’s account can explain the fact that Scandinavian languages pattern with English in one way and with SC in another. As already discussed,

unlike English, both SC and Scandinavian have possessive reflexives, but in contrast to SC, possessors in English and Scandinavian can bind a DP internal anaphor:

- (44) a. John_i saw Bill_j's picture of himself_{*i/j}. English
 b. Peter_i så [DP John_s_j fem billeder af sig selv_{*i/j}]. Danish
 'Peter saw John's five pictures of himself.'

These facts are problematic if H4 is the position associated with both Scandinavian and Slavic languages, which seems to be the case in Reuland's analysis. Furthermore, in contrast to SC, Scandinavian languages disallow LBE.

Second, on Reuland's analysis "... chain formation via the extended verbal projection explains that POSS anaphors are subject oriented" (Reuland 2011: 167), which appears to be too strong. That is, possessive reflexives are not always subject-oriented, as illustrated by the following Bulgarian examples:

- (45) a. Ivan_i popita Petrovija_j bašta_k za **sebe** si_{i/*j/k}. (Schürcks 2003: 77)
 Ivan asked Peter's father about himself
 'Ivan asked Peter's father about himself.'
- b. Ivan_i popita Penčovija_j sin_k za **svoja**_{i/*j/k} prijatel. (Schürcks 2003: 82)
 Ivan asked Penčo's son for self's friend
 'Ivan asked Penčo's son about his friend.'

Bulgarian reflexive pronouns *sebe si* and its possessive form *svoj* can both be bound by the sentential object, which might be problematic for Reuland's account of these facts. In

addition, as shown in a number of works, many East Asian languages have non-subject-oriented reflexive pronouns (which I discuss in the sections to follow), 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. In the next subsection I present my own analysis.

3.3.3 *Reflexive Possessives, Definiteness and Phases*

Reuland's observation crosscuts the historical relation between the languages in question, which highlights its significance from a typological perspective. For instance, the contrast between Dutch and Germanic languages that mark definiteness via clitic/affix is quite interesting: even though Dutch, Danish, Norwegian, Swedish, Faroese and Icelandic involve very similar inventory of anaphoric elements, only Dutch lacks reflexive possessives. On the other hand, as noted by Marelj, within the Romance group only Latin has possessive reflexives, and unlike Spanish or Italian, it lacks definiteness marking.

The generalization in question illustrates well the familiar tension between descriptive and explanatory adequacy - the theory of syntax must be flexible enough to allow for the existence of such facts, yet at the same time strict enough to derive all possible and impossible systems. In this section I will limit my discussion to well-studied languages of the Indo-European family. In the Appendix to this chapter I go over a number of languages outside the Indo-European family, and show that they are compatible with Reuland's generalization. Note also, for the sake of the argument, that

Lezgian (e.g., (27)) discussed by Haspelmath, which patterns with Latin and SC, does not mark definiteness.

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:

(46) [_{DP} D [_{AP} Adj [_{NP} N]]] (DP languages)

(47) [_{NP} AP N] (NP languages)

The underlying assumption is that DPs and NPs, but not APs, can function as arguments. In English-type languages this assumption has no relevant consequences, since DPs always dominate APs. However, this is not the case in SC-type languages, where, due to the lack of DP, APs would end up functioning as arguments if they dominated NPs. Consequently, in languages like SC APs do not dominate NPs. Given this, LBE is not possible in (46) (i.e., languages that project DP) because it would involve extraction of a non-constituent. That is, the AP in (46) is not a constituent to the exclusion of the NP. The non-constituency problem does not arise in (47) (DP-less languages like SC), where the NP dominates the AP.⁹

Going back to the list in (41), I assume that the structure in (46) holds for all definiteness-marking languages on that list, regardless of whether they encode

⁹ 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.

definiteness prenominally or postnominally. This explains why LBE is not possible in these languages.

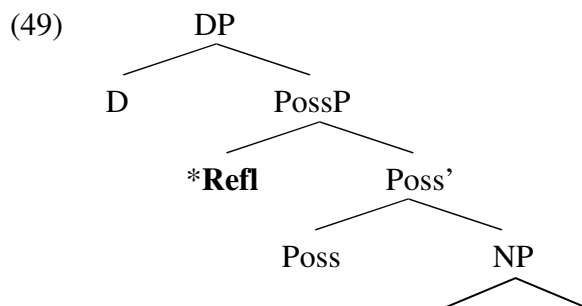
My analysis consists of two central assumptions. First, I will follow works by Szabolcsi's (1981, 1983, 1992) and Kayne (1994), and assume that the possessor in possessive constructions in DP languages is preceded by an independent DP. As already discussed in Chapter 2, these analyses are motivated by a variety of cross-linguistic facts, such as the Italian example below:

(48) *il mio libro*

the my book

The crucial step in the transposition to English (and other DP languages) is to take the English prenominal possessor to likewise be preceded by D, which in English must be empty.

Second, as suggested in the previous section, 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 ν and C are) and it takes PossP as its complement. This is illustrated below:



Taking the possessor to be in SpecPossP, as in (49), we can now account for why it cannot have a reflexive form in the languages listed in (41)-I. Since DP is a phase and a binding domain, 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.

(50) John_i saw Bill_j's picture of himself_{*i/j}.¹⁰

Languages which do not mark definiteness at all (i.e., (41)-IIB) do not project DPs by assumption, 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, which was shown to be correct for SC in the previous section.

A problem that might be raised for English at this point concerns constructions with reciprocals in the possessor position.

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

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 1986b, Bhatt and Pancheva 2001, among others):

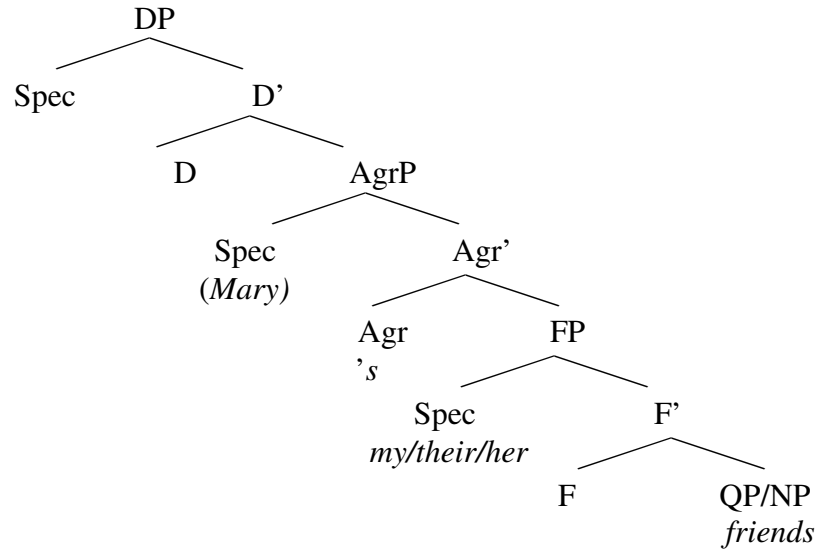
(i) John_i told Mary [PRO_i lies about himself_i].

I return to this issue in section 3.4.

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 ν 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) and Bernstein (2005) argue that pronominal possessors are lower in the structure than full DP possessors. They propose that the possessive pronoun is positioned in the specifier position of the FP functional head in (52), leaving it open whether this is a base generated or a derived position.

(52)

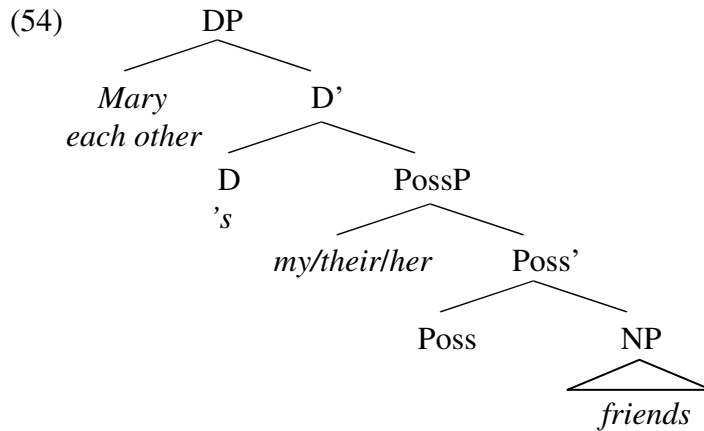


Bernstein and Tortora (2005) argue that a structure like (52) allows us to explain a number of English facts, such as the contrast in (53) (i.e., (53b) is not possible since *their* is located lower than 's):

- (53) 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:¹¹

¹¹ It is possible that *Mary* and *each other* in this structure move from SpecPossP.



In contrast to (52), the structure in (54) 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. This explains why reciprocals pattern with Possessive DPs with respect to the availability of the word final morpheme *-s* characterizing English possessive forms:

- (55) a. Mary's/the woman's friends
 c. each other's friends
 b. *their's friends

Consequently the reciprocal pronoun in English is always at the edge of the DP phase, hence can be bound by an antecedent in the higher binding domain.¹²

¹² 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., *vP*), whereas *their* is in the complement of the D head (i.e., SpecPossP), and consequently in a separate binding domain.

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:

- (56) a. They could read their own medical records, but they could not read each other's.
b. They could read their own medical records, but they could not read John's.
c. *They could read their own medical records but they could not read my.

I come back to this contrast in section 3.4, where I will argue that only complements of the phase head D may be elided. As discussed in that section, (56) 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 (i.e., (40)-IIA), which in my opinion constitute the most interesting case and deserve special attention. In the following subsections I propose two alternative analyses of the relevant facts.

3.3.3.1 The Spell-Out Delay Analysis

In this subsection I propose an analysis on which the presence of reflexive possessives in languages which mark definiteness postnominally is accounted for by assuming that D in these languages is a phase head, but that it spells out at a later point. That is, I suggest that although it is structurally identical to the DP proposed for English (i.e., (46) above),

the DP that characterizes the languages in (41)IIA operates on a different cycle. The reasoning behind this proposal is not too complicated and runs as follows.

One of recurring themes in a variety of approaches to locality, including the *Barriers* model of Chomsky (1986a) and the *Phase* model of Chomsky (2000, 2001), is the proposal that elements at the high periphery of one locality domain are accessible to the next higher domain. In the *Phase* model, this is codified as the ‘edge condition’, where the head X of a phase XP and its specifier(s) are accessible to operations both in the phase defined by XP and in the next higher phase. The complement of X is, on the other hand, inaccessible to elements in the higher phase. This is stated through the ‘Phase Impenetrability Condition’ (Chomsky 2001):

- Phase Impenetrability Condition (PIC):

In phase α with head H, the domain of H (its complement) is not accessible to operations outside of α ; only H and its edge are.

Another important driving force behind the *Phase* model, which has sometimes been confused or used interchangeably with locality, is the notion of *cycle*. The cycle, which was originally introduced in phonology, has played a prominent role in generative linguistics and one of the main goals of the *Phase* model is to try to derive it from interface conditions. Chomsky suggests that the cycle corresponds to a unit of some semantic and phonetic integrity and, following Uriagereka (1999), proposes that Spell-Out itself is cyclic. As the pieces of the derivation are put together, they are sent to Spell-Out in chunks, limiting further access by the computational system. At the same time, LF and PF operations are limited by the same cycle that constrains the syntax, to derive the

phonetic and semantic integrity observed. The suggestion is then that a phase is a cycle and that the notion of phase consists of cyclic derivational processes, cyclic access of the lexicon, and cyclic Spell-Out.

For Chomsky (2000, 2001), vP , headed by the external argument-introducing little v , and CP , headed by the complementizer C , correspond to phases. Within a phase, lexical material is inserted and constituents may move up to higher phase-internal syntactic positions. At the end of a phase, the material in the complement to the head of the phase is spelled out. It is during Spell-Out that phonological form is given to words. In the case of vP the Spell-Out domain is VP . 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. If (possessive) DP is a phase, as I have assumed, then it would pattern with CP , rather than with vP , with respect to when its ‘subject’ (SpecPossP) is spelled-out:

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

In terms of the “semantic and phonetic integrity” there is nothing wrong with the spelled-out chunk in English (57b). But that cannot be inferred that easily for languages which mark definiteness postnominally via affix/clitic. Take Bulgarian for example:

(58) svoja-ta kniga
self's-def.art. book

If Spell-Out proceeds in Bulgarian in the same way it does in English the definite affix/clitic *-ta* in (58), which originates in D, as we will see below, and *svoja kniga* ‘self’s book’ would have to be spelled-out in different cycles. In that case, the “phonetic integrity” of cycle would not be observed since a suffix and its host would belong to separate cycles.

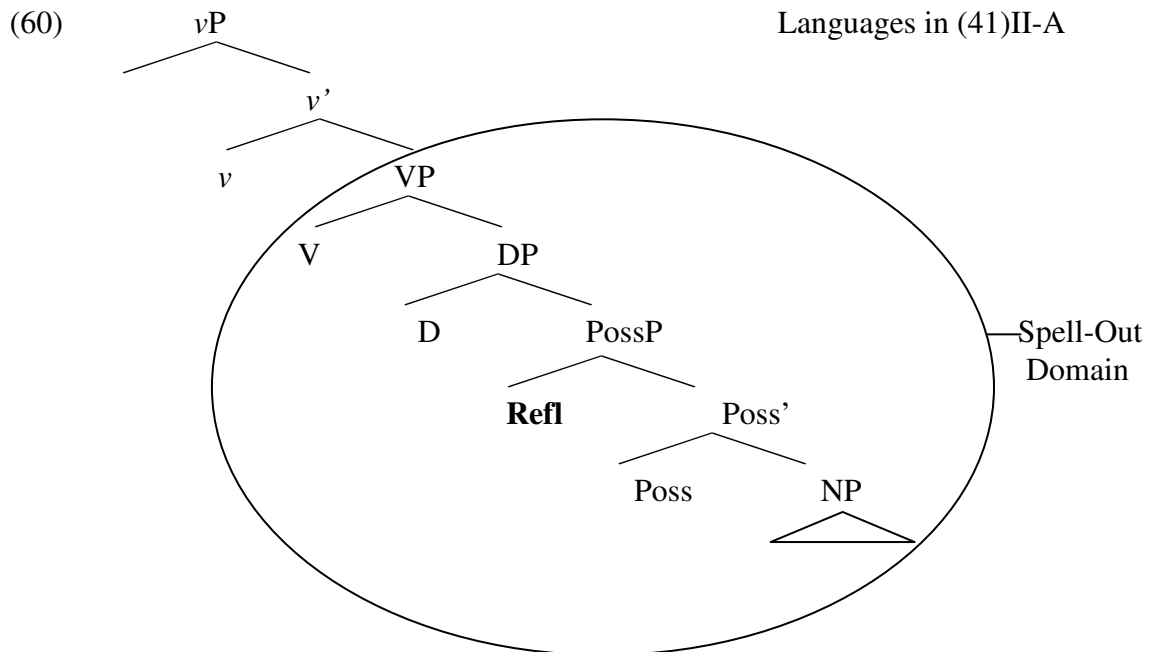
Consider also Icelandic: the article in Icelandic is either free-standing or cliticized (suffixed) to the noun. These two types of articles are in complementary distribution, that is, there is normally no ‘double definiteness’ in Icelandic of the type found, for example, in Faroese, Norwegian and Swedish (Thráinsson, 2007):

(59) a. guli hani-**nn** b. **hinn** guli hani
yellow rooster-the the yellow rooster

Again, if Spell-Out proceeds as in English ‘-nn’ and ‘guli hani’ would have to be spelled-out in two different cycles. But, obviously for all morpho-phonological purposes these elements should be part of the same cycle.

There is a growing body of literature which argues that phases are required to regulate syntax’s interfaces with the semantic and phonological components, and that phonological rules are limited by phases (Kratzer and Selkirk 1997, Samuels 2009, etc.). I therefore suggest that since in languages in which definiteness is marked postnominally via a clitic/affix D is ‘dependent’ on its complement for morpho-syntactic purposes,

Spell-Out is delayed for one cycle. More precisely, I assume that in these languages the first Spell-Out cycle applies at the vP -level (i.e., when v 's complement VP is spelled-out):



Thus, the first Spell-Out cycle in Icelandic or Bulgarian, I suggest, applies at the same point as in SC. This ‘delay’ of the Spell-Out cycle then is the reason why all three languages have reflexive pronominal forms. That is, unlike in English, there is enough time for the reflexive possessive in Icelandic or Bulgarian to extend its binding domain to the next higher phase (i.e., vP) and establish a licit anaphoric relationship. Therefore, Icelandic and Bulgarian pattern in this respect with SC and Latin, rather than with English.

Let us consider this in more detail now. There are two hypotheses on when phases undergo Spell-Out:

- (i) phases undergo Spell-Out when they are finished (Chomsky 2000)
- (ii) phases undergo Spell-Out when the next phase-head is reached (Chomsky 2001)

Consider first the option (i). On this view, the complement of D (i.e., PossP) is spelled out after the DP phase is completed; i.e., after both the D head and its edge have been merged. Then in English reflexive possessives are not possible because they can never be bound by an argument in the higher vP phase before they get spelled out as part of PossP. In Bulgarian, on the other hand, Spell-Out of DP is delayed for one cycle, by assumption. As a consequence, in Bulgarian SpecPossP is not spelled out until the vP phase is completed (i.e., until the v head and its edge are merged), which allows reflexive possessives in SpecPossP to be bound by an argument introduced in the vP phase, including the external one.¹³

- (61) a. [vP v [VP V [DP D **ta** [$PossP$ [$Reflexive$ **svoja**] [NP **kniga**]]]]]\$_{SPELL-OUT}\$
- b. svoja-ta kniga
 self's-def.art. book

In (61) VP is spelled out only after v and its edge have been introduced. This leaves enough time for *svoja* ‘self’s’ in Bulgarian to be bound by an argument in the higher vP phase.

¹³ I assume here that Spell-Out takes place after both the phase head triggering Spell-out and its SPEC are merged. This is in fact necessary to allow Object Shift. If VP were to be spelled out immediately after v merges, for instance, Object Shift, which is movement to Spec vP , would never be able to take place.

The option (ii) potentially poses more problems for the analysis presented here. Consider then the following illustration of why a reflexive possessive cannot be licensed in a language like English on this alternative either. In (62a) the reflexive possessive is unbound in its domain (i.e., DP-phase) since there is no c-commanding argument that can bind it. In (62b) the derivation continues but PossP still does not undergo Spell-Out since the higher ν phase head has not been reached. Also, no argument with which the reflexive can establish a legitimate anaphoric relationship is present. Furthermore, at this point there is just one binding domain in which the anaphor can be licensed, namely the DP-phase, since the ν head which could potentially extend the binding domain to the ν P phase has not been merged yet. The merger of ν triggers the spell-out of PossP, with the reflexive remaining unbound (e.g., (62c)).¹⁴¹⁵

- (62) a. [_{DP} D [_{PossP} [Reflexive Possessive] picture of Colorado]].
- b. [_{VP} V [_{DP} D [_{PossP} [Reflexive Possessive] picture of Colorado]]].
- c. ν [_{VP} V [_{DP} D [_{PossP} [Reflexive Possessive] picture of Colorado]]]_{SPELL-OUT}

In Bulgarian, on the other hand, DP is spelled-out on the ν P cycle. That is, PossP stays in the derivation until VP spells out and that happens when C merges, by hypothesis. On the second alternative, Spell Out in Bulgarian proceeds as in (63), instead of (61):

¹⁴ It is important to notice that Spell-Out here happens before the edge of ν P is merged.

¹⁵ At this point, a question might be raised as to why indirect objects in English do not license reflexive possessives, given that they are merged before the ν phase head and that the English reflexive pronoun is not strictly subject-oriented (i.e., *himself* is not necessarily associated with the argument introduced by ν , as I assume is the case for SC *sebe*). One way of dealing with this issue is to assume, along the lines of Collins and Thráinsson (1993), Den Dikken (1995), Kayne (1984), Kitagawa (1994), Mulder (1991), and many others, that double object constructions in English involve a small clause, and that there is a phase boundary between the two objects. Alternatively, following ideas of Larson (1988), it may be hypothesized that there is a separate ν P shell for every argument in double object constructions.

- (63) a. C [TP T [vP v [VP V [DP D **ta** [PossP [Reflexive **svoja**] [NP **kniga**]]]]] SPELL-OUT
 b. svoja-ta kniga
 self's-def.art. book

In (63) too there is enough time for the reflexive *svoja* to get bound by an argument in the higher vP domain, since SpecvP is merged into the structure before PossP is sent to Spell-Out (as part of the VP Spell-Out, which happens at the point when C is merged). The reflexive possessive cannot be bound across the CP domain, however, since VP undergoes Spell-Out once C is merged. Thus, once we adopt the proposal that Spell-Out of DP is delayed in Bulgarian, but not in English, the two alternative approaches to Spell-Out given above essentially make the same prediction.

Now, one of the crucial assumptions is that pronominal possessives in DP-languages occupy a position which is not at the edge of DP, but inside D's complement. For this reason, as already noted in (57), DP-phase is similar to CP and not vP, in terms of the structural position of the relevant 'subject' argument. That is, both the clausal 'subject' (SpecTP) and the possessor 'subject' (SpecPossP) occupy a position inside the complement of the phase head that defines their phase domain (i.e., C and D, respectively), which makes them in a similar vein inaccessible to higher domains. Thus, when it comes to binding, neither possessors nor clausal subjects in languages like English can have reflexive forms. The observed parametric variation then comes about as a consequence of two hypotheses, where (i) "takes care" of languages like SC, and (ii) of languages like Bulgarian:

- (i) Unlike CP, DP is not a universal projection and is absent in many languages.
- (ii) DP may be subject to ‘delayed’ Spell-Out depending on the general morpho-syntactic properties of the language in question.

The external, ‘subject’ argument of the ν P phase, on the other hand, is at the edge of its phase and is therefore not closed-off for further operations. Thus, in SC, ‘process’ nominals, which I have argued are nominalized ν Ps, can have reflexive possessors:

(64) Igor je završio svoje opisivanje Afrike.

Igor is finished self’s describing Afrika

‘Igor finished his describing of Afrika.’

One might argue that the Spell-Out story is an unnecessary complication, and that it would be easier and more parsimonious to assume that the DP in Icelandic and Bulgarian is not a phase, hence does not constitute a binding domain. After all, it is not the assumption that DP is a phase that accounts for why these languages disallow LBE, but the DP structure in (46). However, recall that the explanation for the ungrammaticality of (4), repeated below as (65), was that SC ‘non-process’ nominals such as *slika* ‘picture’ and *članak* ‘article’ are bare NPs, not DPs, and that their possessors cannot bind a (subject-oriented) reflexive. More precisely, since there is no DP phase in (65) in which the reflexive can be bound the sentence is unacceptable:

(65) *_[NP Marijin_i članak o sebi_i/svojoj_i deci] je veoma popularan.

Mary's article about self/self's children is very popular

'Mary's article about herself/her children is very popular.'

But, as already illustrated with an example from Danish, possessors in these languages do bind subject-oriented anaphors, which suggest that they should be treated as DP-phases:

(66) Peter_i så _{[DP Johns_j fem billeder af sig selv_{*i/j}].¹⁶ Danish (Vikner 1985: 38)}

'Peter saw John's five pictures of himself.'

In other words, even in languages that encode definiteness postnominally DPs are phases and binding domains. On the assumptions advanced in this subsection, it is the delay of Spell-Out that opens the window for binding of reflexive possessives in these languages, making them similar to DP-less languages.

The proposal that phases can be extended or delayed (in one way or another) is certainly not novel and has been developed and formalized in different ways by different authors. Thus Gallego (2010) formulates the term *Phase Sliding*, while den Dikken (2007) talks about *Phase Extension*. For both of these approaches head movement plays the crucial role, which is quite different from the direction I am taking here.

¹⁶ Note that the possessive reflexive *sin* may also be bound within a DP, as noted by Hestvik (1992) :

(i) John likte <sub>[DP₁ Marits_i bilder [av _[DP₂ sine_i foreldre]]]. Norwegian (Hestvik 1992: 582)
John liked Mary's pictures of her-REFL parents
'John liked Mary's pictures of her parents.'</sub>

Note also that nothing in the model presented in this section rules out the possibility of *sine* in (i) being anteceded by the clausal subject *John*. If this binding dependency is not possible, an additional assumption would need to be adopted to block it (e.g., an appeal to a closer binder).

The idea that D in the languages listed in (41)-II-A is somehow ‘dependent’ on its complement and that it should together with it be part of the same Spell-Out domain is consistent with some rather standard analyses of definiteness marking in these languages.¹⁷ I illustrate this with Bulgarian and Danish.

Bulgarian shows a “suffixed” definite article, which has a clitic-like distribution within the DP (see Sadock 1991, Halpern 1992, Tomić 1996, Franks 2001, Embick and Noyer 2001 among others). This definiteness element appears suffixed to nouns, or, when they are modified by adjectives, suffixed to the first adjective in a sequence:

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

This suffixed article contrasts with an overt demonstrative, which appears in the expected place, on the assumption that the demonstrative is in the specifier of DP.

- (68) tazi kniga
 this book

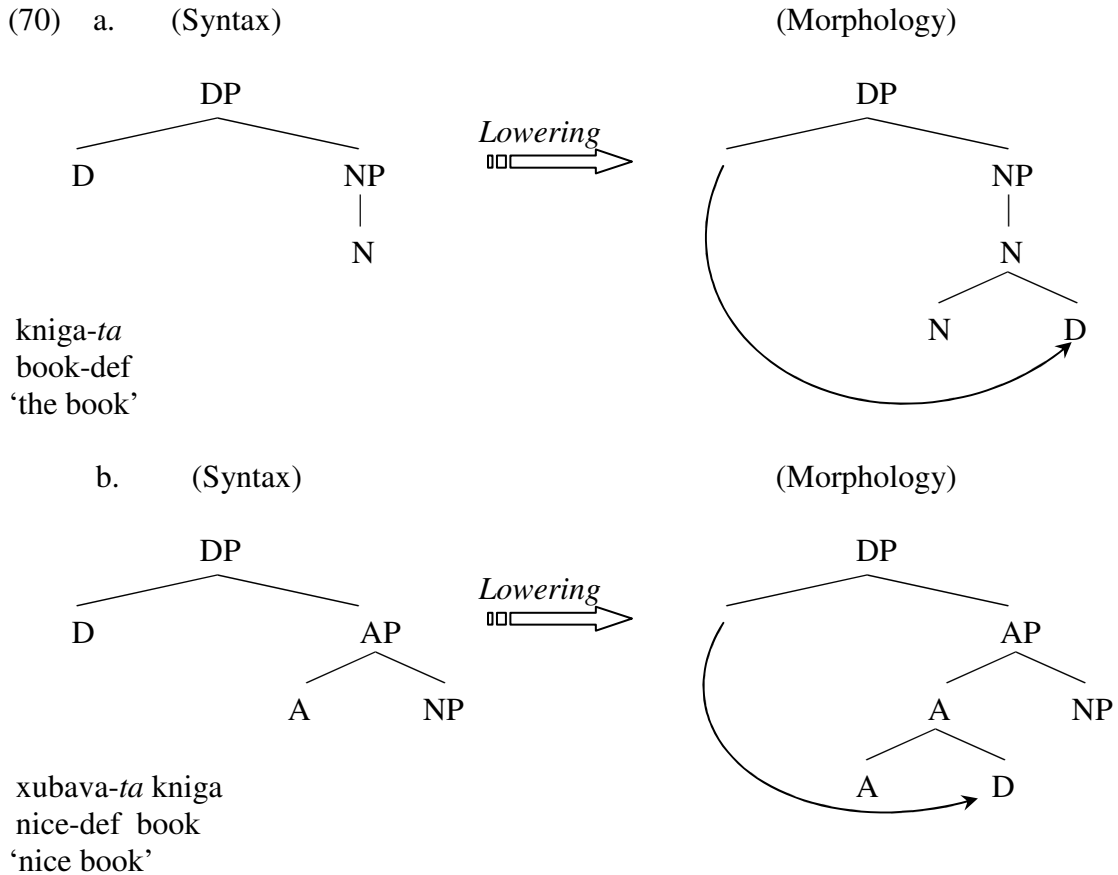
The similar situation is found in closely related Macedonian, as illustrated in (69):

- (69) a. Kniga-ta (книга-та)
 book –def

¹⁷ It should be noted here that there are different types of prosodic dependencies (e.g., clitics, affixes, etc. ...), which I assume are satisfied at different points of the PF derivation and/or via different PF operations. Depending on how/when the relevant property is satisfied, not all weak elements will delay Spell-Out.

- b. Ubava-ta kniga (убава-та книга)
 nice-def book
- c. ovaа kniga (оваа книга)
 this book

Embick and Noyer (2001) argue that the post-syntactic operation of *Lowering*, which operates on the structure that is the output of syntax, derives these facts. Again, the assumption is that attributive adjectives are heads taking NP complements. In (70b) below, the A head is the target of Lowering from D, while (70a) gives an example without an adjective, in which D lowers to N:



Under these assumptions the structures of English and Bulgarian DPs are identical in the syntax, but due to a purely morphological process the definite article in Bulgarian ends up being right-adjoined to the adjective or to the noun. In order for *Lowering* to apply, however, D and its complement have to belong to the same Spell-Out cycle.

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:

- | | | | | |
|---------|-------------|----|-----------------|---------------|
| (71) a. | hest-en | b. | den røde hest | <i>Danish</i> |
| | horse-def | | def red horse | |
| | ‘the horse’ | | ‘the red horse’ | |

There are various approaches to these issues. The line of research that best fits the analysis presented in this section is most notably represented by Embick and Marantz (2008). In their discussion of Danish, Embick and Marantz argue that D in this language affixes to N under linear adjacency in PF (Embick and Marantz 2008: 43):

(72) *D-suffixation*

$$D[\text{def}] \widehat{\text{N}} \rightarrow \text{N} [[\text{N}]\text{D}[\text{def}]]$$

According to (72), when D[def] is concatenated with N (i.e., with an n-headed element), D is adjoined to N, where it is realized “affixally.” Again, I assume that D and N have to be part of the same cycle in PF in order for an operation like (72) to apply.

This kind of adjacency-based merger predicts the kind of left-right asymmetry found in Danish.¹⁸ In cases with prenominal adjectives (e.g., (71b)), (72) cannot apply because D and N are not linearly adjacent (and only nouns can support the D affix in Danish). When, on the other hand, the NP contains post-N material, such as a PP, nothing prevents the rule from applying, as its structural description is met:^{19,20}

(73) gris-en med blå pletter
pig-def with blue spots
‘the pig with blue spots’

Given the facts above, it is plausible to assume that in order for these various morpho-phonological operations to take place, D and its complement in the languages in question

¹⁸ Some Scandinavian languages, like Swedish, exhibit double definiteness. That is, overt determiners co-occur with definiteness marking on nominals when, for instance, an adjective precedes the head noun (as in (71b)), resulting in a type of doubling:

(i) den gamla mus-en
the old mouse-def
‘the old mouse’

Embick and Noyer (2001) essentially adopt Delsing (1993), to which I come back in the next subsection, and argue that Swedish has an additional PF condition to the effect that N in the context of D_[def] must be marked morphologically for definiteness in a kind of concord.

¹⁹ See Hankamer and Mikkelsen (2002, 2005) for an alternative analysis.

²⁰ We can assume that Spell-Out of DP in languages like Danish is delayed even in cases in which D is not suffixal, as in (71b). That is, delay of Spell-Out cannot be selective; a phase is delayed either always or never, not just sometimes. However, we will see in the next subsection that possessors and definite articles in Scandinavian are in complementary distribution; i.e., possessive constructions in these languages lack definite articles. One way of dealing with this on the present approach is to assume that D in possessive constructions in Scandinavian is null, just like in English, and that it is always “suffixal” (since unlike in English, the overt D in Scandinavian is also “suffixal”; see also Bošković 2008b). There would then always be need to delay Spell-Out in possessor constructions.

in general have to be spelled-out in the same cycle. The relevant Spell-Out domain is vP , which allows the reflexive possessor to establish a legitimate anaphoric relation in the higher vP binding domain, just like in SC and Latin. On the other hand, since there is no relevant motivation for the complement of the D head in languages like English to delay Spell-Out, D and its complement undergo Spell-Out at different points. Consequently, possessives in languages that encode definiteness prenominal are limited to non-reflexive pronominal forms.

3.3.3.2 The Movement-to-D Analysis

On the analysis that I have presented in the previous subsection, in languages like Icelandic and Bulgarian DP is a binding domain, but this binding domain is extended to vP in the case of the possessor due to the nature of the D head in these languages.

I would now like to suggest an alternative analysis of the facts observed in languages with postnominal definiteness marking on which the possessor in these languages, similarly to other elements, simply moves to the DP domain. Since this movement targets the edge of D, the possessor in languages like Icelandic and Bulgarian is ultimately bound in the higher phase. On this analysis, there is no delay of Spell-Out: phases are binding domains, and the possessor moves to the edge of the DP 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 D in these languages. Thus, in this case we can say that

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 (I come back to feature inheritance in the next subsection).

It should therefore not be particularly 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 certain 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 *vP*. Thus, the possessor is no longer “closed off” for binding in the complement of *D*, which makes the reflexive possessives possible.

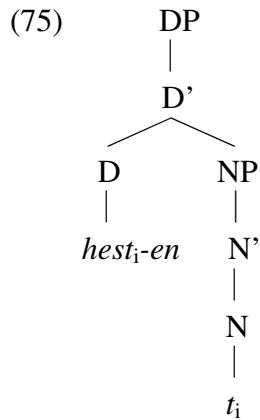
The facts, however, are not simple and deserve careful attention. In particular, noun phrases in Scandinavian also come with a prenominal article when the noun is modified by an adjective, as already illustrated by the Danish example in (71b). So the question is then whether reflexive possessives are 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 summarize the relevant facts below, and show that this is indeed true, as noticed and discussed by a variety of authors.

There are essentially two types of approaches to Scandinavian definite articles: PF Merger type analyses and Movement-to-*D* type analyses.²¹ In the previous subsection I have discussed the former type and in this section I will focus on the latter, since the account argued for in this section requires this type of analysis.

Delsing (1993) pursues a movement-based analysis, which I will briefly summarize below. To account for the contrast in (71), repeated below as (74), Delsing argues that both structures involve a definiteness marker base-generated in *D*, and that (74a) is derived by head movement of *N* to *D*, as illustrated in (75):

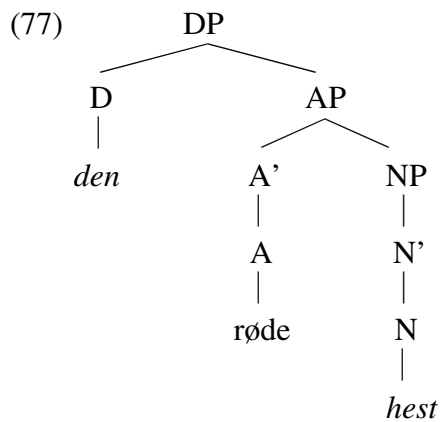
- | | |
|-----------------|------------------|
| (74) a. hest-en | b. den røde hest |
| horse-def | def red horse |
| ‘the horse’ | ‘the red horse’ |

²¹ See Hankamer and Mikkelsen (2002, 2005) for a lexicalist type of analysis.



Delsing assumes a DP structure where D can take an AP complement as well (which is in line with the present analysis; see the structures in (46)-(47)). The definite suffix does not co-occur with attributive adjectives (e.g., (76)), and Delsing proposes that this follows from the adjective blocking head movement of N to 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., (77)).

- (76) a. *hest-en røde. b. *røde hest-en.
 horse-def red red horse-def



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. This is illustrated by the following examples from Icelandic:

(78) a. *allar **hinar þínar** þrjár nýju kenningar

all the your three new theories

b. *allar **þínar hinar** þrjár nýju kenningar

all your the three new theories (Thráinsson 2007: 117)

Fiva (1987) and Delsing (1993) observe that the genitival *-s* and the reflexive possessive *sin* in Norwegian have the same restrictions in possessive constructions:

(79) a. mannen med skjeggets hus

man-the with beard-the's house²²

b. mannen med skjegget sitt hus

man-the with beard-the reflexive house (Delsing 1993: 160)

Following Fiva (1987), Delsing (1993) assumes that the reflexive *sin* and the Mainland Scandinavian genitival *-s* are the same category. Delsing claims that both are generated in the Poss⁰ position of PossP, and since they are both inherently definite they must raise to the D position. He proposes the structure in (81) for the constructions in (80) (Delsing 1993: 172):

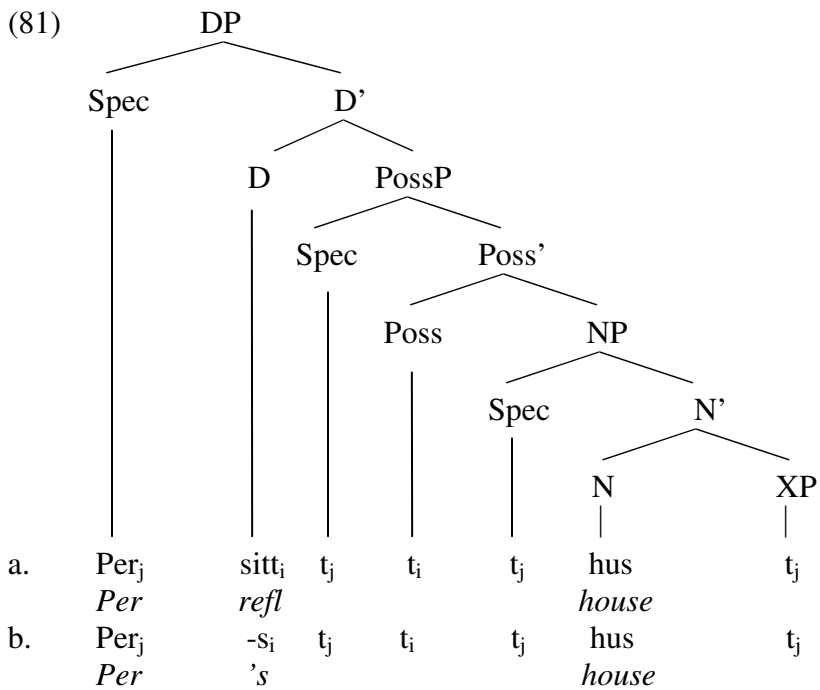
²² The definite article suffixed to 'beard' is from the DP 'the beard'.

(80) a. Per/læreren sin bil

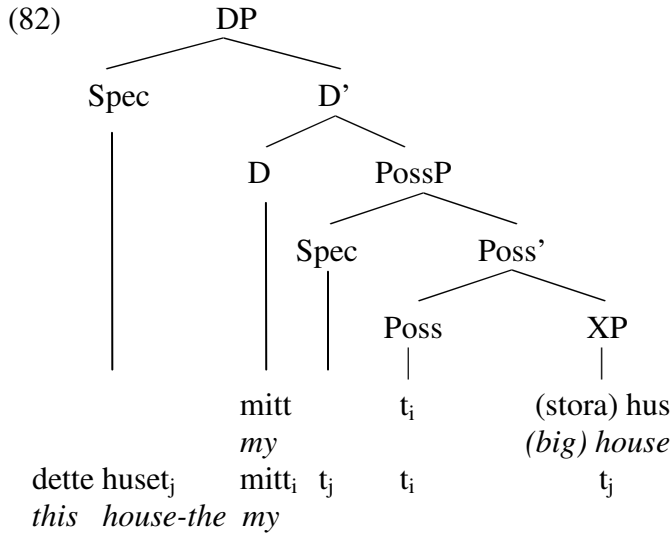
Per teacher-the reflexive car

b. Pers/lärarens bil

Per's teacher-the's car



The proposal is that the possessor DP in (81) raises from the complement position of N to SpecDP. Furthermore, Delsing argues that all possessive pronouns in general are base generated in the head of PossP, and then raise to D (Delsing 1993: 173):



Briefly, 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. Thus, Delsing assumes that Poss may select either NP, AP, DegP or DP as its complement. When DP is selected (i.e., when XP in (82) is a DP) it moves to SpecDP for case purposes, under Delsing's analysis. Delsing contends that with these assumptions all the orders in the Scandinavian possessive construction can be derived (see also Taraldsen 1989, Holmberg 1991, Sigurðsson 1993, Delsing 1998, Thráinsson 2007, among many others, for further discussion).

Thus, there is 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 theory of

syntactic categories which goes back to Chomsky 1970). 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 Scandinavian comes about as a consequence of general movement to D triggered by its EF.

The Bulgarian D in this respect minimally differs from its Scandinavian counterpart in that it attracts adjectives as well. That is, both [+N -V] and [+N +V] elements can satisfy EF of the Bulgarian D.

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

Note also that according to Penka Stateva (personal communication) Bulgarian (84a), in which the reflexive precedes the adjective, is highly preferred over (84b). In fact, (84a) is apparently quite odd and should be marked with at least two question marks.

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

This is completely expected given that on the current analysis DP in Bulgarian dominates PossP which in turn dominates AP. If the order between PossP and AP were not fixed we

would expect (84b) to be grammatical as well. This also indicates that the reflexive possessor always moves to the edge of D in Bulgarian.

Thus, in both Scandinavian and Bulgarian 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, ν 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 chapter.

If the C phase head has EFs in certain languages but not in others (cf. e.g., the interrogative C), then the D phase head should not in principle be any different. In this subsection I have argued that D in languages like Icelandic and Bulgarian has 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.

A potentially problematic issue with the movement account is that in all languages in (41)-II-A the postnominal definiteness marking is spelled out as a suffix, not as an independent phonological word. We may therefore have a missed generalization here since this fact does not seem to directly follow from the analysis presented in this section.²³ That is, movement of various elements in syntax to D should not in principle govern the way that D is spelled out in phonology. It appears that we should expect to see some languages in which postnominal definite markers are phonologically independent words.

²³ Note that this problem does not arise in the delay of Spell-Out analysis presented in the previous section.

However, many authors have suggested that some properties of syntax follow from its interface with phonology. Most recently, Richards (2010) explicitly addresses issues of this sort and formalizes conditions imposed on the narrow syntax by its interface with phonology. For instance, Richards proposes that whether a given language has *wh*-movement or *wh* in situ (or both) is predictable from independently observable properties of the language: (i) the position of the complementizer associated with *wh*-questions and (ii) the nature of mapping of syntactic structure onto prosody. In particular, the claim is that in every language, *wh*-questions are formed by arranging for the *wh*-phrase and the complementizer associated with it to be separated by as few (Minor) phrase boundaries as possible, for some level of Minor phrasing.²⁴ For example, a language like Japanese which places complementizers on one side of *wh*-phrases and habitually maps the other side onto prosodic boundaries is able to satisfy the prosodic conditions on *wh*-questions without movement, and hence can leave *wh*-phrases in situ.²⁵

Richard thus develops a theory on which the syntactic operation of *wh*-movement takes place just in case the prosody requires it. On his analysis, conditions on the prosody can dictate the way syntax operates, i.e., the syntactic component is allowed to “respond” to certain types of phonological information.²⁶

On the assumption that D is a phase head, it can be argued that the problem of stranded affixes in languages like Icelandic and Bulgarian can be resolved in two different ways. The first strategy was presented in the previous subsection, and it involves a delay of Spell-Out. Alternatively, the issue of stranded affixes can also be

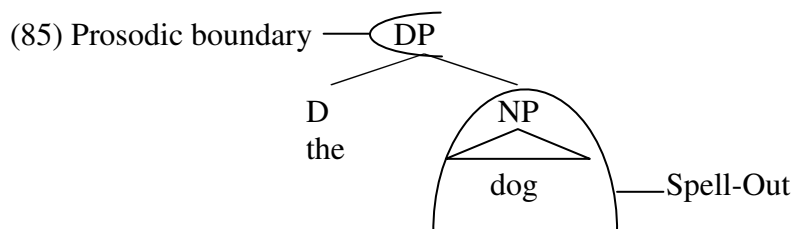
²⁴ Minor phrase stands for the lowest level of phonological phrasing.

²⁵ See also An (2007), who argues that the distribution of null complementizer clauses in English crucially depends on prosodic phrasing.

²⁶ Admittedly, Richards’ analysis does face a “look ahead” problem, which he recognizes and addresses.

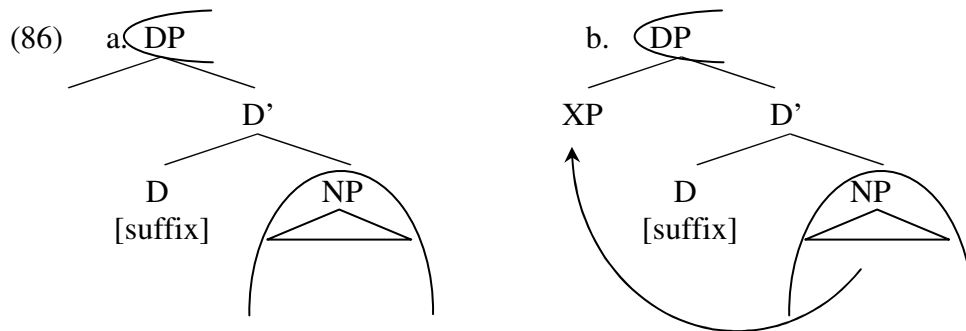
dealt with by movement in the syntax, which would supply a host for the suffixal article. The trigger for this movement would be partly motivated by PF considerations, since an affix without a host would ultimately result in a crash at PF. This is along the lines of Richards (2010) who argues on independent grounds that certain properties of narrow syntax, including syntactic movement, follow directly from its interface with phonology.

Another possibility is to adopt one of Richard’s proposals and hypothesize that the process of Spell-Out is among other things responsible for inserting prosodic boundaries on the right or the left edge of a phase. Under this hypothesis, once the DP phase is fully constructed, it would undergo Spell-Out, which would have two consequences. Spell-Out would send the complement of D to PF, where it would ultimately be assigned phonological form, and at the same time it would assign a prosodic boundary to the left edge of the DP phase. This is illustrated in (85) below.



There would be a problem, however, if the item that is inserted in D at PF is a suffix, i.e., if it is a phonologically dependent element which needs to form a prosodic word with an element directly to its left. Thus, the suffixal article, which always needs a host to its left, is incompatible with a left edge prosodic boundary directly preceding it. This would necessarily result in a PF crash. In order to minimize mismatching between syntax and

PF, we could then assume that D in such languages develops an EF which attracts elements in its complement.



In (86b) the element immediately following the prosodic boundary is not a suffix, and there is no clash at PF. It can be argued therefore that the most efficient way of avoiding such syntax-phonology interface problems is to syntactically move an XP to the edge of the DP phase, which would ultimately be able to “support” the left edge prosodic boundary and serve as a host for the suffix on its right.²⁷

I thus speculate that syntactic movement of various elements to D in languages in (41)-II-A is ultimately triggered or motivated by phonological considerations. This, of course, does not mean that movement to D must be always driven by PF conditions, and that postnominal D is necessarily spelled out as a suffix. In fact, Koromfe, a language spoken in the north of Burkina Faso, has a postnominal definite article which clearly is not a suffix. Definiteness in this language is marked with a separate word, which is located at the end of the noun phrase (Rennison 1997, 234):

²⁷ Note in this respect that An (2007) argues that phonologically null elements cannot mark some types of prosodic boundaries. We can extend this line of reasoning to affixes (which are phonologically weak elements), and assume that it holds for suffixes and left boundaries.

(87) a bərə hoŋ warəgi.²⁸

ART man+SG def. be tired

‘The man is tired.’

(Rennison 1997: 288)

Koromfe also has a reflexive pronoun *gille* which can also be used as a reflexive possessive (Rennison 1997: 109):

(88) də pa də gille bi a salla 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.’

Koromfe thus fits the generalization in (41) in that it has reflexive possessives and at the same time marks definiteness postnominally. In contrast to the languages in (41)-II-A, however, the definiteness marker in Koromfe is not a suffix. In light of Koromfe perhaps there is no need to say anything special about the role of PF in movement to D. The question may still remain, however, as to why the majority of languages that encode definiteness postnominally do it with definite suffixes.

In the next subsection I will investigate some further consequences of the analysis developed here. In particular, given that one of the core assumptions of this chapter is that D is a phase head my goal will be to draw a close parallel between C and D. Crucial to the discussion will be the claim 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

²⁸ 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 confusingly as ‘article’. However, an NP modified only by *a* is always indefinite; the postnominal definite determiner *hoŋ* in (87) contributes definite interpretation (Rennison 1997: 81).

and DP is partially 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. I will show that such a view can provide a principled account for certain generalizations regarding reflexives (and anaphors more generally) in subject positions.

3.4 D-Poss vs. C-T

The concept of the C-T system, that is, the idea that the C and T (or I) layers of syntactic structure form an integral unit, can be traced back to the early work in the Government and Binding (GB) theory. These two categories developed from one category S (Sentence), which was the highest category in the sentence structure in the earliest versions of generative grammar. The category S became more complex as the theory evolved and the higher category S' was added to the sentence structure. A functional category INFL (Inflection) introduced in Chomsky (1981) served to determine whether the clause was finite or non-finite. At the same time, IP was defined as a “defective” projection in Chomsky (1986a) (in that it is not an inherent barrier and can only become one by inheritance) which is quite similar to the view regarding TP in the phase-based approach, on which T is not a phase head and is, in some sense, defective.

The idea that C and T are tightly connected to each other 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.²⁹

As for the question of why C needs T in this feature inheritance model I refer the reader to M. D. Richards (2007), who argues that the mechanism of feature inheritance is deducible from two independently motivated requirements on Agree and Transfer:

- (i) Value and Transfer of uFs must happen together.
- (ii) The edge and nonedge (complement) of a phase are transferred separately.

Briefly, the argument is that a uF on C matching another uF in its domain (i.e., its complement) can never satisfy both of these requirements at the same time. If, on the one hand, such two uFs are Valued and Transferred together, the second requirement is violated since the phase head C and its complement TP are not transferred in separate cycles. If, on the other hand, the two uFs are transferred separately in accordance with the second requirement, their valuation and transfer cannot happen together (i.e., in a single

²⁹ 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 2001, 2004a/b, 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.

cycle) in violation of the first requirement. Richards argues that the only device that can reconcile (i) and (ii) and ensure convergence at the interfaces is feature inheritance. Once the uF on C is passed down to T, it can enter Agree within TP without violating any of the two requirements above.

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). If C as a phase head is the locus of formal features which are passed down 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 argue 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:

- (89) a. John_i saw [_{DP}[_{POSSP} Bill_j's picture of himself_{*i/j}]].
b. John_i saw [_{DP} the picture of himself_i].

Sentences like (89b) are standardly explained by assuming PRO in SpecDP (see footnote 10), but its presence there was never really fully motivated and is incompatible with many approaches to the distribution of PRO. However, if we take seriously the proposal that D is a (strong) phase only when it is matched with Poss, we can explain the data in question without appealing to the PRO analysis.

More precisely, since the object DP in (89a) includes PossP, it counts as a phase and the reflexive pronoun therefore must be bound within that phase. In (89b), 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 vP phase. Note again that this analysis does not affect our analysis of LBE, which is explained via the structures in (46)-(47) and not the phase-hood status of D per se.³⁰

Another strong piece of evidence in support of the proposed analysis comes from constructions involving ellipsis, which were already introduced in section 3.3.3. As discussed by Jackendoff (1971), Saito and Murasugi (1990), Lobeck (1990) and many others, ellipsis in the nominal domain in English is possible only when it strands a genitive phrase. Thus the following contrasts obtain:

- (90) a. They could read their own medical records, but they could not read each other's ~~medical records~~.
- b. They could read their own medical records, but they could not read John's ~~medical records~~.

³⁰ 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 is in fact always absent with verbs like *hear*. See also Hicks (2009) for a discussion.

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 medical records but they could not read my ~~medical records~~.

The current model accounts for the facts in (90) in a straightforward way if we adopt the proposal by a number of authors (e.g., Boeckx 2009, Gengel 2009, D. Takahashi 2002, M. Takahashi 2011) that only phase heads license ellipsis of their complement. The D head of the object DPs in (90a-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 (90c-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 (90e) does not license ellipsis because it occupies a position within the PossP (see section 3.3.3); 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 (90)' below (see also footnote 11):³¹

³¹ 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)).

- (90)'
- a. [DP each other [D' 's [~~POSSP~~ [~~POSS~~ ~~POSS~~ [~~NP~~ ~~medical records~~]]]]].
 - b. [DP John [D' 's [~~POSSP~~ [~~POSS~~ ~~POSS~~ [~~NP~~ ~~medical records~~]]]]].
 - c. [DP [D' the [~~NP~~ ~~book~~]]].
 - d. [DP [D' a [~~NP~~ ~~book~~]]].
 - e. [DP [D' D [~~POSSP~~ my [~~POSS~~ ~~POSS~~ [~~NP~~ ~~medical records~~]]]]].

Moreover, the facts in (90) lend further support to the analysis of the English DP advanced earlier, on which reciprocal possessors 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.³²

Now, if D without Poss is transparent for binding, as I suggest, then we may expect similar to hold for the C-T complex. That is, 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 which lack T reflexives in subject positions should be possible, since CP would not count as a phase.

A short digression regarding the structural configuration in question is in order before testing this prediction. Bošković (2010a) argues that the internal structure of clauses in languages that lack DP is poorer than in DP languages. In particular, Bošković suggests that internal structures of clauses and noun phrases are parallel and proposes that

³² 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 2004, 2007 and references therein), is not possible in English, in contrast to e.g. Japanese. I speculate that this is relevant here.

just like the structure of noun phrase is poorer in NP languages than in DP languages, the structure of clauses is poorer in NP languages than in DP languages. Specifically, Bošković argues that NP languages lack TP; the claim is that the presence of tense morphology on the verb or A-movement of a subject in a language does not necessarily require positing a TP projection (see below and Bošković 2010a for details of the analysis).³³

Among the languages that are argued to lack TP is Japanese, and interestingly enough Japanese allows subject anaphors. Consider the following example:

- (91) John₁-wa [CP[IP zibun-zisin₁-ga Mary-o korosita] to] omotteiru.
 TOP self NOM ACC killed that think
 ‘John₁ thinks that zibun-zisin₁ killed Mary.’

(Aikawa 1994: 2)

Unlike the simplex anaphor *zibun*, the complex reflexive *zibun-zisin* is strictly local and subject oriented (e.g., Aikawa 1993, Katada 1988, 1991):

- (92) John₁-wa [CP[IP Mary₂-ga zibun-zisin*_{1/2}-o hihansita] to] itta.
 TOP NOM self ACC criticized that said
 ‘John₁ said that Mary₂ criticized zibun-zisin*_{1/2}.’

(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., (93)). Also, *zibun-zisin* and *zibun* are

³³ One of Bošković’s (2010a) arguments for the lack of TP in NP languages involves his generalization that the Sequence-of-Tense phenomenon is systematically absent in NP languages.

subject-oriented, whereas *kare-zisin* is not. As shown in (93), the non-subject *Mike* is a possible antecedent for *kare-zisin*, but not for *zibun* or *zibun-zisin*.

- (93) 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 self.’
- 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 self.’
- 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 self.’

(Katada 1991: 289)

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*):³⁴

- (94) a. John_i-ga Bill_j-ni [*zibun*_{i/*j}-ga katta to] itta.
 John_{NOM} Bill_{DAT} self_{NOM} won that said
 ‘John told Bill that self won.’

³⁴ Note again that since *kare-zisin* is not subject-oriented, it can be anteceded either by *John* or *Bill* in (94c).

b. 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 self won.’

c. 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 self won.’

(Katada 1992: 289)

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

(95) 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 self_{*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 (95), for instance, is the *vP* phase *think*; since C without T is not a phase, the reflexive subject of the most embedded clause in (95) is bound by the external argument of the *vP think* (i.e., Peter). That is, although C without T is not a phase, *vP* is a phase, and *kare-zisin* in (95) must be bound in the first phase that dominates it, namely the *vP think*. Consequently, it cannot be bound by the highest subject *John*.

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 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 need for T, as far as temporal interpretation is concerned, since temporal interpretation comes from the verb. Also, in line with the type of research pursued by Higginbotham (1985), who argues that nouns have an open position, Osawa (1999) argues that verbs have an open event position which must be saturated through binding. In TP languages, the event position is bound by T. Osawa argues, on the other hand, that in languages lacking TP the event position is bound by a temporal/aspectual affix on the verb. Fukui (1986) in fact argues that Japanese “tense morphemes” **-ta** (past) and **-ru** (present) are part of a verbal head (see also Whitman (1982)).

At the same time, Bošković argues that A-related structure above vP is complex and that the simple TP-over-vP structure is simply not enough. He thus proposes that only one layer of clausal structure is missing in NP languages (i.e., TP), and that there is enough room in these languages to accommodate A-movement of a subject.

Also, as observed by Bošković, the distribution of Nominative case in Japanese is quite peculiar:

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

b. Bunmeikoku-ga dansei-ga heikinzyumyoo-ga mizikai

Civilized countries_{NOM} male_{NOM} average lifespan_{NOM} short

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

(Kuno 1973)

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 crosslinguistically. 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 (96b), 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.

Another illustration of the non-standard behavior of *-ga* is the well-known operation of *ga/no* conversion. In (97), the subject of what should be a finite clause fails to get *-ga*, and receives genitive from a higher noun:

(97) Taroo-ga /-no itta tokoro

Taroo_{NOM/GEN} go_{PAST} place

‘The place where Taroo went.’

The above discussion shows that Japanese *-ga* clearly does not behave like regular structural nominative case. Given that there are article-less languages where traditional nominative does not exhibit such exceptional behavior Bošković argues that nominative case in such languages is assigned by default because T is absent. According to this assumption, nominative case in article-less languages will either exhibit exceptional behavior (like Japanese *-ga*) or it will function as default case.

Tanaka (2002) and Nemoto (1991, 1993) argue that A-movement across CP boundaries is possible in Japanese. As observed by Bošković (2010a), this provides strong evidence that the CPs in question are not phases. A-movement out of a CP is normally impossible since it involves Improper Movement (i.e., A-A'-A movement), given that, due to the PIC, such movement must proceed through the Spec of the CP phase. This problem, however, does not arise if the CP is not a phase (i.e., if the CP does not co-occur with TP), since in this case the offending step (movement via SpecCP) can be skipped.

Let us now consider more closely the relevant Japanese constructions. Tanaka's examples involve raising to object out of 'finite' CPs. This is illustrated in (98). (99) shows that, in contrast to the nominative subject, the accusative subject moves into the matrix clause; i.e., the matrix adverb may be placed after the accusative complement subject (99b), but not after the nominative complement subject (99a).

(98) a. John-ga [Bill-ga baka-da-to] omot-teiru.

John_{NOM} [Bill_{NOM} fool_{COP/COMP}] think_{PROG}

'John thinks that Bill is a fool.'

b. John-ga Bill-o_i [t_i baka-da-to] omot-teiru.

John_{NOM} Bill_{ACCi} [t_i fool_{COP/COMP}] think_{PROG}

‘John thinks of Bill as a fool.’

(99) a. *John-ga [Bill-ga orokanimo tensai-da-to] omot-teiru.

John_{NOM} [Bill_{NOM} stupidly genius_{COP-COMP}] think_{PROG}

‘Stupidly, John thinks that Bill is a genius.’

b. John-ga Bill-o_i orokanimo [t_i tensai-da-to] omot-teiru.

John_{NOM} Bill_{ACCi} stupidly [t_i genius_{COP/COMP}] think_{PROG}

‘John thinks of Bill stupidly as a genius.’

(100), (101), and (102) argue against an alternative, control analysis. (100) illustrates the well-known fact that the Proper Binding Condition holds for movement in Japanese (e.g., Saito 1992). That is, traces must be bound, but the trace t_i in (100) fails to be c-commanded by the scrambled object.

(100) *[[Bill-ga t_i katta-to]_j [sono-hon-o_i [John-ga t_j itta]]].

[[Bill_{NOM} t_i bought_{COMP}]_j [the book_{ACCi} [John_{NOM} t_j said]]]

‘[That Bill bought t_i]_j, the book_i, John said t_j.’

That Proper Binding Condition is irrelevant for control is shown in (101).

(101) [PRO_i gakko-ni]_j John-ga Bill-ni_i t_j meizita.

[PRO_i school-to in-order-to]_j John_{NOM} Bill_{DATi} t_j ordered

‘John ordered Bill to go to school.’

The fact that (102) patterns with (100) in (un)grammaticality rather than with (101) then indicates that the construction under consideration involves movement (into the matrix clause) rather than control.

(102) *[_{t_i} baka-da-to]_j John-ga Bill-o_i t_j omot-teiru.

[_{t_i} fool_{COP/COMP}]_j John_{NOM} Bill_{ACC_i} t_j think_{PROG}

‘[_{t_i} as a fool]_j, John thinks of Bill_i t_j.’

(103b) shows that raising to object can be followed by A-scrambling to the sentence initial position of the higher clause. That is, in (103b) what used to be the embedded clause subject binds an anaphor in the matrix subject.

(103) a. ??Otagaii-no sensei-ga karera-o_i [_{t_i} baka-da-to] omot-teiru.

each other_i's teacher_{NOM} them_{ACC_i} [_{t_i} fool_{COP/COMP}] think_{PROG}

‘Each other_i’s teachers think of them_i as fools.’

b. Karera_i-o otagai_i-no sensei-ga t_i [_{t_i} baka-da-to] omot-teiru.

Them_{ACC_i} each other_i's teacher_{NOM} t_i [_{t_i} fool_{COP/COMP}] think_{PROG}

‘Them_i, each other_i’s teachers think of t_i as fools.’

In (103b) *karera-o* ‘them’ first undergoes movement to the matrix SpecvP and then A-scrambling. Given the ban on Improper Movement, the first step must involve A-movement.³⁵

³⁵ Direct A-scrambling out of the clauses in question is, however, not possible (see Takahashi 2011). As discussed in Bošković (2010a), this can be explained by assuming that A-scrambling in Japanese is driven

Finally, (104) illustrates that raising to object can take place even out of *+wh* clauses, which are uncontroversially CPs.

(104) John-ga Bill-o baka-ka-to kangaeta.

John_{NOM} Bill_{ACC} fool_{Q/COMP} consider

‘John wonders if Bill was a fool.’

Nemoto’s (1993) examples involve A-movement out of control CPs.³⁶

(105) a. *Joe-ga otagai_i-no yuujin-ni [PRO Michael to Janet_i-o hihansu-ru

Joe_{NOM} each other_{GEN} friends_{DAT} Michael and Janet_{ACC} criticize_{PRES}

yoo(ni)] tanon-da.

C ask_{PAST}

‘lit. Joe asked each other’s friends to criticize Michael and Janet.’

b. Michael to Janet_i-o Joe-ga otagai_i-no yuujin-ni

Michael and Janet_{ACC} Joe_{NOM} each other_{GEN} friends_{DAT}

[PRO t_i hihansu-ru yoo(ni)] tanon-da.

criticize_{PRES} C ask_{PAST}

‘lit. Michael and Janet, Joe asked each other’s friends to criticize.’

(Nemoto 1993: 44)

by a feature that the CPs in question also have. Then, A-scrambling out of these CPs is ruled on completely independent grounds (i.e., via “Attract Closest”).

³⁶ See Nakau (1973) and Uchibori (2000) for arguments that *yooni* is a complementizer.

(105a) is a case of a Condition A violation, since the anaphor is free. (105b) shows that an element scrambled from the complement clause can bind the anaphor, hence the movement in question must be A-movement. Nemoto (1991) assumes that A-movement cannot skip CP/TP pairs (or CP/IP pairs at the time), following Chomsky (1986). Following Nemoto's arguments and analysis, Bošković argues that since CP is clearly present in (105) it must be that the embedded clause lacks TP, which is suggestive of a rather strong argument for the no-TP analysis.

These facts fit well with the proposal advanced in this section, namely, that CPs are not phases without TPs. If Japanese indeed lacks TP (or if TP in this language is in some sense weak) then it is not surprising that this language allows both A-movement out of CPs and reflexives in the subject position. On the analysis presented here these two phenomena receive a unified account – it is essentially the lack of TP in Japanese (coupled with a set of independently motivated assumptions) that generates this state of affairs. A non-standard behavior of nominative case marker *-ga*, discussed above, further confirms that it is the lack of TP in Japanese that underlies the phenomena in question.

The situation in Korean is in this respect very similar to the one found in Japanese. For instance, nominative case in Korean does not behave like regular TP-assigned structural case in DP languages. Just like Japanese, Korean has multiple nominative constructions where non- subjects also receive nominative case:

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

Yesterday-from-NOM weather-NOM good.become

'From yesterday the weather became good.'

(Kang, 2011)

Most importantly, Korean also allows anaphors in the subject position. Similarly to Japanese, Korean also has both local and long distance reflexives. As shown in (107), *caki* is a long distance anaphor, while *caki-casin* is a local anaphor:

(107) 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 [Yenghi_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 the reflexive *caki casin* in (107b) 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 (just like Japanese *zibun-zisin* and *kare-zisin* discussed above):

(108) John-un caki casin-i chencayla-ko mitnunnta.

John-TOP self-NOM genius-be-comp believe

‘John believes that caki casin is a genius.’

However, *caki casin* can only be bound by an argument in the next clause up. Any binding beyond the next clause up is not possible (thus, the only possible antecedent for the anaphor in (109) is *Mary*):

(109) John_i-un [Mary_j-ka [caki-casin*_{i/j}-i ttokttokha-ta]-ko sayngkakha-n-ta]-ko

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

malha-ess-ta.

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).

Another relevant language in this respect is Chinese. The issue of reflexives in Mandarin Chinese has been extensively discussed in the literature; it is a well-known fact that that this language also has both local and long distance anaphors. As illustrated in (110)-(111), *ziji* is a long distance anaphor, while *ta ziji* is bound locally.

(110) Zhangsan_i renwei Lisi_j zhidao Wangwu_k xihuan ziji_{i/j/k}.

Zhangsan think Lisi know Wangwu like self

‘Zhangsan thinks Lisi knows Wangwu likes him/himself.’

(Cole and Sung 1994:355)

(111) Zhangsan_i renwei Lisi_j zhidao Wangwu_k xihuan ta ziji_{i*/j/k}.

Zhangsan think Lisi know Wangwu like him self

‘Zhangsan thinks Lisi knows Wangwu likes himself.’

(Cole and Sung 1994:357)

Again, even though *ta ziji* is a local anaphor, it may occupy the subject position of an embedded clause:

(112) Xiaoming_i xiangxin ta ziji_i neng kaoguo.

Xiaoming believe himself can pass the exam

‘Xiaoming believes that he himself can pass the exam.’

(Sung 1990: 71)

However, as pointed out by Sung (1990), *ta ziji* in cases like (112) 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).

It has been argued by a number of authors, at the same time, that Mandarin Chinese lacks TP (e.g., Hu *et al.* 2001, Lin 2002, 2003, 2006, 2010, Smith and Erbaugh 2005, Bošković 2010a, among 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 past 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. Also, Hu *et al.* (2001) argue against the finite/non-finite distinction in Mandarin Chinese.

Woolford (1999) notes that Thai and Vietnamese allow reflexive subjects:

(113) Sǒmmǎay_i khít wâa tuaʔeeŋ_i ca dâŋ pay.

Somai think that self FUT get go

‘Somai_i thinks that he(self)_i will get to go.’

Thai (Woolford 1999: 263)

(114) Anh-ấŷ_i e rǎng mìnĥ_i cŭng khōng khỏi tội.

He fear that self also not avoid sin

‘He_i is afraid that he(self)_i will not avoid punishment.’

Vietnamese (Woolford 1999: 262)

Similarly to Korean and Japanese (all languages that lack definite articles and have subject anaphors and possessive reflexives) Thai has the so-called “double subject” construction.

(115) Chán tháaw too.

I foot big

‘I have big feet.’

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, in particular, 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. Tamil is a Dravidian language with no definite articles (Schiffman 1999: 36). It has a reflexive pronoun *taan* whose oblique form *tan-* can function as a genitive/possessive form (Schiffman 1999: 121). As discussed in Woolford (1999), Tamil allows subject anaphors, with an antecedent in higher sentences.

(116) Taan varrataa

Murukeecan connaaru.

self come_(PRES/NOMINALIZING SUFFIX/ADVERBIALIZING SUFFIX) Murugesan say_(PAST/3SG/HONORIFIC)

‘Murugesan said he (himself) was coming.’

(Woolford 1999: 269)

At the same time, Tamil also 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 (117a), or with an overt non-coreferential subject in the nominative case, as in (117b).

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

PRO poori fry_{INF} raman_{NOM} flour_{ACC} buy-_{PST/3MSG}

‘Raman bought flour to fry pooris’

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

vasu_{NOM} poori_{ACC} fry_{INF} raman_{NOM} flour_{ACC} buy-_{PST/3MSG}

‘Raman bought flour for Vasu to fry pooris’

Also, Sarma (1999) observes that infinitival complements in Tamil may either be subject controlled or take an overt NP as the external argument.

(118) raaman-ukku [_{TP} PRO siitaav-ai kaappaatt-a] veND-um.

Rama-D Sita-A save-inf want-3sn

‘Rama wants to save Sita.’

(119) raaman-ukku [_{TP} hanumaan siitaav-ai kaappaatt-a] veND-um.

Rama-D Hanuman-N Sita-A save-inf want-3sm

‘Rama wants Hanuman to save Sita.’

(Sarma, 1999: 23)

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 (2010a), that nominative case in Tamil (just like in Japanese and Korean) is not a structural case assigned by T, and that this language lacks standard TP. 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).

Thus the generalization that emerges is that languages that allow subject anaphors/reflexives lack definiteness marking (i.e., DP) and at the same time exhibit “exceptional” behavior with respect to subject and/or tense licensing. The evidence presented here strongly suggests that these languages may in fact lack TP, and that for this reason CP in these languages is not a phase.³⁷

There is, however, another property which all the languages considered in this section have in common; namely, with the exception of Tamil (to which I return below),

³⁷ This should be understood as a one way correlation; i.e., there might be TP-less languages without subject anaphors (e.g., even though it might lack TP (as argued by Paunović 2001 and Bošković 2010a), SC does not allow subject anaphors). I leave open here what factors other than the absence of TP may block the availability of subject anaphors in a language.

they all lack agreement. It has been observed by a variety of authors (Rizzi 1990, Woolford 1999, Haegeman 2004, Tucker 2010 etc.) that anaphors are cross-linguistically incompatible with syntactic positions which trigger agreement (both subject and object agreement). This has been known as the *Anaphor Agreement Effect* (AAE). Tucker (2010), for instance, presents a phase-based approach to agreement and binding and argues that anaphors are syntactic elements with interpretable unvalued ϕ -features. The claim is basically that anaphors do not possess enough ϕ -feature values to trigger verbal agreement, and must gain values for their ϕ -features in the course of the derivation.

Focusing on the subject position, it can be argued, however, that the AAE is an accident which follows from the lack of TP. In Chomsky's (2008) system TP lacks ϕ -features, and inherits them from CP. It is then possible that subject anaphors can create an agreement problem (i.e., the AAE effect) only in TP languages, but not in languages where subjects are located in the Spec of a phrase with no ϕ -features, or with ϕ -features which are not inherited from the C phase head. In other words, the agreement issue may be related to the presence/lack of TP.

There are, however, some non-trivial issues with the AAE generalization. Tamil, for instance, poses a serious problem for this generalization. Unlike Japanese or Korean, Tamil has subject agreement and it has been claimed in the literature (i.e., Kayne 1994) that Tamil, and more generally Dravidian languages, are problematic for the AAE because they also allow subject anaphors. Woolford (1999), however, argues that the problem is illusory, since in Dravidian languages only finite verbs agree, and when a reflexive subject occurs in an embedded clause, the embedded verb is nonfinite and there is no agreement with the subject anaphor (as illustrated in (116) repeated below):

(116) *Taan varrataa*

Murukeecan connaaru.

self come_(PRES/NOMINALIZING SUFFIX/ADVERBIALIZING SUFFIX) *Murugesan say*_(PAST/3SG/HONORIFIC)

‘Murugesan said he (himself) was coming.’

(Woolford 1999: 269)

Although Tamil sentences are mostly limited to one finite verb, Woolford notes that a reported-speech construction allows a finite embedded clause with subject agreement. The construction in question does allow an anaphor in subject position, but the agreement in the embedded clause of that construction is actually expressed on the verb as first person singular.

However, Selvanathan and Kim (2008) show, contra Woolford (1999), that the Tamil reflexive *taan* can in fact trigger regular (third person) agreement on the verb:

(120) a. [*taan varugir-aan /*-aal enru*] *Murukeecan conn-aan*

self come-_{3SGMASC/3SGFEM} comp *Murugesan say-3SGMASC*

‘Murugesan said he is coming.’

b. [*taan varugir-aal/*-aan enru*] *Mala conn-aal*

self come-_{3SGFEM/3SGMASC} comp *Mala say-3SGFEM*

‘Mala said she is coming.’

(Selvanathan and Kim 2008: 15)

Although it seriously challenge the AAE generalization, Tamil is not problematic for the approach advanced in this section, since I have shown above that there is a reasonable

ground to believe that Tamil lacks TP. That is, I claim that despite the fact that they trigger agreement on the verb, subject anaphors are possible in Tamil because this language lacks TP.³⁸

There are other issues with the AAE generalization. For instance, what kind of agreement is relevant for the AAE: abstract, morphological or some other kind? Presumably, it is morphological, but how then should we treat languages like English, which have extremely limited agreement. Furthermore, notice that anaphors can trigger agreement on adjectives:

(121) a. Video sam sebe pijanog.

SC

Seen am self_{ACC} drunk_{ACC/SG/MASC}

‘I saw myself drunk.’

³⁸ Tucker (2010) suggests that a possible explanation for why the Tamil reflexive *taan* is not subject to the AAE is that it sometimes behaves like a long distance anaphor. That is, although it displays the familiar local binding properties, *taan* can also function as a long distance anaphor. Tucker argues that since under his analysis long distance anaphors are not subsumed under the AAE, *taan* is not really a counterexample to the AAE generalization.

As acknowledged by Tucker, however, the problem is that cross-linguistically long distance anaphors also fail to trigger agreement. For instance, although it is quite clearly a long distance anaphor the Icelandic reflexive *sig* is ungrammatical when it appears in the nominative case position, which controls agreement on the verb; anaphors in Icelandic can occur in the subject position only if they are assigned inherent case from a verb and do not trigger agreement (e.g., Rizzi 1990). In fact, Icelandic was one of the languages which was originally used to motivate the AAE generalization. The Icelandic *sig*, however, is a true long distance anaphor, whose antecedent can be arbitrarily far away:

- (i) Jón_i segir [að María telji [að Haraldur vilji [að Billi heimsæki sig_i]]].
 John says that Mary believes that Harold wants that Bill visits self

Thráinsson (1991: 55)

If long distance anaphors are not subject to the AAE, as suggested by Tucker, then we would expect the Icelandic *sig* to be able to trigger agreement just like the Tamil *taan*, contrary to fact.

On the other hand, as noted in Thráinsson (2007), among many others, long distance binding of *sig* in finite clauses is restricted to subjunctive clauses, which might mean that *sig* is not really a true long distance anaphor. This again is compatible with the analysis presented here since it is rather often assumed that subjunctives in general involve deficient tense, or lack tense completely. Finally, the absence of agreeing, nominative anaphors in Icelandic could also be treated as a lexical gap.

b. Svaki student_i na ovom univerzitetu je pronašao
 Every_{NOM/SG/MASC} student_{NOM/SG/MASC} on this university is found
 jednog novog sebe_i.
 one_{ACC/SG/MASC} new_{ACC/SG/MASC} self_{ACC}
 ‘Every student at this university has found a new self.’

In (121a) the secondary adjective *pijanog* ‘drunk’ agrees in case with the accusative object reflexive, not with the nominative subject. Similarly, *jednog* ‘one’ and *novog* ‘new’ in (121b) show agreement in case with the accusative object reflexive, which is bound by the nominative subject quantifier.

Also, there are languages like Swedish, which do not allow subject anaphors, even though they 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.

To summarize, my goal in this subsection has been to draw a close parallel between C and D. I have explored the possibility that the phasehood of CP and DP is partially determined by the character of the phrase they immediately dominate (i.e., TP and PossP, respectively). In particular, I have proposed that CPs and DPs work as phases only if they form a complex with TP and PossP, respectively. I have argued that such an analysis can explain the binding facts introduced in the previous sections, and at the same time shed new light on the distribution of subject anaphors. Since CP is not a phase and a binding domain without TP, the availability of subject anaphors in a 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 which permit anaphors in the subject position can be (and often are) independently argued to lack TP.

3.5 Some Further Implications

In this chapter I have contemplated a theory on which DPs, but crucially not NPs, correspond to phases and I have given a number of empirical arguments to support it. In this section I want to consider more closely a conceptual side of this claim and discuss its implications in the context of the Phase Theory in general.

Over the years, a variety of different types of arguments for the idea that CPs and ν 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 ν 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 ν Ps are “propositional”:

At SEM, ν [*]P and CP (but not TP) are propositional constructions: ν [*]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-hood of a phrase in the nominal domain is crucially dependent on the availability of syntactic representation of definiteness. In other words, I suggest that syntactically represented definiteness, which is reflected in the presence of a definite article/DP in a language, is required for TNP phase-hood;³⁹ it 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 like SC have to rely mainly on contextual information to determine definiteness/indefiniteness of a noun phrase. Thus, SC (122) is ambiguous with respect to (in)definiteness:

(122) Pazi! Mačka je ušla u kuhinju.

 Watch out Cat is entered in kitchen

 ‘Watch out. The/a cat entered the kitchen.’

As I discuss in Chapter 5, ambiguities of this type are standardly explained via type-shifting operations (e.g., Partee 1987, Chierchia 1998). Chierchia’s (1998) proposes that nominals in languages like SC can freely shift from pred to arg, i.e., from <e> to <e,t>, depending on a variety of factors, including contextual information. He also suggests that the type shifting of this sort is blocked in languages which have an overt way of achieving the same effects (like English). In very general terms, the presence of the definite article in English blocks the type of shifting operations that are in general available in languages without definite articles.

³⁹ Traditional noun phrase; I use this term here to avoid committing myself to the actual categorial status (DP/NP) of the phrase in question.

The two language types thus clearly encode (in)definiteness of noun phrases via two profoundly different strategies; while in languages like English (in)definiteness is represented in the syntax, in languages like SC it obviously belongs to a post-syntactic (semantic/pragmatic) component. Due to the lack of this syntactic representation of definiteness, however, SC TNP is syntactically not “complete” or “saturated” in the same sense English TNP is, and therefore, I suggest, does not qualify as a phase. In other words, what is relevant here is that certain aspects of meaning which are syntactically encoded in English TNPs are absent at the syntactic level in SC, and have to be achieved at the post-syntactic level.

We can argue in a similar vein that CP without TP is not a phase, since it is not “complete”. If CP as a phase is the minimal construction that among other things includes tense, then it shouldn’t be implausible to assume that CP which doesn’t include tense is not a phase. As already discussed, tense morphology in Mandarin Chinese is not grammaticalized, just like definiteness in SC (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.

Thus, the theory that I have argued for so far is completely compatible with the general understanding of what phases are. If phases are fully saturated semantic entities, i.e. thematically complete predicative categories (ν Ps and DPs with all θ -roles assigned) and fully typed clauses (CPs marked for force, tense and mood) it makes perfect sense to argue that DP without Poss is not a phase and that CP without TP is not a phase. The

novel proposal that I am making, however, is that (the syntactic representation of) (in)definiteness plays the crucial role in determining phase-hood of the nominal domain. Specifically, on the theory that I argue for, TNPs are phases in DP languages (provided that they are paired with PossP) but not in NP languages.

3.6 Summary

The main claim of this chapter was that binding possibilities of reflexive pronouns are sensitive to the presence/absence of DP and that the conditions on binding of reflexives apply cyclically on the basis of information contained at the level of the syntactic phase. I have proposed that in addition to CPs and *v*Ps, DPs also qualify as phases (e.g., Adger 2003, Bošković 2005, 2008a, Svenonius 2004, among others) and therefore define binding domains.

In the first part of the chapter I have presented a set of curious binding facts from SC originally introduced by Zlatić (1997a/b), who proposes that in order to fully explain binding properties of SC reflexives a distinction has to be made between the so-called ‘process’ and ‘non-process’ nominals. I have argued that the facts in question all fall out easily on the assumption that ‘non-process’ nominals are bare NPs, while ‘process’ nouns are nominalized *v*Ps. I have shown that the proposed analysis not only accounts for the SC data, but also explains the binding contrast between SC and languages with DP.

In the second part of the chapter I have examined the distribution of possessive reflexives in a variety of languages, focusing on Reuland’s (2007, 2011) observation that the availability of reflexive possessive forms in a language correlates with how

definiteness marking is encoded in that language: reflexive possessives are possible only in languages which lack definiteness marking, or which encode definiteness postnominally, while they are absent in languages which have prenominal (article-like) definiteness marking. I presented two alternative analyses of this generalization; the central assumption underlying both of them was that DP is not a universal projection.

Finally, in the last part of this chapter I have explored the possibility that the phase-hood of CP and DP is partially determined by the character of the phrase they immediately dominate. I have suggested that CPs and DPs behave like bona fide phases only if they form a complex with TP and PossP, respectively. I have argued that, among other things, this approach illuminates the nature of principles behind the cross-linguistic distribution of subject anaphors. In particular, I have suggested that since CP is not a phase, and not a binding domain when it doesn't immediately dominate TP, only languages without TP may allow anaphors in the subject position of CP clauses. I have also situated my proposals within a broader context of the phase theory, arguing that the idea that the syntactic representation of (in)definiteness is crucial in determining phasehood of nominal categories is completely compatible with our general understanding of what phases are. Specifically, I have proposed that the syntactic representation of definiteness makes DP, in contrast to NP, a phase.

Appendix: Cross-linguistic Limits of Reuland's Generalization

I have conducted a small survey to test the limits of Reuland's (2011) generalization and briefly summarize the results in this section. The overall picture is that this generalization holds, but there are a number of cases in which it holds vacuously. That is, in order to check how far Reuland's observations truly go, one needs to focus on languages which have reflexive pronouns to begin with. And there are many languages which simply lack reflexive pronouns; whether or not such languages encode definiteness is irrelevant for our purposes. For instance, Kwaza, given below, does not mark definiteness and has no reflexive pronouns.

- (1) van der Voort, Hein. 1994. *A Grammar of Kwaza*. Mouton de Gruyter, Berlin, New York.

Definiteness marking: no

Reflexive pronouns: no

Reflexive possessive pronoun: no

Also, there is no distinct reflexive pronoun in the Semitic languages, in which the usual suffixed pronoun is used to refer to the subject of the sentence.

As far as relatively well-studied languages are concerned I offer below a more complete list which is completely in line with Reuland's observations:⁴⁰

⁴⁰ I mark with "Reuland" languages that are given in Reuland (2007, 2011)

(2) I Languages without Reflexive Possessives:

English	(prenominal definite article)	Reuland
Dutch	(prenominal definite article)	Reuland
Afrikaans	(prenominal definite article)	
German	(prenominal definite article)	Reuland
Spanish	(prenominal definite article)	Reuland
Italian	(prenominal definite article)	Reuland
Portuguese	(prenominal definite article)	
Modern Greek	(prenominal definite article)	Reuland

II Languages with Reflexive Possessives:

A	Icelandic	(postnominal definite clitic/affix)	Reuland
	Faroese	(postnominal definite clitic/affix)	
	Swedish	(postnominal definite clitic/affix)	
	Danish	(postnominal definite clitic/affix)	
	Norwegian	(postnominal definite clitic/affix)	
	Bulgarian	(postnominal definite clitic/affix)	Reuland
	Macedonian	(postnominal definite clitic/affix)	
	Romanian	(postnominal definite clitic/affix)	Reuland
B	Proto-Slavonic	(no definiteness marking)	
	Old Church Slavonic	(no definiteness marking)	
	Polish	(no definiteness marking)	
	Russian	(no definiteness marking)	Reuland
	Serbo-Croat	(no definiteness marking)	
	Slovenian	(no definiteness marking)	
	Czech	(no definiteness marking)	
	Slovak	(no definiteness marking)	
	Sorbian	(no definiteness marking)	
	Belorussian	(no definiteness marking)	
	Ukranian	(no definiteness marking)	
	Latin	(no definiteness marking)	
	Japanese	(no definiteness marking)	
	Turkish	(no definiteness marking)	
	Chinese	(no definiteness marking)	
	Korean	(no definiteness marking)	
	Thai	(no definiteness marking)	
Persian	(no definiteness marking)		
Tamil	(no definiteness marking)		
Kannada	(no definiteness marking)		

As for some of less well-studied languages that I have investigated, Lezgian falls into (2)IIB. Maori, on the other hand, has definite pronominal articles, but lacks reflexive pronouns in general:

(3) Buer, Winifred. 1993. *Maori*. Routledge London and New York.

Definiteness marking: yes – pronominal article

Reflexive pronouns: no

Reflexive possessive pronoun: no

There are also languages which do not have reflexive pronouns but use various kinds of nouns for reflexive purpose. Thus, in Semelai (Kruspe, Nicole. 2004. *A Grammar of Semelai*. Cambridge University Press) ‘dri?’ 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 *kbə?* ‘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 own dog’ is good.

The following languages pattern with the list in (2)IIB (e.g., SC and Latin) – they do not mark definiteness, and at the same time they clearly have reflexive pronouns and reflexive possessives.

(4) a. Sakel, Jeanette. 2004. *A Grammar of Mosetén*. Mouton de Gruyter, Berlin, New York.

Definiteness marking: no

Reflexive pronouns: yes

Reflexive possessive pronoun: yes

b. Wali, Kashi and Omkar N. Koul. 1997. *Kashmiri: A Cognitive-Descriptive Grammar*. Routledge London and New York.

Definiteness marking: no

Reflexive pronouns: yes

Reflexive possessive pronoun: yes

c. Asher R.E. and T.C. Kumari. 1997. *Malayalam*. Routledge London and New York.

Definiteness marking: no

Reflexive pronouns: yes

Reflexive possessive pronoun: yes

d. Genetti, Carol. 2007. *A Grammar of Dolakha Newar*. Mouton de Gruyter, Berlin, New York.

Definiteness marking: no

Reflexive pronouns: yes

Reflexive possessive pronoun: yes

Misantla Totonac is similar to English - it has prenominal definite article (which optionally incorporates), and reflexive pronouns, but no reflexive possessives.

(5) MacKay, Carolyn J. 1999. *A Grammar of Misantra Totonac*. The University of Utah Press. Salt Lake City.

Definiteness marking: yes – pronominal definite article (optionally incorporates).

Reflexive pronouns: yes

Reflexive possessive pronoun: no

As already discussed, Koromfe patterns with Scandinavian languages. It has postnominal definiteness marking, and both reflexive objects and reflexive possessives.

(6) Rennison, John R. 1997. *Koromfe*. Routledge London and New York.

Definiteness marking: yes - postnominal

Reflexive pronouns: yes

Reflexive possessive pronoun: yes

This is summarized in the list below:

(7) **I Languages without Reflexive Possessives:**

Misantra Totonac (pronominal definite article)

II Languages with Reflexive Possessives:

A Koromfe (postnominal definite article)

B Lezgian (no definiteness marking)

Mosetén (no definiteness marking)

Kashmiri (no definiteness marking)

Malayalam (no definiteness marking)

Dolakha Newar (no definiteness marking)

Apart from a number of uninteresting cases, I haven't found a single direct counterexample to Reuland's generalization so far. By clear counterexamples I primarily mean hypothetical languages which would mark definiteness preominally and allow reflexive possessives at the same time. As already pointed out, the theory I have presented in this chapter does not predict that languages that lack definiteness marking must have reflexive possessives, since the morpho-syntax of possessive can clearly be constrained by a variety of factors other than definiteness.

CHAPTER 4

PRONOUNS, INTENSIFIERS, AND DP/NP

4.1 Introduction

In the previous two chapters I have argued mainly on the basis of binding data that SC does not project DP. In this chapter I turn to some empirical arguments for the existence of DP in SC. In particular, this chapter's main goal is to reanalyze probably the most compelling argument for DP in SC given by Progovac (1998), which is based on certain asymmetries in the distribution of nouns and pronouns in this language. Consider the following examples:

- | | |
|---|--|
| (1) a. I samu Mariju to nervira.
And alone Mary that irritates
'That irritates Mary herself.' | c. I nju samu to nervira.
And her alone that irritates
'That irritates her herself.' |
| b. ?*I Mariju samu to nervira. | d. ?*I samu nju to nervira. |

In (1) the pronoun necessarily precedes the adjective *sam*, while the noun obligatorily follows it. In a nutshell, Progovac argues that the position occupied by the pronoun in (1) is in fact D, and that these facts support the existence of DP in SC.

In this chapter, I argue that on close scrutiny, the facts in question not only do not challenge, but in fact support the lack of DP in SC and that they can be directly deduced from other, independently motivated properties of the SC grammar. The central empirical motivation for the analysis is found in the observation that the relevant asymmetry occurs in full paradigm only with one modifier, a typical intensifier. In a nutshell, I propose that it is movement of clitic pronouns to the phrase projected by this intensifying adjective that gives rise to the contrast in the distributional patterns of nouns and pronouns. In the course of this investigation, I address issues pertaining to general properties of two types of pronouns in SC, as well as the syntax and semantics of intensifiers and focus. More specifically, I will argue that in constructions associated with focus what appears to be a strong pronoun is in fact very often a “camouflaged” clitic/weak pronoun. That is, I will provide evidence which shows that due to their incompatibility with prosodic properties of focus, clitics/weak pronouns are pronounced as strong in the structural positions directly associated with focus. In the course of the investigation I also discuss the so called “Montalbetti effect” of pronouns, which concerns (in)ability of pronouns to function as bound variables, and its relationship with focus.

The chapter is organized as follows: In section 4.2 I introduce the facts which constitute the main point of our interest here and then briefly present Progovac’ (1998) original, “null DP” analysis, which is based on Longobardi (1994). In the same section I lay out several problems for the DP approach. In section 4.3 I offer an alternative account whose core assumption is that SC lacks DP. I argue that the central role in explaining the noun/pronoun asymmetry has to be attributed to the intensifying nature of the sole modifier with which the asymmetry occurs. I show that this asymmetry comes about as a

consequence of clitic movement of pronouns. By recognizing these as the crucial aspects of the problem I argue that the proposed analysis successfully captures all the facts, without missing any generalizations. In this section I also discuss the nature of the intensifying adjective in question and examine two types of pronouns in SC and their relation to focus. In section 4.4 I discuss certain Polish facts relevant for the proposed analysis. Section 4.5 concludes the chapter. In the Appendix I discuss the distinction between strong and deficient pronominal forms in the context of Montalbetti (1984).

4.2 The Noun/Pronoun Asymmetry in SC

4.2.1 The DP Analysis - Progovac (1998)

One of the most compelling arguments for the existence of null D in SC is given by Progovac (1998). Following Longobardi (1994), Progovac observes that those adjectives that can appear with pronouns in SC must necessarily follow pronouns, in contrast to nouns, which follow adjectives. The basic paradigm is illustrated in (1), repeated below (Progovac, 1998: 167):

- | | | |
|-----|------------------------------------|-------------------------------|
| (1) | a. I samu Mariju to nervira. | c. I nju samu to nervira. |
| | And alone Mary that irritates | And her alone that irritates |
| | ‘That irritates Mary herself.’ | ‘That irritates her herself.’ |
| | b. ?*I Mariju samu to nervira. | d. ?*I samu nju to nervira. |

The contrast exhibited in (1) is significant to the extent that it exists in Italian, a language with overt articles. Longobardi (1994), following Postal (1969), argues that pronouns in Italian underlyingly occupy the D position, and that nouns are generated in N positions, and may, in some languages, raise to D. Importantly, this movement can only take place in the absence of articles, which suggests that the D position is the landing site. This is shown in (2) ((2a-c) are originally from Longobardi 1994: 625-626, and (2d-f) from Progovac 1998: 168):

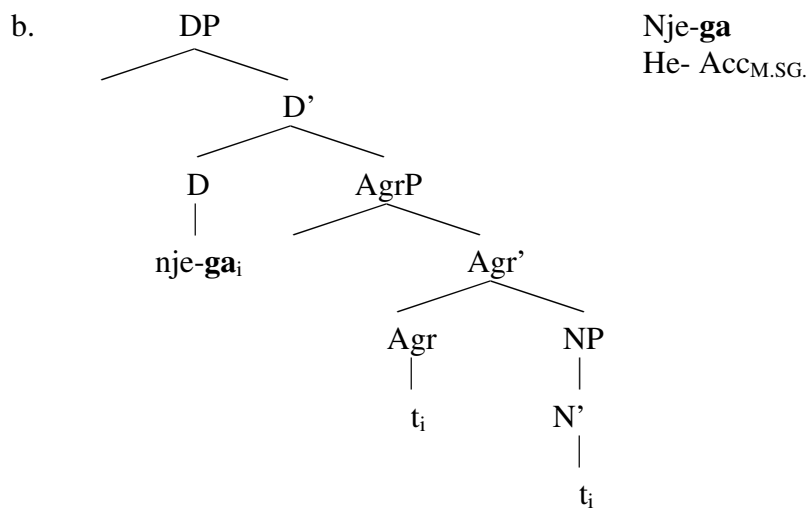
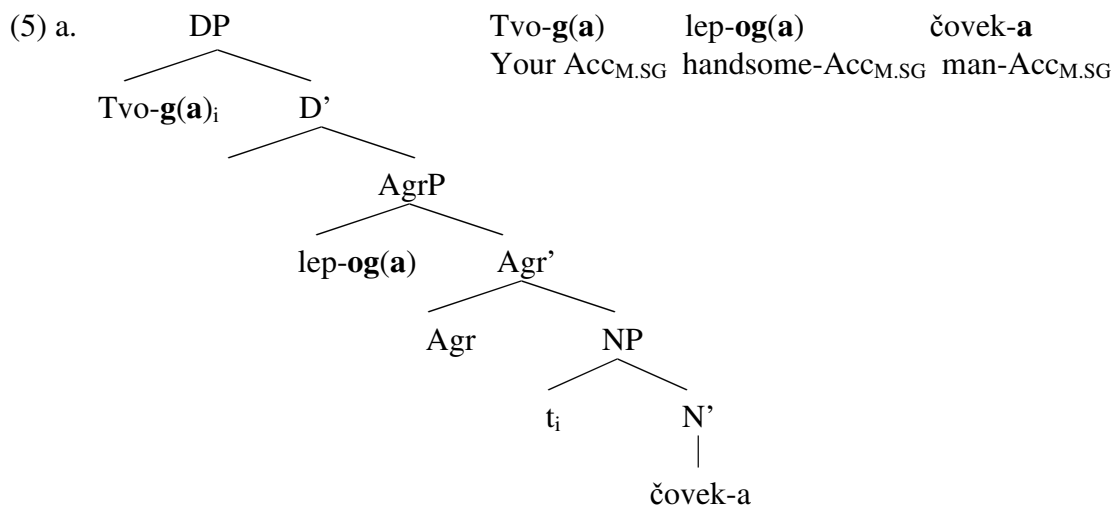
- (2)
- | | |
|-----------------------------------|---------------------------------|
| a. La sola Maria si è presentata. | d. *La sola lei si è presentata |
| The only Maria showed up | The only she showed up |
| ‘Only Mary showed up.’ | |
| b. *Sola Maria si è presentata. | e. Lei sola si è presentata. |
| | ‘Only she showed up.’ |
| c. Maria sola si è presentata. | f. *Sola lei si è presentata. |
| Maria only(fem) showed up | |

Briefly, the observation is that if the article is missing, the proper name has to precede the adjective, suggesting that it moves to D, a position in which the pronoun is generated. This is mainly based on the meaning that the Italian adjective *solo* has in these constructions. This adjective has two distinguishable readings: it can mean either ‘only, unique’ or ‘alone’. The claim is that when used with a proper name introduced by an article, the adjective *solo* can have the ‘only, unique’ meaning only if it occurs prenominal – a postnominal occurrence is marginal and obligatorily displays the ‘alone’ reading:

regardless of the position of the modified noun/pronoun and under the assumption that it occupies a fixed syntactic position, Progovac concludes that it must be the case that pronouns occupy a structurally higher position than nouns. Progovac claims that this position is D and the reasoning behind it is illustrated by the following quote: “Since the evidence of such asymmetries is extremely sparse in the data, the children presumably cannot rely on them to conclude that there is a DP in SC. Since there are also no articles in SC, children have virtually no evidence of the existence of a DP. It must be then that the projection of DPs is a universal property, independent of the presence of the lexical item which solely occupies the head of the projection” (Progovac, 1998: 165).

In order to account for the differences between SC and Italian (e.g., the fact that in SC proper names pattern with common nouns in that they uniformly follow the adjective) Progovac makes two additional assumptions. First, SC is taken to be similar to Germanic in that the referential feature on D in SC is weak. For this reason the N raising does not occur in SC and the difference between SC and Italian follows: adjectives will necessarily precede nouns in SC, but can either precede or follow proper names in Italian, depending on the presence vs. absence of the overt article. Second, Progovac maintains that pronouns in SC are, in fact, not generated in D as in Italian, but that they actually move from N to D. The argument for this is mainly based on certain morphological properties of SC pronouns and adjectives, since both adjectives and pronouns in SC show overt morphology not present in the nouns. According to Progovac, this morphology is acquired/checked by head movement of the pronoun through the extended projections of N all the way to D. In somewhat simplified terms, agreement markers on adjectives and nouns are not identical all the time, and adjectives sometimes may show, what Progovac

calls, “heavier” agreement, which “comprises” the nominal agreement. Since pronouns surface bearing this “heavier” adjectival agreement as well Progovac posits another functional projection below D, labeled AgrP. The idea is that pronouns move to D through the head of this projection, checking its features in overt syntax, whereas nouns procrastinate their movement until LF, and thus do not surface with the same agreement pattern. Consider (5) below (Progovac 1998: 173):



It is assumed, along the lines of Cinque (1991), that the heavy agreement visible on the adjective in (5a) (i.e., *lepo-ga* – ‘handsome’) is generated in AgrP, which is an extended projection of NP. The pronoun in (5b) moves to D through the head of AgrP acquiring the agreement morphology characteristic of adjectives. Since nouns, on the other hand, procrastinate their movement to D until LF (if they move at all) they do not surface with the same agreement morphology as adjectives and pronouns do.

Progovac’s analysis is undoubtedly elegant and appealing since it appears to derive many facts in a fairly simple way. As discussed in section 4.3 I agree for instance that the noun/pronoun asymmetry in SC arises as a consequence of movement of pronouns. However, I believe that the facts at hand are much more complex than they may initially appear to be and that they do not give legitimate motivation for certain important aspects of Progovac’s account. In particular, I show in the next subsection that there are several important empirical observations that seriously challenge the validity of postulating a null D in SC based on the phenomena under discussion here.

4.2.2 Problems for the DP Analysis

There are basically two types of problems that the analysis sketched above faces. First, it makes some wrong predictions, and second, it misses a few generalizations by glossing over some very interesting empirical observations. I take a closer look at these problems in the next few subsections.

4.2.2.1 AgrP in the SC DP/NP.

SC (and more generally Slavic) agreement facts are a complex matter (see, e.g., Wechsler and Zlatić 2003, Bošković 2009b, Despić 2010), which I discuss in more detail in Chapter 5. What is important for our current purposes is that in plural we observe the opposite state of affairs from what we would expect, given the structures in (5). Consider the following example:

- (6) a. I sam-**e** devojk-**e** to nervira. c. I nj-**ih** sam-**e** to nervira.
 And alone girls that irritates And them alone that irritates
 ‘That irritates girls themselves.’ ‘That irritates them themselves.’
- b. ?*I devojk-**e** sam-**e** to nervira d. ?*I sam-**e** nj-**ih** to nervira

Here, the asymmetry in the linear order is identical to the one in (1): the pronoun linearly precedes the adjective, while the noun follows it, regardless of the number of the noun/pronoun in question. In (6), however, it is the adjective and the noun that share the same suffix (i.e., *-e*), and not the adjective and the pronoun, as predicted by (5).

Also, as discussed in section 4.3.2, adjectives other than *sam*, with which the noun/pronoun asymmetry in (1) occurs, can also modify SC pronouns (e.g., *pravi* ‘real’). In such cases, however, pronouns and nouns behave identically, in that they necessarily follow the adjectives in question:

- | | | | |
|-----|-----------------------------------|-----|---------------------------------|
| (7) | a. Konačno vidimo pravog Milana. | (8) | a. Konačno vidimo pravog njega. |
| | Finally we see real Milan. | | Finally we see real him. |
| | ‘Finally we see the real Milan.’ | | ‘Finally we see the real him.’ |
| | b. *Konačno vidimo Milana pravog. | | b.*Konačno vidimo njega pravog. |

These examples are problematic for Progovac’s analysis because the pronoun in (8a) obligatorily follows the adjective, yet it still bears the “heavier” agreement morphology (i.e., *nje-ga*), just as the adjective *pravo-g(a)*, and in contrast to the noun *Milan-a* in (7a), which also must follow the adjective. Thus, even though the pronoun clearly does not move over the adjective to a higher position, both the adjective and the pronoun bear the same “heavy” morphology. The facts in (6)-(8) clearly show that the agreement data used to motivate AgrP in (5) cannot be used to support the existence of DP in SC.

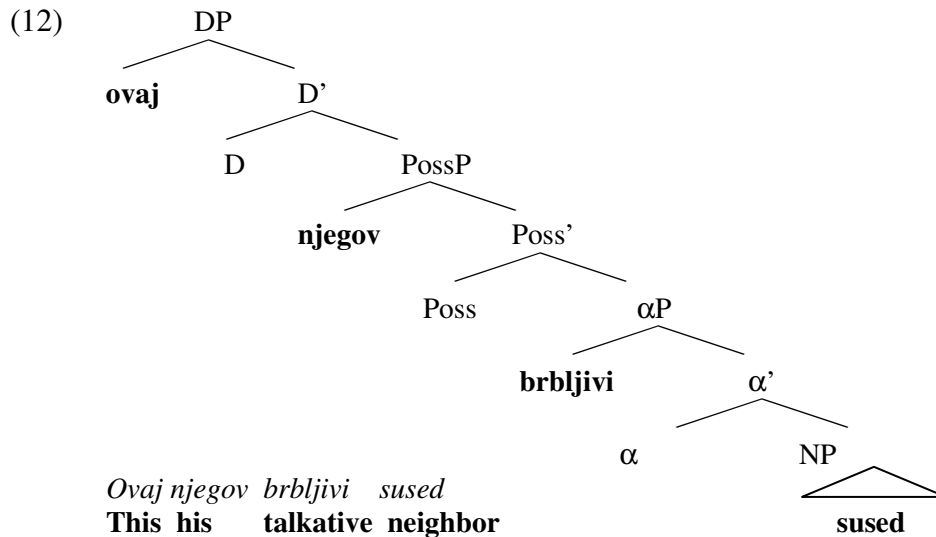
4.2.2.2 Demonstratives, Possessives and the Intensifier

Although it appears to resolve the basic noun/pronoun asymmetry in SC in a rather simple way, Progovac’s analysis creates an ordering paradox with respect to the position of possessives and demonstratives, on the one hand, and the adjective *sam*, on the other. Consider first the sentences in (9)-(11), which show that the adjective *sam* must precede demonstratives and possessives.

- (9) a. I sam njegov brat se složio sa tim.
 And alone his brother refl. agrees with that
 ‘His brother himself agreed with it.’
- b. ?*I njegov sam brat se složio sa tim.
 And his alone brother refl. agrees with that
- (10) a. I sama ta činjenica dovoljno govori.
 And alone that fact enough speaks
 ‘That fact itself speaks enough.’
- b. ?*I ta sama činjenica dovoljno govori.
 And that alone fact enough speaks
- (11) a. I sam taj osećaj je nešto posebno.
 And alone that feeling is something special
 ‘And that feeling itself is something special.’
- b. ?* I taj sam osećaj je nešto posebno.
 And that alone feeling is something special

The problem should be clear: if the position of the adjective *sam* is fixed below the null D head, why do then demonstratives and possessives necessarily follow it, when on most DP analyses these elements are structurally higher than D, either as specifiers of DP, or as part of some higher functional structure? For instance, for Progovac (1998) pronominal possessives are in the specifier of DP in (5). Bašić (2004: 26), on the other hand, suggests a somewhat different structure for the SC DP, as already illustrated in Chapters 1 and 2. Bašić assumes that attributive adjectives are generated in specifier

positions of α Ps, functional projections in the functional spine of DP (along the lines of Cinque 1994), while the possessive is located in the specifier position of a separate PossP, which is structurally lower than DP.



In contrast to Progovac's (1998) structure in (5), possessives are for Bašić positioned below the null D in (12) and that might be consistent with (9). However, (10)-(11) are still problematic since the demonstrative is taken to be in the specifier of DP and hence structurally higher than D.

Thus, a very serious question for any DP account of the SC noun/pronoun asymmetry is why demonstratives and possessives must follow the very same adjective *sam* that triggers the noun/pronoun asymmetry in (1), if this adjective's position is fixed somewhere below D, which by assumption hosts pronouns. Furthermore, in contrast to SC, in Italian the demonstrative appears in the "expected" place, i.e., before the adjective

sola, as illustrated in (13), which is a modified version of (4a). Importantly, *sola* here has the ‘only, unique’ reading:

- (13) Quella sola ragazza presente era antipatica. (Andrea Calabrese p.c.)
that only girl present was dislikable

This observation reinforces the claim that nominal domains of Italian and SC differ in ways deeper than what the UDPH argues for.

In addition, there is only one adjective with which this asymmetry appears in SC and its meaning is quite exceptional, i.e., it is a typical intensifier, as is obvious from the examples given above.¹ The intuition behind the analysis that I will shortly propose is simple: it cannot be a coincidence that the only adjective that “triggers” the noun/pronouns asymmetry in SC has such a special meaning. Unless it is demonstrably and conclusively shown that this is in fact a coincidence, this fact cannot be ignored. On the account that I propose below, following Eckardt (2002), *sam* is an intensifier and therefore it is always in focus. This correctly predicts, as I will demonstrate, that the intensifying *sam* cannot modify clitic pronouns, which due to their prosodic nature cannot be part of focus.

Also, in addition to having a peculiar meaning, this adjective differs from other, “regular” adjectives in that it has to be linearly adjacent to the pronoun it modifies. When it is separated from the pronoun it modifies, by an intervening clitic for instance, it loses

¹ Cases like *Mi bogati* ‘We rich’ discussed in Progovac (1998), fall out of the scope of this investigation, since in my opinion they do not tell us anything conclusive about the problem given that they are limited to 1st and 2nd person plural pronouns (**Oni bogati* ‘They rich’, or **Ja bogati* ‘I rich’, are ungrammatical). The asymmetry discussed here, on the other hand, holds throughout the whole paradigm regardless of number, person and case features of the noun/pronoun involved.

- | | |
|------------------------------|---------------------------|
| b. Njegovu devojku je video. | Njegovu je devojku video. |
| His girl is saw | His is girl saw |
| 'He saw his girlfriend.' | |
| c. Lepu devojku je video. | Lepu je devojku video. |
| Pretty girl is saw | Pretty is girl saw |
| 'He saw a pretty girl.' | |

4.2.2.3 SC Reflexives and the Intensifier

Another problem for the movement-to-D account proposed by Progovac is raised by the paradigm in (16), noted by Progovac (1998; 167, fn.2). As shown in (16), SC reflexive pronouns pattern with nouns, rather than with other pronouns in that they follow the intensifier:

- (16) a. On ne podnosi ni samog sebe.
 He not stands neither alone self-acc
- b.??On ne podnosi ni sebe samog.

Whereas it is not at all clear how this fact can be adequately captured by the DP account, I will argue that it straightforwardly falls out under the analysis which I propose in the next section. Briefly, I will argue that the noun/pronoun asymmetry in question is due to clitic movement of pronouns to the phrase projected by the intensifying adjective *sam*; since unlike pronouns, nouns and reflexive pronouns do not have short forms they do not move and therefore necessarily follow the intensifier *sam*.

In this section I have summarized the issues that challenge any account of the SC noun/pronoun asymmetry which purely relies on postulating DP in this language. In the next section I first outline my own analysis and then I justify it with a number of different types of empirical arguments. I discuss in detail two types of pronouns in SC and their relation with focus and I examine the syntactic and semantic nature of the intensifier *sam*. In the course of the discussion I will show that the analysis I propose accounts for all the facts presented above.

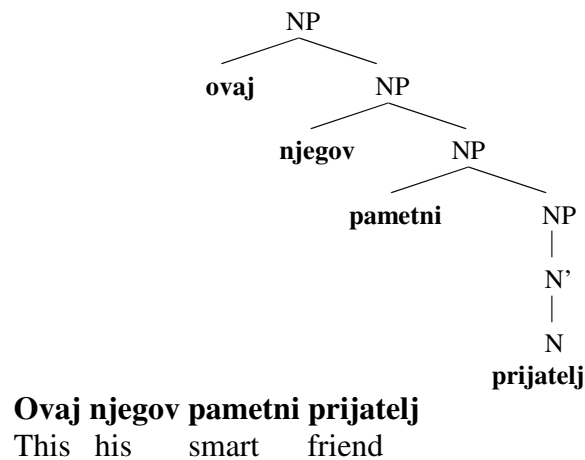
4.3 The NP-Analysis

I argue in this section that the SC noun/pronoun asymmetry can be deduced from other traits of SC grammar and that it does not necessitate positing a null DP. In a nutshell, I contend that this phenomenon follows straightforwardly from independently motivated properties of SC, key among which are (i) clitic movement: SC pronouns come in two types, strong/full and deficient/clitic, each of which is specified with a set of certain characteristics – most importantly, clitics move and, due to their phonological nature, cannot be associated with focus, hence are pronounced as strong in this context, and (ii) the syntax and semantics of intensifiers: as already noted, the asymmetry of the sort illustrated above occurs in a full paradigm only with one adjective, which is a typical intensifier.

4.3.1 The Structure of the SC NP

As already argued for in Chapters 2 and 3, I assume that (17) is the right structure of SC NP. On this traditional view, all pronominal elements are simply adjoined to the NP:

(17) [_{NP} *Demonstr.* [_{NP} *Poss.* [_{NP} *Adj.* [_{NP} N]]]]].



Recall that, as discussed in Chapter 1, both demonstratives and possessives are morphologically adjectival in SC; they in fact agree with the noun they modify in case, number and gender in the same way adjectives do:

- (18) a. Onom Milanovom zelenom kućom
 That_{FEM/SG/INSTR} Milan's_{FEM/SG/INSTR} green_{FEM/SG/INSTR} house_{FEM/SG/INSTR}
- b. One Milanove zelene kuće
 That_{FEM/SG/GEN} Milan's_{FEM/SG/GEN} green_{FEM/SG/GEN} house_{FEM/SG/GEN}

Moreover, SC possessives and demonstratives syntactically behave like adjectives in every respect (see Chapter 1 for a detailed overview), which is completely consistent with the proposed analysis. For instance, they can all be extracted out of the NP they modify:

(19) a. Onu je pročitao [t knjigu].

That is read book

‘He read that book.’

b. Njegovu je pročitao [t knjigu].

His is read book

‘He read his book.’

c. Zelenu je pročitao [t knjigu].

Green is read book

‘He read the green book.’

This fits the model suggested by Bošković (2005), which was presented in the previous chapter:

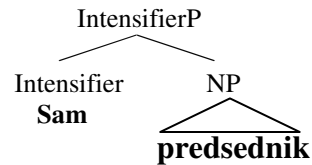
(20) a. [_{DP} D [_{AP} Adj [_{NP} N]]] (DP languages)

b. [_{NP} AP N] (NP languages)

Recall that AP “Left Branch Extraction” (LBE) is not possible in (20a) (i.e., languages that project DP) because it would involve extraction of a non-constituent. The AP in (20a) is not a constituent to the exclusion of the NP. The non-constituency problem, however, does not arise in (20b) (DP-less languages, like SC).

Furthermore, I propose that given its unique semantic and syntactic behavior, the intensifying adjective which triggers the observed asymmetry projects a phrase of its own above the NP; it is not adjoined to NP as other adjectives, possessives and demonstratives are.

(21) [_{IntensifierP} *Intensifier* [_{NP} *Demonstr.* [_{NP} *Poss.* [_{NP} N]]]].



Sam **predsednik**
Intensifier president

This structure predicts, correctly, that the intensifying *sam*, which heads the IntensifierP in (21) cannot be extracted in the same manner as adjectives, possessives and demonstratives can be:

(22) a. Video sam samog Tita.

Seen am intens Tito

‘I saw Tito himself.’

b. Samog sam video Tita.

Alone am seen Tito

‘I saw Tito alone.’

Only (22a) has the intensifying meaning; *sam* in (22b) can only mean ‘alone’.⁴

⁴ Note that LBE is not possible out of an NP modified by the intensifier *sam*:

Also, we expect that the presence of IntensifierP should affect binding. Recall that I have argued in Chapter 2 that constructions like (23a) below involve a binding violation, in particular, a Condition C violation. On the structure of the SC NP given in (23b), all pronominal modifiers including possessives are adjoined to NP. The possessor in (23a) then c-commands the co-indexed R-expression, causing a Condition C violation.

(23) a. *Njegov_i film je razočarao Kusturicu_i.

His film is disappointed Kusturica

‘His_i film disappointed Kusturica_i.’

b. [_{NP} *Demonstr.* [_{NP} *Poss.* [_{NP} *Adj.* [_{NP} N]]]]].

Moreover, as observed in Chapter 2, adding just a demonstrative to a structure such as (23a) does not change the binding facts, which is consistent with the claim that the demonstrative is just another segment of NP:

(24) *_{[NP} Ovaj _{[NP} njegov_i _{[NP} film]]] je razočarao Kusturicu_i.

this his film is disappointeds Kusturica

‘This film of his_i disappointed Kusturica_i.’

-
- (i) *Bivšeg_i sam video [*samog* t_i predsednika].
 Former am saw intens president
 ‘I saw the former president himself.’

As I show below, NPs modified by the intensifier are always in focus, and since LBE is generally taken to be driven by focus considerations, the structure in (i) involves focus movement of an element which is already focalized. This, I argue, rules out (i) independently of the structure in (21) (see Bošković (2008b) (and references therein) for an overview of violations of the same type and a specific account; it is argued in that work that an element in an operator position (focus, topic, etc.) cannot undergo any operator movement from that position).

Constructions with the intensifier *sam*, on the other hand, exhibit very different behavior. Thus, (25) is fully acceptable:

(25) (I) *sam njegov_i film je razočarao Kusturicu_i.*

(And) intens his film is disappointed Kusturica

‘His_i film itself disappointed Kusturica_i.’

If the intensifier *sam* projects a phrase on its own, which dominates the NP it modifies (see (21)), as suggested by the proposed analysis, the acceptability of (25) falls out straightforwardly. Due to the presence of IntensifierP, the possessive in (25) is not dominated only by a segment of the subject NP, as it is in (23a) and (24), and, hence, does not c-command the co-indexed object R-expression. Consequently, no violation of Condition C arises. I conclude therefore that the intensifier projects a phrase dominating NP, whereas demonstratives and possessives are simply adjoined to it.

Furthermore, assigning an independent projection to the intensifier above NP enables us to explain not only the contrast in binding between (25), on the one hand, and (23a) and (24), on the other, but also the ordering facts, namely the fact that the intensifier obligatorily precedes possessives and demonstratives. Recall from the previous section that one of the main problems for the DP-based analyses of the SC noun/pronoun asymmetry is that demonstratives and possessives necessarily follow the intensifier *sam*:

- (26) a. I sam njegov brat se složio sa tim.
 And intens his brother refl. agrees with that
 ‘His brother himself agreed with it.’
- b. ?*I njegov sam brat se složio sa tim.
 And his intens brother refl. agrees with that
- (27) a. I sama ta činjenica dovoljno govori.
 And intens that fact enough speaks
 ‘That fact itself speaks enough.’
- b. ?*I ta sama činjenica dovoljno govori.
 And that intens fact enough speaks
- (28) a. I sam taj osećaj je nešto posebno.
 And intens that feeling is something special
 ‘And that feeling itself is something special.’
- b. ?* I taj sam osećaj je nešto posebno.
 And that intens feeling is something special

On the DP approaches to SC, the basic noun/pronoun asymmetry in SC obtains because pronouns move to D across the intensifier *sam*, while nouns stay in their original positions. But since the intensifier is on these approaches lower than D, and since it is generally taken that demonstratives and possessives are located in the DP projection, then we should expect the intensifier to necessarily follow demonstrative and possessives, contrary to fact. On the analysis advanced here, however, no such problem arises,

because demonstratives and possessives are expected to follow the intensifier, given the structure in (21).

As far as the noun/pronoun asymmetry is concerned, IntensifierP in (21) provides a legitimate site for movement of pronouns, since in contrast to other modifiers discussed above the intensifier is not an NP adjunct. This in turn derives in a principled manner the observation that only the intensifier *sam* triggers the noun/pronoun asymmetry introduced in (1) in the beginning of this chapter. In particular, I assume, as discussed below, that the pronoun adjoins to *sam* via clitic movement, which derives this asymmetry. That is, I argue that the movement in question is in fact clitic movement. Cross-linguistically clitics always occur in derived positions, i.e. clitics must undergo movements that other pronouns and full NPs/DPs are exempt from; a structural deficiency of clitics is often assumed to drive this movement (see Bošković 2001, Cardinaletti and Starke 1999, Chomsky 1995, Franks 1998 for different versions).

The immediate and very obvious objection to this proposal is that clitics never appear with the intensifying adjective even though clitic movement is taken here to essentially underlie the asymmetry. That is, the intensifying adjective *sam* can only modify strong/full pronouns.

- | | |
|--|--|
| <p>(29) a. Video sam je samu.
 Seen am her_{CLITIC} alone
 ‘I saw her alone.’
 *‘I saw her herself.’</p> | <p>b. Video sam nju samu.
 Seen am her_{STRONG} intens
 ‘I saw her alone.’
 ‘I saw her herself.’</p> |
|--|--|

As already pointed out, in addition to its intensifying meaning *sam* can also mean ‘alone’. However, the intensifying meaning is present only with strong/full pronouns (e.g., (29b)), not with clitic pronouns (e.g., (29a)). This is not expected if the linear order of the pronoun in constructions like (1) is taken to be a consequence of clitic movement.

I argue, however, that there is no real problem with this assumption, if one adopts a right semantics for the intensifier *sam* and a particular approach to cliticization. Regarding the former, I assume Eckardt’s (2002) analysis, on which intensifiers of this sort always have to be in focus. On this assumption, the intensifier head is always in focus and as such is obligatorily marked with prosodic prominence at PF, which directly conflicts with the phonological nature of the pronominal clitic, which I argue moves to IntensifierP. That is, clitics by definition cannot bear phrase accent and as such cannot be part of focus which generally requires some higher level of prosodic prominence. I propose that in order to avoid the clash, in the postsyntactic component the clitic is replaced with the corresponding strong form, which can bear the phrasal accent required by focus. The claim is then that a strong pronoun modified by the intensifier *sam* is underlyingly a clitic, which is only pronounced as strong. In the next two subsections I justify these assumptions. I first focus on the interpretative properties of *sam* and then I discuss in detail the two types of pronouns in SC and their relation to focus.

4.3.2 *The Intensifier sam*

At least since Longobardi (1994), referring to an adjective’s position and interpretation has been a well-known and widely assumed criterion for establishing an argument for movement within DP/NP. Longobardi observes that in Italian two orders are possible

when a proper name is introduced by an article (e.g., ✓Det A N and ✓Det N A); the absence of the article, however, forces an N-initial order (*A N and ✓N A). The assumption is that the empty D has to be filled (in overt syntax in Italian), which forces the proper name to move from N to D over the adjective. And as already mentioned, an important argument that an actual movement is involved, rather than something else, comes from the interpretation of the adjective. That is, A in the ✓N A order is (or can be, according to Longobardi) interpreted in the same way A in the ✓Det A N order is.

- (30) a. La sola Maria si è presentata. d. *La sola lei si è presentata
 The only Maria showed up The only she showed up
 ‘Only Mary showed up.’ e. Lei sola si è presentata.
 b. *Sola Maria si è presentata. ‘Only she showed up.’
 c. Maria sola si è presentata. f. *Sola lei si è presentata.
 Maria only(fem) showed up

Longobardi illustrates this with another example, which involves possessives (Longobardi 1994: 623-624). Briefly, postnominal possessives in constructions like *Il Gianni mio* ‘my Gianni’, which includes an article, tend to be strongly contrastive: *mio* here is interpreted with contrastive reference to the existence of another salient Gianni in the domain of discourse who is not ‘mine’. This interpretation, however, is not required for the prenominal *mio* in *Il mio Gianni*, which can be understood as a purely affective expression. The fact that the expression *Gianni mio* (without the article) can also have

this affective interpretation, which *Il Gianni mio* lacks, suggests that *Gianni* moves over *mio* to the D position when this position is not filled.

Turning to SC, we see that it significantly differs from Romance in this respect. All adjectives precede the noun they modify, and when they follow it they most naturally have a predicative interpretation. Thus, a strictly non-predicative, attributive adjective usually cannot follow a noun or a pronoun. The noun and the pronoun in (31)-(32) behave identically with respect to *pravi*/'real', in that they can only follow it (as already shown in section 4.2.2.1):

- (31) a. Konačno vidimo pravog Milana. (32) a. Konačno vidimo pravog njega.
Finally we see real Milan. Finally we see real him.
'Finally we see the real Milan.'
b. *Konačno vidimo Milana pravog. b.*Konačno vidimo njega pravog.

As for adjectives that can be both attributive and predicative, either order is allowed:

- (33) a. Konačno vidimo veselog njega/Milana.
Finally we see happy him/Milan
'Finally we see the happy him/ happy Milan.'
b. Konačno vidimo njega/Milana veselog.
'Finally we see him/Milan happy.'

In (33b) the adjective *veselog* 'happy' can follow the pronoun/proper name and the sentence has the meaning characteristic of (secondary) predication – we finally saw

him/Milan when he is happy (similar to its English translation). In (33a), on the other hand, when *veselog* ‘happy’ modifies the pronoun, a restrictive (i.e., contrastive) meaning is forced. The pronoun here is probably treated as a common noun, where different instantiations of “him” are contrasted, e.g., we finally see how his happy mood looks like as opposed to his, say, nervous mood. Similar holds for (32a) as well.

Progovac’s examples, repeated below, are in this respect of real importance because they provide the same type of evidence for movement as Longobardi’s examples do. The adjective here has the same meaning in all examples regardless of the linear position of the modified element.

- | | | | | | | | | | | | | | |
|------|----|-------|-----------|--------|-----------|-----------|--|----|-------|-----------|--------|-----------|-----------|
| (34) | a. | I | samu | Mariju | to | nervira. | | c. | I | nju | samu | to | nervira. |
| | | And | intens | Mary | that | irritates | | | And | her | intens | that | irritates |
| | | ‘That | irritates | Mary | herself.’ | | | | ‘That | irritates | her | herself.’ | |
| | b. | ?*I | Mariju | samu | to | nervira. | | d. | ?*I | samu | nju | to | nervira. |

This is the only case where the full paradigm holds in that all pronouns precede, while all nouns follow the adjective, and the adjective has the identical meaning. The fact that it agrees with the modified element in case, number and gender tells us that it is indeed morphologically an adjective, like demonstratives and possessives.

However, as frequently emphasized in the previous section, *sam* has a few distinct readings:

(35) Intensifier:

Ona *sama* je živila u Titovoj kući.

She intens_{3/SG/NOM} is lived in Tito's house.

'She herself lived in Tito's house.'

(36) Alone:

a. Ona je *sama* živila u Titovoj kući.

She is alone_{3/SG/NOM} lived in Tito's house

'She lived in Tito's house alone.'

b. Ona je živila *sama* u Titovoj kući.

c. Ona je živila u Titovoj kući *sama*.

(37) Only:

Ona je *samo* živila u Titovoj kući.

She is only lived in Tito's house

'She only lived in Tito's house.'

In (35), *sam* has the intensifying meaning; it agrees with the noun/pronoun it modifies and it is necessarily adjacent to it. In these cases the observed noun/pronoun asymmetry occurs. *Sam* in (36) also agrees with the pronoun but it means 'alone'. Unlike *sam* in (35), it can appear in a variety of syntactic positions and it can be easily modified with adverbs like *potpuno* 'completely':

(38) ‘Alone’

a. Ona je potpuno sama živala u Titovoj kući.

She is completely alone_{3/SG/NOM} lived in Tito’s house

‘She lived in Tito’s house completely alone.’

b. Ona je živala potpuno sama u Titovoj kući.

c. Ona je živala u Titovoj kući potpuno sama.

By contrast, it is impossible to modify the intensifying *sam* in the same way:

(39) Intensifier:

* Ona potpuno sama je živala u Titovoj kući.

She completely intens_{3/SG/NOM} is lived in Tito’s house.

‘She (completely) herself lived in Tito’s house.’

This clearly suggests that *sam* in (35) and *sam* in (36) are semantically and syntactically very different.

Finally, *sam* in (37) means ‘only’ and shows no agreement (i.e., *samo*). This polysemy of the intensifier and particularly its morphological relation to focus sensitive operators is observed in German as well. German has two different version of the particle *selbst*: the intensifying *selbst* (\approx E *N-self*) and the focus particle *selbst* (\approx E *even*). Eckardt (2002) argues for a principled semantic relation between the two, and proposes a diachronic reanalysis of the intensifying *selbst* into the focus particle *selbst*. The two meanings of *selbst* are exemplified with the following constructions (Eckardt 2002: 372):

(40) a. Selbst JANE FONDA nascht manchmal Yogurette.

Even Jane Fonda eats sometimes Yogurette

‘Even Jane Fonda sometimes eats Yougurette.’

b. Jane Fonda SELBST nascht manchmal Yogurette.

Jane Fonda herself eats sometimes Yogurette

‘Jane Fonda herself sometimes eats Yougurette.’

In (40a), two presuppositions related to the assertion are: (i) the proposition expressed is the least plausible, or most surprising proposition among the set of focus alternatives and (ii) all focus alternatives hold true as well. Intensifying *selbst* in (40b), on the other hand, commonly states that the respective sentence is true and that the proposition is the most surprising, or least probable one in a set of alternative propositions. The alternatives in question arise by replacing the referent of the individual/NP that is intuitively linked with *selbst* by alternative individuals. At the same time, sentences with intensifying *selbst* exhibit *centrality effects* on the alternatives to ‘N-self’. In (40b), for instance, we understand that Jane Fonda is perceived as the central figure in the contextually given alternative set. These alternative individuals have to somehow ‘form the entourage’ of the referent of NP to induce the centrality effects.

Eckardt proposes that the core meaning contribution of *selbst* is the identity function ID on the domain of objects D_e , as given in (41a). The claim is that adnominal *selbst* of the sort seen in (40b) denotes a partial function lifted from a function on D_e . This lifted partial function can take certain, but not all, generalized quantifiers as their

arguments. The claim is that adnominal *selbst* denotes Lift1 of ID, where Lift1 is defined as in (41b) (Eckardt 2002: 380):

(41) a. ID: $D_e \rightarrow D_e$

ID(a) = a for all $a \in D_e$

b. Let f be function on D_e . Then Lift1(f):= $f: D_{((e, t), t)} \rightarrow D_{((e, t), t)}$ is defined as follows:

If $Q \in D_{((e, t), t)}$ is a principal ultrafilter, i.e., of the form $Q = \lambda P(P(a))$ for some $a \in D_e$, then $f(Q) := \lambda P(P(f(a)))$. Else, f is undefined.

I will follow Eckardt's analysis and assume that the SC intensifier *sam* essentially has the semantics of the intensifying *selbst*. While the identity function in (41b), which correlates the two meanings of *selbst* in German is perfectly plausible, one may wonder if it is legitimate to posit a similar kind of relationship between *sam*-intensifier and *sam*-alone in SC. Strictly speaking, 'alone' cannot mean 'self'. It might be that the intensifier reading overrides the truth conditional component 'alone' and that the intensifying *sam* contributes the conventional implicature of surprise, and a very "empty" meaning of identity. At a very informal and intuitive level, on the other hand, the *centrality effects* exhibited by the intensifier (in both German and SC) seem to be quite compatible with some core semantic aspects of 'alone'. In (40b), for instance, Jane Fonda is understood as the central figure in a set of alternative individuals who 'form the entourage', and one may be tempted to say that she is in a way 'alone' with respect to the alternative set. However, I have to leave the problem of exploring and formalizing the potentially deep relation between the intensifier and 'alone' in SC aside since it is well beyond the scope of this work.

With (41a/b) the range of sortal restrictions that characterize adnominal *selbst* receives a natural explanation: adnominal *selbst* can only combine with proper names and definite NPs denoting single individuals or groups, since only definites and proper names denote principal ultrafilters. That is, as originally noticed by Edmondson and Plank (1978), adnominal *selbst* cannot combine with quantifiers (see Eckardt 2002: 379). This correctly extends to SC intensifying *sam*: no quantifiers can be modified by it, regardless of whether they appear as agreeing adjectival elements (42a-b), or via Genitive of Quantification (42c):

- (42) a. *Sam svaki čovek gleda TV. ‘Every man himself watches TV.’
 Intens every man watches TV
- b. *Sam neki čovek gleda TV. ‘Some man himself watches TV.’
 Intens some man watches TV
- c. *Mnogo samih ljudi gleda TV. ‘Many men themselves watch TV.’
 Many intens men watch TV

At this point we can address the problem of the order of demonstratives and possessives with respect to *sam*, which was raised for the DP approach in the last section. Consider again (27), repeated below as (43):

- (43) a. I sama ta činjenica dovoljno govori.
 And intens that fact enough speaks
 ‘That fact itself speaks enough.’

b. ?*I ta sama činjenica dovoljno govori.

And that intens fact enough speaks

Given the semantics of the intensifier *sam* and the general principles of compositional semantics the contrast between (43a) and (43b) falls out straightforwardly. The standard treatment of demonstrative determiners like *that* is that they are of type $\langle\langle e,t\rangle,e\rangle$ (see e.g., Kaplan 1989, King 2001, Roberts 2002, Wolter 2003, among others for discussion). That is, demonstrative noun phrases pick out an individual of type $\langle e\rangle$. The individual is picked out at least partially as a function of its predicate complement phrase. Given the assumption that SC *sam* can only combine with proper names and definite NPs denoting single individuals or groups (i.e., type $\langle e\rangle$), it is expected that this intensifier can combine only with a noun that has been previously turned into an individual. Since demonstratives turn nouns into individuals, the intensifier can be added to the structure only after the demonstrative and the noun have been combined together. In other words, we expect *sam* to precede demonstratives.

The situation with possessives is a bit more complicated, but still quite obvious. As illustrated in (44) repeated below, possessives also obligatorily follow the intensifier:

(44) a. I sam njegov brat se složio sa tim.

And intens his brother refl. agrees with that

‘His brother himself agreed with it.’

b. ?*I njegov sam brat se složio sa tim.

And his intens brother refl. agrees with that

Many analyses treat possessives as modificational. For instance:

(45) Partee & Borschev (1998) (Ri is a free variable)

$[[\textit{Mary's}]] = \lambda x.[\text{Ri}(\textit{Mary})(x)]$

That is, possessives do not turn sets into individuals as demonstratives do, but rather seem to combine with the noun via intersection (i.e., Predicate Modification). The most natural assumption would be that in an article-less language like SC there is a contextually motivated, general type-shifting operation which turns $\langle e,t \rangle$ types to $\langle e \rangle$, and which applies after all Predicate Modification and Functional Application rules have applied (see Heim and Kratzer 1998).⁵ We may assume this operation to be similar to Partee's (1987) *iota* for instance (see Chapter 5 for a more detailed discussion). The prediction then is that the intensifier *sam*, which necessarily combines with $\langle e \rangle$ type arguments, will combine with the NP only after this shifting rule has applied. This in turn means that the intensifier has to linearly precede not only possessives but "regular" adjectives as well. As (46)-(47) illustrate, this is completely borne out:

<p>(46) a. Sam pametni dečak</p> <p style="padding-left: 40px;">Intens smart boy</p> <p style="padding-left: 40px;">‘The smart boy himself.’</p>	<p>b. *Pametni sam dečak</p> <p style="padding-left: 40px;">Smart intens boy</p>
--	--

⁵ As already pointed out in the previous chapter, (in)definiteness of a noun phrase in SC (and many other Slavic languages) is very often determined contextually. For instance, the bare singular subject noun in (i) is ambiguous between definite and indefinite reading, depending on the context.

(i) Pazi! Mačka je ušla u kuhinju.
 Watch out Cat is entered in kitchen
 ‘Watch out! The/a cat entered the kitchen.’

Again, under the standard assumption which takes demonstratives to be of type $\langle\langle e,t\rangle, e\rangle$, and most adjectives to be of type $\langle e,t\rangle$, and according to which possessives are modificational (e.g., (45)), it is natural to assume that semantic composition requires demonstratives to be composed at the end, that is, after adjectives and possessives.

Under this view, semantic composition essentially does not regulate the order of possessives and adjectives relative to each other in any way, which is supported by (48). However, while semantic composition allows possessives to be composed either after or before modifying adjectives, demonstratives must be composed after both possessives and adjectives, as shown in (49). Bošković's (2009) thus argues that since these ordering restrictions follow from semantic requirements, syntax can generate all the orders, but semantics will filter out the unacceptable ones; i.e., the ordering restrictions among prenominal, adjunct modifiers in SC follow directly from semantic composition and are not imposed by syntax. Following this line of analysis, I have argued that the order of *sam* with respect to possessives, adjectives and demonstratives is also determined by semantics. In principle, these elements could be adjoined to IntensifierP, in which case they would precede *sam*. However, there is no need to appeal to a syntactic restriction to rule out this possibility since such an ordering, where demonstratives, possessives and adjectives would be composed after *sam*, is filtered out by semantics.

Now, going back to the function in (41a), it might not be immediately obvious what its semantic contribution is supposed to be. Here, Eckardt suggests that intensifiers of this sort always have to be in focus: while *selbst* (or SC *sam*) does not contribute anything to the meaning of the sentence, it will become meaningful exactly if it is in focus – focused *selbst* will, like any other focused item, evoke focus alternatives that will

enter into the meaning of the respective focus construction. The account predicts that whatever the exact set of focus alternatives to ID will be, it will always induce a set of alternative individual objects in D_e that is structured into a center, held by the referent a of the respective NP, and a periphery, generated by applying all alternative functions to a . That is, we logically expect the above-mentioned *centrality effects*. Thus, it is no surprise that the intensifying *selbst* is always stressed in German, and that it occurs unstressed only under circumstances that will generally suppress all previous accents. Assuming the same semantics for SC *sam* it is not surprising that this element cannot modify clitic pronouns, i.e., due to their prosodic nature clitics cannot be in focus, since focus in SC always requires prosodic prominence:

- | | | | |
|---------|--|----|---|
| (50) a. | Video sam je samu.
I-seen am her _{CLITIC} alone
'I saw her alone.'
*‘I saw her herself.’ | b. | Video sam nju samu.
I-seen am her _{STRONG} intens
'I saw her alone.'
'I saw her herself.’ |
|---------|--|----|---|

Although the relation between focus and two types of pronouns in SC is examined in detail in the next section, it is worth noting at this point that clitics cannot be arguments of focus sensitive operators in general. Take for instance SC *samo* ‘only’, which is the non-agreeing, adverbial version of *sam*, already presented in (37). It is standardly accepted in the semantics literature that this element is focus sensitive.⁶ Consider the following examples:

⁶ See Beaver and Clark (2003) for an overview of the relevant literature and an interesting discussion on how grammaticized the relationship between *only* and its associated focus is.

- (51) a. Samo sam ga video.
 Only am him_{CLITIC} seen
 ‘I only saw him.’ (I only *saw* him, but I didn’t *talk* to him)
 *‘I saw only him.’ (I only saw *him* and no one else)
- b. Samo sam njega video.
 Only am him_{STRONG} seen
 ‘I only saw him.’ (I only *saw* him, but I didn’t *talk* to him)
 ‘I saw only him.’ (I only saw *him* and nobody else)

In contrast to the strong/full pronoun in (51b), the pronominal enclitic *ga* in (51a) cannot be modified by *only*. That is, the clitic pronoun cannot be interpreted as part of focus associated with ‘only’.

The topic of SC clitics has been widely researched (see Browne 1974, Bošković 2001, Godjevac 2000, Franks 1998, Franks and Progovac 1994, Zec and Inkelas 1991, among many others); I do not intend to explore their nature in detail here. The property that is relevant for our purposes is fairly clear: SC pronominal (en)clitics are phonologically dependent elements and they cannot be associated with any kind of prosodic prominence. Since focus in SC is always expressed through some means of prosodic prominence (see e.g., Godjevac 2000) it follows that clitics cannot be associated with focus. In other words, clitics by definition cannot bear phrase accent and as such cannot be part of focus which generally requires some higher level of prosodic prominence. However, when it comes to the noun/pronoun asymmetry in SC and the intensifier *sam*, I will argue in the next section that clitic movement actually underlies this phenomenon. In particular, what appears to be a strong pronoun is constructions

involving the intensifier *sam* is in fact a “camouflaged” clitic/weak pronoun. I will propose that due to its incompatibility with prosodic properties of focus, the clitic/weak pronoun modified by the intensifier *sam* is replaced with the corresponding strong form in the postsyntactic component. Although this pronoun is pronounced as strong, I will show that it exhibits all interpretative properties of deficient/weak pronouns.

But before moving on to the next section I would like to point out an interesting morphological fact about the SC intensifier *sam* which neatly supports Eckardt’s approach. As the reader might have noticed, the intensifier *sam* seems to “optionally” appear with the particle *i*, which in SC can either mean *even* or *and*. However, this particle’s distribution is not entirely unrestricted and seems to correspond to different interpretations of the intensifier. In addition to the distinction between the meaning of adnominal *selbst* and adverbial *selbst*, Eckardt discusses a distinction between so-called “additive” and “exclusive” uses of *selbst*. Roughly, “additive” uses of *selbst* suggest that in addition to N-*selbst*, other persons acted, too, whereas “exclusive” uses, in contrast, indicate that N *instead of someone else* was involved in a certain action. The following examples from Eckardt (2002: 392) illustrate this distinction:

(52) a. (Unfortunately it wasn’t only a simple soldier but...)

Dar König SELBST wurde gefangengenommen.

The king himself was captured

‘The king himself was captured.’ (exclusive)

b. Aphrodite SELBST ist nicht schöner als Maria.

Aphrodite herself is not more-beautiful than Maria

‘Aphrodite herself isn’t more beautiful than Maria.’ (additive)

We tend to understand (52a) as stating that only the king was captured, even though it is logically possible that other persons were captured too. That is, the gravity of the situation is such that none other than the most important figure for our national identity (i.e., the king) has been captured. In (52b), we understand by world knowledge that if Aphrodite, being the goddess of beauty, is less beautiful than Maria, then all other women will be less beautiful too. That is, even the mighty Aphrodite is “added” to the unfortunate group of women that are less beautiful than Maria. Now, unsurprisingly when the particle *i* ‘even/and’ appears with the intensifier *sam* the “additive” reading is strongly preferred:

(53) a. Ma nisu zarobili bilo kakvog vojnika!

But haven’t captured any how soldier

‘They haven’t captured just a simple soldier!’

✓ Sam Kralj je zarobljen!

?? I sam Kralj je zarobljen!

Intens king is captured

‘The king himself has been captured!’

(exclusive)

b. Rat je bio strašan. Zemlja je izgorela a mnogi vojnici i oficiri su poginuli...

War is was awful Country is burned and many soldiers and officers are died

The war was awful. The country was burned and many soldiers and officers

died...

✓ I sam Kralj je zarobljen.

?? Sam Kralj je zarobljen.

And intens king is captured

‘The king himself has been captured.’

(additive)

In (53a), similarly to Eckard's (52a), a so-called "corrective exclusive" context is set up. The speaker here assumes that the hearer, incorrectly, thinks that another person participated in action X and corrects this presumptive error by uttering the sentence in (53a). Combining the intensifier with the particle *i* in this context is not very felicitous, since this context implies that the king was captured instead of someone else. In (53b), on the other hand, it is suggested that the action in question is repeatable and that the capturing of the king happened 'in addition', and the more plausible way of expressing it is by adding *i* to the intensifier.

It seems therefore that the meaning subtleties reported for the German intensifier *selbst* are in fact morphologically encoded in SC, which in turn provides further evidence for the analysis outlined in the previous section. Moreover, the correlation between the conjunct *i* and the intensifier *sam*, which is claimed to always be in focus, conforms neatly to other works that treat (at least certain meaning aspects of) the particle *i* in SC as deeply related to focus.^{7,8}

⁷ For a comprehensive analysis of morpho-semantic properties of SC conjunctions in general see Arsenijević (2010)

⁸ Note also in this context that the Greek conjunction *ke* 'and' (Giannakidou 2007) and SC *i* display similar properties. Giannakidou observes that unlike its English counterpart 'and', which behaves strictly as a coordinator, *ke* also behaves like a focus additive particle itself. It is a monadic operator particle which usually attaches to e.g. NPs, DPs and VPs. Such usage is prohibited with 'and' in English (Giannakidou 2007, 46):

- | | | |
|-----|--|--------------------------|
| (i) | a. Irthe ke o Janis.
came and the John
'John {also/even} came.' | (Lit. *And John came.) |
| | b. Fere ke fruta.
bring, imperative and fruit
'Bring fruit too.' | (Lit. *Bring and fruit.) |

The SC conjunction *i* behaves exactly like *ke* in this respect:

4.3.3 Focus and Two Types of Pronouns

In this section I discuss the relation between focus and two types of pronouns in SC and show that the strong pronoun that appears with the intensifier is in fact a clitic, pronounced as strong.

There are many systematic differences between classes of pronouns as discussed in detail in Cardinaletti and Starke (1999). For instance, if a language includes two (or more) classes of pronouns, and if there is a transparent morphological distinction between them, pronouns that are morpho-phonologically reduced (e.g., *deficient*, Cardinaletti and Starke 1999) among other things disallow coordination and do not have to refer only to human entities. In other words, only *strong* pronouns may be coordinated, and at the same time they necessarily refer to human entities. SC pronouns are no exception to this: deficient (clitic) pronouns are obviously reduced versions of strong pronouns, they cannot be coordinated, and in contrast to full, strong pronouns they may have both human and non-human referents, as in the following examples:

- (54) a. Čuo sam je. <+human> <-human>
 Heard am her_{DEFIC} ✓ ✓
 ‘I heard her.’
- b. Čuo sam nju. ✓ *?
 Heard am her_{STRONG}

-
- (ii) a. I Jovan je došao (Lit. *And John came.)
 And John is came
 ‘John also came.’
- b. Donesi i voće. (Lit. *Bring and fruit.)
 Bring and fruit
 ‘Bring fruit too.’

(54a) can equally well mean that I heard a female singer on the radio, or that I heard a song (which also has feminine gender features), whereas the referent of the strong pronoun in (54b) is most naturally interpreted as a human individual.

Cardinaletti and Starke report a variety of other syntactic, semantic/pragmatic and phonological/prosodic asymmetries between the two classes. For instance, as examples of a syntactic asymmetry, they note that a deficient, but not a strong pronoun, cannot occur at surface structure in a θ -position or a peripheral position. As for semantic/pragmatic asymmetries the most notable one is that deficient personal pronouns must have a linguistic antecedent in the discourse. And as opposed to this, only strong pronouns can be used in an ‘ostension’ situation, which, following Cardinaletti and Starke, I label φ . That is, if a new referent is introduced in the discourse, by, say, pointing to a person in a group (which is correspondingly marked with φ in the sentence), only the strong pronoun is possible:⁹

- (55) a. J(e) { * φ la } ai aidé { \checkmark φ elle }.
 I her_{DEF} have helped her_{STR}
- b. Pomogao sam { * φ joj } / { \checkmark φ njoj }.
 Helped am her_{DEF} her_{STR}
 ‘I helped φ her.’

One other well-known generalization, not discussed by Cardinaletti and Starke (1999), which distinguishes clitics from strong pronouns is related to the so-called “Montalbetti effect”. Montalbetti (1984) notices that overt subjects in Spanish (and Italian), as opposed

⁹ See Cardinaletti and Starke (1999) for a number of other tests.

to *pro*, cannot function as bound variables (i.e., only (56b) can have a bound interpretation). However, Montalbetti also notes that clitics pattern with *pro* in that they easily function as variables (e.g., (57a)), whereas strong pronouns are unacceptable in similar contexts (e.g., (57b) is an instance of clitic doubling where the most embedded pronoun is strong)¹⁰:

(56) a. Muchos estudiantes creen que ellos son inteligentes.

Many students believe that they are intelligent

b. Muchos estudiantes creen que *pro* son inteligentes.

Many students believe that *pro* are intelligent

‘Many students_i believe that they_i are intelligent.’

(Montalbetti, 1984: 82)

(57) a. Muchos estudiantes_i creen que Juan *los* vio [e]_i.

Many students believe that John them_{CLITIC} saw

b. *Muchos estudiantes_i creen que Juan *los* vio [a ellos]_i.

Many students believe that John them_{CLITIC} saw them_{STRONG}

‘Many students_i believe that John saw them_i.’

(Montalbetti, 1984: 139)

This holds for SC too:

¹⁰ See the Appendix to this chapter for further discussion of the Montalbetti effect and the two types of pronouns.

(58) a. Svaki predsednik_i misli da ga_i/??njega_i svi vole.

Every president thinks that him_{CLITIC}/him_{STRONG} everyone love

‘Every president_i thinks that everybody loves him_i.’

b. Svaki predsednik_i misli da je pro_i/??on_i najpametniji.

Every president thinks that is pro/he smartest

‘Every president_i thinks he_i is the smartest’

However, the degraded sentences in (58) above become completely acceptable when the strong pronoun is “emphatic”, or, in our terms, a part of focus. In fact, when the pronoun in question is directly modified by a focus operator, it necessarily takes the strong form but it easily functions as a variable. I offer here examples from SC and Italian, which show that strong pronouns (and overt subject pronouns) can easily function as bound variables when they are in the scope of a focus operator (clitic pronouns and *pro*, on the other hand, are completely ungrammatical in these constructions):

(59) a. Svaki predsednik_i misli da samo njega_i svi vole.

Every president thinks that only him_{STRONG} everyone love

‘Every president_i thinks that everybody loves only him_i.’

b. Svaki predsednik_i misli da je samo on_i najpametniji.

Every president thinks that is only he smartest

‘Every president_i thinks that only he_i is the smartest’

c. Ogni ragazzo_i pensa che solo lui_i é intelligente. (Andrea Calabrese, p.c.)

Every boy thinks that only he is smart.’

‘Every boy_i thinks that only he_i is smart.’

I argue that in these examples the deficient pronoun/clitic takes the phonological form of the strong pronoun at PF in order to satisfy phonological requirements of focus. That is, I argue that the strong pronoun here is not the “genuine” strong pronoun, but rather a “camouflaged” clitic.

As discussed in variety of works on this topic (see Browne 1974, Bošković 2001, Godjevac 2000, Franks 1998, Franks and Progovac 1994, Zec and Inkelas 1991, among others) SC pronominal (en)clitics are phonologically dependent elements which cannot be associated with any kind of prosodic prominence. Since focus in SC is always expressed through some means of prosodic prominence (e.g., Godjevac, 2000) it follows that clitics cannot be associated with focus. Consider again (60), which was introduced in the previous section:

- (60) a. Samo sam ga video.
 Only am him_{CLITIC} saw
 ‘I only saw him.’ (I only *saw* him, but I didn’t *talk* to him)
 *‘I saw only him.’ (I only saw *him* and no one else)
- b. Samo sam njega video.
 Only am him_{STRONG} saw
 ‘I only saw him.’ (I only *saw* him, but I didn’t *talk* to him)
 ‘I saw only him.’ (I only saw *him* and nobody else)

In (60a) the pronominal enclitic *ga* cannot be modified by the focus operator *only*. The strong pronoun *njega*, however, can be interpreted as part of focus. In other words, when focus is on the pronoun, the pronoun must have the strong form.

Another interesting fact that points to this direction is that if we want to give a felicitous answer to the question containing *koga* / ‘who_{ACC}’ and *kome* / ‘who_{DAT}’ *wh*-phrases we may use only the appropriate strong pronominal element and not its enclitic counterpart.

(61) Who did you see?

a. #Video sam **ga**.

I-saw aux him

b. Video sam **njega**.

Now, it is a well-known fact that *focus* and *wh* are closely related, both syntactically and semantically, and it is not surprising that clitic pronouns are infelicitous in *wh*-contexts.

In English, the focus correlates with a prominent and readily perceptible pitch accent within the focused phrase (see Rochemont 1986, Zubizarreta 1998, among others). In SC, on the other hand, focus is signaled via phrase accent (see Godjevac 2000), and almost any word can in this way be prosodically prominent regardless of the position in the sentence and the syntactic function. Exceptions to this are naturally enclitics, which by definition cannot have phrase accent of their own, and as such cannot be marked by focus. So, if focus determines an additional focus semantic value for a given syntactic phrase, pronominal enclitics are, due to their phonological nature, unavailable for it.

However, given the discussion of Cardinaletti and Starke (1999), there is nothing *semantic* or *syntactic* that would prevent deficient pronouns from being modified by focus. I propose, then, that in these cases a simple phonological repair applies – a deficient pronoun is pronounced as strong. This is consistent with the observation that all SC deficient pronouns are actually morphologically reduced versions of the full forms.

Given the above discussion, the prediction is that a strong pronoun in focus need not refer strictly to human referents, because it is in fact a clitic underlyingly. This is completely borne out:

(62) Čuo sam čak i nju. <+human> <-human>

Heard am even and her_{DEFIC} ✓ ✓

‘I heard even her.’

The strong form of the pronoun in (62) is just a morphological “camouflage” for a deficient pronoun, i.e., the deficient pronoun/clitic has to be pronounced as strong here since it cannot meet the prosodic requirements of focus, but it retains its interpretative characteristics, namely that it need not refer only to <+human> entities, in contrast to “genuine” strong pronouns.

Finally, if the strong pronoun modified by the intensifier *sam* is actually deficient underlyingly, but is merely pronounced as strong since it is in the focus domain of the intensifier, as argued here, we should expect it to display properties characteristic of deficient pronouns. Consider in this respect (63), a garden-variety example of an intensifier construction:

(63) Malo ko obilazi muzeje oko gradske crkve_i.

Few who visits museums around city church

Nju_i*(samu), opet dnevno poseti oko 50 turista.

Her_{STRONG} alone again daily visits around 50 tourists

‘A few people visits museums around the city church. (As for the church itself), an average of 50 tourists visits it a day.’

Here, the intensifier picks out a pronoun, which refers to the city church, as a center, as opposed to the museums, which constitute the periphery. The pronoun must have the strong form, even though it obviously refers to <-human>; moreover, leaving out the intensifier renders the sentence unacceptable (in the given context).

Consider now the sentences in (64):

(64) a. Svaka kupola_i se sastoji od 3 dela koji je_i podržavaju.

Every dome reflexive consists from 3 parts which her_{CLITIC} support

‘Every dome_i consists of 3 parts that support it_i.’

b. Svaka kupola_i se sastoji od 3 dela koji podržavaju nju_i samu.

Every dome reflexive consists from 3 parts which support her_{STRONG} intens

‘Every dome_i consists of 3 parts that support it_i itself.’

c.*Svaka kupola_i se sastoji od 3 dela koji podržavaju nju_i.

Every dome reflexive consists from 3 parts which support her_{STRONG}

(64c) is ungrammatical as expected since the strong pronoun is intended as a variable bound by an inanimate, non-human subject. (64a) is fine since the pronoun in question is

a clitic, and can therefore be a variable and have non-human antecedents. The strong pronoun modified by the intensifier in (64b), however, behaves like a clitic/deficient pronoun – it perfectly well functions as a variable bound by a non-human entity.

These facts provide strong evidence for the proposals made here. The fact that pronouns modified by the intensifier *sam* can have reference to <-human> and function as bound variables supports the view that these are in fact “camouflaged” deficient pronouns, which in turn means that clitic/head movement is responsible for the SC noun/pronoun asymmetry introduced in the beginning of this chapter, repeated below as (65):

- | | | |
|------|------------------------------------|-------------------------------|
| (65) | a. I samu Mariju to nervira. | c. I nju samu to nervira. |
| | And intens Mary that irritates | And her intens that irritates |
| | ‘That irritates Mary herself.’ | ‘That irritates her herself.’ |
| | b. ?*I Mariju samu to nervira. | d. ?*I samu nju to nervira. |

The idea is that the facts in (65) can be derived simply via clitic movement of the pronoun; the clitic moves, and adjoins to the head of the intensifier, forming a complex head (see below for an explanation of why deficient pronouns have to undergo clitic/head movement, and how this is related to their lack of internal structure). Since the head of the intensifier is always in focus, it is obligatorily marked with prosodic prominence at PF, which directly conflicts with the phonological nature of the pronominal clitic with which it forms the complex head. To avoid the clash, in the post-syntactic component the

clitic is replaced with the strong form, which can bear the phrasal accent required by focus.

4.3.3.1 The Intensifier and Reflexive Pronouns

The analysis developed in this chapter also accounts for why SC reflexive pronouns pattern with nouns, rather than with pronouns, in that they follow the intensifying adjective:¹¹

- (66) a. On ne podnosi ni samog sebe.
He not stands neither intens self-acc
b.??On ne podnosi ni sebe samog.

Whereas it is not really clear how this fact can be adequately captured by the DP account, it straightforwardly falls out under the present analysis. I argue in this section that, unlike pronouns, the SC reflexive *sebe* does not have a deficient/clitic form and therefore cannot undergo clitic movement, which, by assumption, derives the asymmetry. For this reason, reflexives do not move, and like nouns and proper names linearly follow the adjective *sam*.

The reflexive clitic *se* is, however, often (incorrectly) treated as a deficient/clitic form of *sebe*, just as, for instance, 3rd person singular masculine clitic pronominal *ga* is taken to be a short form of *njega*. Since this question bears direct relevance to the current

¹¹ I have slightly changed the orthography in these examples (which are originally from Progovac 1998: 167, fn.2) to bring them in line with the orthographic conventions used in this chapter.

discussion, it needs to be properly addressed and clarified. Below I demonstrate why *se* cannot be taken to be a short form of *sebe*.

First, the morphology of the clitic reflexive does not follow the morphological pattern of pronominal forms. That is, both deficient and strong pronouns are specified for exactly the same set of features- case, gender and number. The reflexive clitic, on the other hand, has only one form – *se*, whereas reflexives are specified for all non-nominative forms (*sebe* is not specified for gender and number).

Table I

	Nom.	Gen.	Dat./Loc.	Acc.	Instr.
Reflexive	-	sebe	sebi	sebe	sobom
Reflexive Clitic	se				

Second, *se*, as opposed to *sebe*, is not an argument, but rather an element which in various ways operates on the theta-grid of the verb, e.g., it turns a transitive verb into intransitive - *vratiti* ‘to return something back’ and *vratiti se* – ‘to come back, to return’. *Se* is also used in passives, middles, and impersonal constructions, all of which are unrelated to *sebe* (e.g., Marelj 2004). Consider in this respect a verb like *roditi se* ‘to be born’. If *se* is indeed a short form of *sebe*, we would expect *sebe* to be able to replace it, without any substantial change in meaning, i.e., a change in the argument structure of the verb. However, *roditi sebe*_{ACC}, means something completely different - ‘to give birth to oneself’. A more radical case are verbs like *pojavit* *se* ‘to show up’, or *desiti se* ‘to happen’ (which Marelj labels *frozen*) which are completely ungrammatical without the

reflexive clitic. Thus, if *se* and *sebe* were simply deficient and strong forms of the same element, these forms should be interchangeable (in the right context), contrary to fact.

However, for the sake of argument one may consider a possibility that the clitic *se* actually comes in two types: one that indeed behaves as described above, and the other that should be analyzed as the short form of *sebe*. That is, if we disregard verbs like *desiti se*, or *roditi se*, we could analyze *videti se* ‘to see oneself’ exactly like *videti sebe*, since the difference in meaning between the two appears to be trivial. On this alternative, *videti se* would not be an intransitive verb, as assumed here, but rather a transitive verb taking a short/clitic form of *sebe*, and, therefore, should be treated on a pair with *videti njega/ga* ‘see him_{STR}/him_{CLITIC}’.

A piece of evidence that shows that this analysis is on the wrong track comes from secondary predicate agreement. When a non-instrumental secondary predicate modifies an argument, it agrees with it in case, number and gender, regardless of whether that argument is an NP or a pronoun. Importantly, however, the form of the pronoun is irrelevant – secondary predicates can modify both strong and deficient pronouns, as in (67a). *Sebe*, being an argument of *videti*, behaves similarly (e.g., (67b)). Crucially, if *se* were a deficient form of *sebe*, in the same way *ga* is a deficient form of *njega*, we would expect it to be modifiable by secondary predicates just as these elements are. This, however, is not the case – as shown in (67b), *se* is completely ungrammatical in such constructions:

- (67) a. Video *sam* *ga* /*njega* / *Milana* *pijanog*.
 Saw *am* *him*_{DEF-ACC}/*him*_{STR-ACC}/*Milan*_{ACC} *drunk*_{3SGMASC/ACC}
 ‘I saw *him*_{DEF/STR}/*Milan* *drunk*.’
- b. Video *sam* *sebe*/**se* *pijanog*. (...yesterday on TV)
 Saw *am* *drunk*_{3SGMASC/ACC}
 ‘I saw myself *drunk*.’

The above arguments clearly indicate that *se* is not a short form of *sebe*, and in that sense, they are sufficient to establish that the behavior of SC reflexives with respect to the intensifier *sam* is consistent with and derivable from the analysis proposed in this chapter.

In particular, on the analysis developed in this chapter, it is movement of clitic pronouns to the phrase projected by the intensifying adjective that creates the observed asymmetry. I have shown that with this assumption, we may explain why only pronouns end up preceding the intensifier, while reflexives and nouns, which do not have deficient forms, obligatorily follow it. As for the observation that the pronoun in these constructions always takes the strong form, I argued that this is a result of a clitic being in the focus domain of the intensifier; since the intensifier is always in focus, the clitic adjoined to it is always pronounced as strong, but crucially preserves interpretative properties characteristic for deficient pronouns. In other words, although it takes the strong form, the pronoun in these cases is in fact deficient underlyingly, which is supported by the fact that it can take <-human> referents and function as a bound variable.

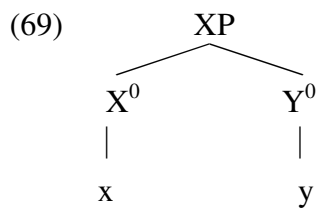
Note also that clitic movement creates a complex head which explains why the intensifier and the pronoun must be linearly adjacent; i.e., not even a clitic can separate

them. Thus, *sam* in (68d) cannot have the intensifying meaning (it can only mean ‘alone’). Recall, on the other hand, that all other adjective-like elements (elements that morphologically behave like adjectives, including both demonstratives and possessives) can easily be separated from the modified noun with a clitic, without any essential change in the meaning.

- | | |
|--|--|
| <p>(68) a. Tu devojkju je video.
 That girl is seen
 ‘He saw that girl.’</p> | <p>Tu je devojkju video.
 That is girl seen</p> |
| <p>b. Njegovu devojkju je video.
 His girl is seen
 ‘He saw his girlfriend.’</p> | <p>Njegovu je devojkju video.
 His is girl seen</p> |
| <p>c. Lepu devojkju je video.
 Pretty girl is seen
 ‘He saw a pretty girl.’</p> | <p>Lepu je devojkju video.
 Pretty is girl seen</p> |
| <p>d. On sam je došao.
 He intens is arrived
 ‘He himself arrived.’</p> | <p>On je sam došao.
 He is intens arrived
 Only: ‘He arrived alone’
 <i>Not:</i> ‘He himself arrived.’</p> |

Now, if morphology corresponds to syntactic structure, clitics are then obviously syntactically less complex than pronouns, e.g., (*ga* vs. *njega*) in SC, (*la* vs. *ella*) in Spanish, etc. The position that I take in this chapter is that pronominal clitics, unlike SC

NPs, have no internal syntactic structure: they are bare heads (i.e., non-branching), syntactic atoms (e.g., Abels 2003a/b). Then, given the above discussion, the analysis developed here is compatible with Moro’s (2000) approach to clitic movement. Moro assumes that clitic movement in Romance (as well as any other movement) is triggered by the necessity of linearizing items, and avoiding symmetry. Clitics are obligatorily displaced to neutralize the point of symmetry they constitute with the head they are sister to, for the sake of linearization at PF (i.e., both the clitic and its sister are heads). For example, at some point in the derivation a clitic object will create a configuration like (69) with its verb:



When this symmetric configuration is formed, the clitic is forced to move to neutralize it.

This line of reasoning can be extended to the analysis presented in this chapter, i.e., clitics move not necessarily to satisfy features of the target, but rather because they are “uncomfortable” with the position they are generated in. They are pronounced as strong at PF simply because they adjoin to the head of IntensifierP (first phrase above the clitic), which is always associated with focus prosodic prominence, i.e., the strong form is then just a morpho-phonological reflex. “Genuine” strong pronouns, on the other hand, avoid these symmetric configurations, and do not move, on the assumption that they have more internal structure than clitics.

4.4 Some Extensions

In a sequence of papers in support of the UDPH, Rutkowski argues that Polish has DP even though it lacks definite articles. Rutkowski's main argument is based on the behavior of the intensifier in Polish and for this reason needs to be addressed here. In particular, Rutkowski (2002) observes that Polish behaves similarly to SC with respect to the noun/pronoun asymmetry.

(70) Polish

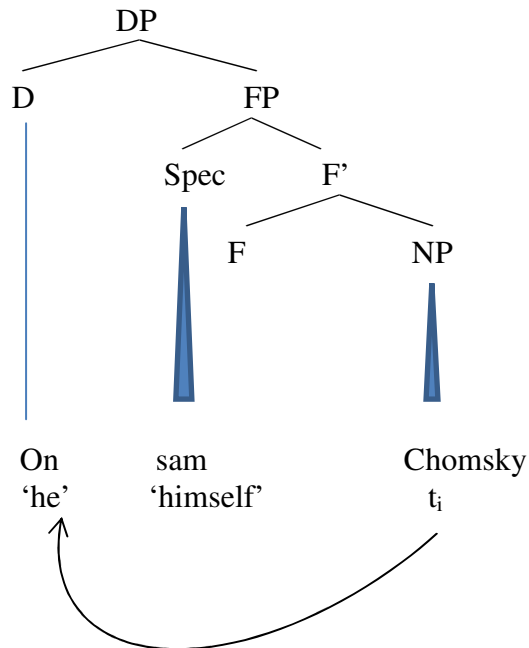
- a. Sam Chomsky czytał mój artykuł → sam noun
alone Chomsky read my article
'Even Chomsky read my article.'
- b. On sam czytał mój artykuł → pronoun sam
he alone read my article
'Even he read my article.'
- c. *Sam on czytał mój artykuł → *sam pronoun
alone he read my article
'Even he read my article.'

(Rutkowski 2002: 160)

Along the lines of Progovac 1998, Rutkowski argues that *sam* is an adjectival category positioned in the Spec of some FP. He assumes that both nouns and pronouns are base-generated below DP and that pronouns move to D (see also Miechowicz-Mathiasen 2011 for an alternative approach).

(71)

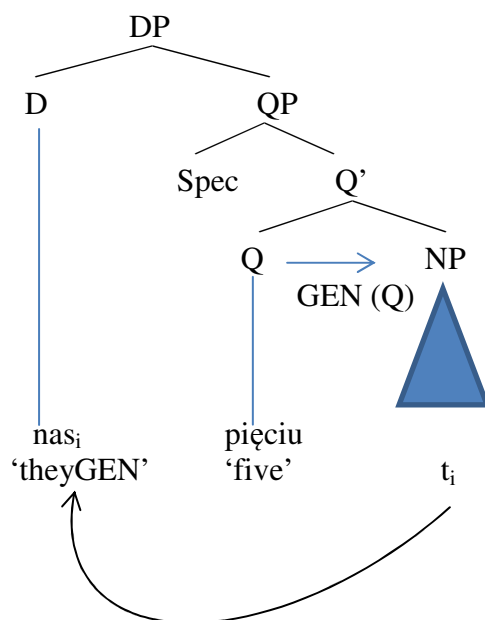
(Rutkowski 2009, 2)



Rutkowski also notices that Polish nouns and pronouns exhibit a similar pattern with respect to quantifiers and numerals, in that pronouns precede quantifiers and numerals, while nouns follow them. He proposes that quantifiers and numerals occupy positions within a functional projection QP below DP and above NP, as illustrated below (in Rutkowski 2009, a similar structure is proposed but the QP in (72) is labeled FP):

(72)

(Rutkowski 2008, 6)



The quantifier *wszyscy* ‘all’ (see (73)), in contrast to the numeral *pięciu* ‘five’, always agrees with the quantified noun/pronoun, and is assumed to be located in SpecQP in Rutkowski (2008).

(73) a. *Wszyscy lingwiści czytali mój artykuł.* (Miechowicz-Mathiasen 2011, 11)

All linguists read my article

‘All linguists read my article.’

b. *Wy wszyscy czytaliście mój artykuł.*

You all read my article

‘All of you read my article.’

c. **Wszyscy wy czytaliście mój artykuł.*

All you read my article

Rutkowski (2007) presents an analysis of intensifying *sam* as a floating/stranded quantifier (in the sense of Sportiche’s (1988) analysis of ‘all’). Rutkowski’s argumentation is based on the following examples:

(74) a. **Sami** chłopcy będą jeść banany. (Rutkowski 2007: 118)

Themselves boys will eat bananas

‘Only boys will eat bananas.’

b. Chłopcy **sami** będą jeść banany.

Boys alone will eat bananas

‘Boys will eat bananas alone.’

c. Chłopcy będą **sami** jeść banany.

Boys will alone eat bananas

‘Boys will eat bananas alone.’

The intuition is that *sam* and *wszystkie* ‘all’ are both specifiers of functional projections and that they can be “floated” in a similar manner.

However, as discussed in Miechowicz-Mathiasen (2011), there are a number of problems with this analysis. I show below that the NP-analysis proposed in this chapter does not face the same problems.

For instance, although Rutkowski’s analysis predicts the possible co-occurrence of quantifiers and numerals, given that they occupy different positions in QP, it does not explain why *sam* cannot co-occur with either of these (Miechowicz-Mathiasen 2011, 12):

(75) Spotkałem wszystkich siedmiu policjantów.

I-met all seven policemen

‘I met all seven policemen.’

(76) a. Wszyscy wielcy uczeni

All great scholars

b. Sami wielcy uczeni

Only great scholars

c. *Wszyscy sami wielcy uczeni

All only great scholars

d. *Sami wszyscy wielcy uczeni

Only all great scholars

(77) a. Sami policjanci

Only policemen

‘Policemen themselves’

b. *Samych siedmiu policjantów/*siedmiu samych policjantów

Only seven policemen/seven only policemen

‘Seven policemen themselves’

As already discussed, SC behaves exactly the same way:

(78) a. *Sam svaki čovek gleda TV. ‘Every man himself watches TV.’

Intens every man watches TV

b. *Sam neki/jedan čovek gleda TV. ‘Some man himself watches TV.’

Intens some/one man watches TV

c. *Mnogo samih ljudi gleda TV. ‘Many men themselves watch TV.’

Many intens men watch TV

On the NP-analysis that I argue for the explanation here lies in the semantics of the intensifier: *sam* can only combine with proper names and definite NPs denoting single individuals or groups, since only definites and proper names denote principal ultrafilters.

Furthermore, as in SC, in Polish both the quantifier *wszyscy* and numerals may be either preceded or followed by possessives; however, *sam* may only precede them (see Sections 4.2 and 4.3) (Miechowicz-Mathiasen 2011, 12-13):¹²

¹² One may argue that by incorporating the semantics of *sam* into this DP-based approach the problematic examples in (76)-(77) could be accounted for. But then if the facts can be captured via the interpretative properties of *sam* alone, the syntactic argument for the existence of DP in Polish does not carry weight at

- (79) a. Moje trzy książki b. Trzy moje książki
 My three books Three my books
 ‘My three books’ ‘Three of my books’
- (80) a. Wszystkie moje książki b. Moje wszystkie książki
 All my books My all books
- (81) Same moje książki ważą tonę (*Moje same książki...)
 Only my books weigh a ton
 ‘Just my books weigh a ton.’

Also, the intensifying *sam* cannot be preceded by a demonstrative pronoun and remain an intensifier in Polish; in such constructions *sam* is immediately perceived as an attributive adjective (Miechowicz-Mathiasen 2011, 17):

- (82) Ta sama królowa odwiedziła moją babcię.
 This same queen visited my grandmother
 ‘The same queen visited my grandmother.’

The intensifying *sam* must precede the demonstrative (e.g., (83a)). Regular attributive adjectives, on the other hand, are rather awkward when forced to precede a demonstrative, as shown in (83b) (Miechowicz-Mathiasen 2011, 18):

all. More importantly, the facts in (81)-(83) below involve the same ordering paradox as in SC, and cannot be fixed simply by adopting the semantics of *sam*.

(83) a. Sam ten chłopak nie zauważył, że go okradli.

Even that boy not noticed that him robbed

‘Even that boy himself did not notice that he had been robbed.’

b. ??Głupi ten chłopak nie zauważył, że go okradli.

Stupid that boy not noticed that him robbed

‘That stupid boy did not notice that he had been robbed.’

This is exactly the pattern we observe in SC, which is a serious problem for the DP analysis because it creates an ordering paradox, as shown in Sections 4.2 and 4.3. That is, the question here is if the position of the adjective *sam* is fixed below the null D head, why do then demonstratives and possessives necessarily follow it, when on most DP analyses these elements are structurally higher than D, either as specifiers of DP, or as part of some higher functional structure? The same problem does not arise under the NP analysis given that on this analysis IntensifierP projected by the intensifier *sam* dominates the whole NP with all its modifiers, as illustrated below:

(84) [_{IntensifierP} *Intensifier* [_{NP} *Demonstr.* [_{NP} *Poss.* [_{NP} N]]]]].

On the NP analysis, therefore, the intensifier is predicted to precede demonstratives, possessives, and adjectives.

Turning to the interpretative properties of the intensifier, the meaning of *sam* in (85a) is different from the one in (85b/c) (Miechowicz-Mathiasen 2011, 15). That is, only *sam* in (85a) has the intensifying meaning, while *sam* in (85b/c) does not. Such meaning

contrasts are completely unexpected if the examples in (85) are indeed instances of quantifier float.

(85) a. **Sami** chłopcy będą jeść banany. (Rutkowski 2007: 118)

Themselves boys will eat bananas

‘Only boys will eat bananas.’

b. Chłopcy **sami** będą jeść banany.

Boys alone will eat bananas

‘Boys will eat bananas alone.’

c. Chłopcy będą **sami** jeść banany.

Boys will alone eat bananas

‘Boys will eat bananas alone.’

Furthermore, as opposed to quantifiers and numerals, the intensifying *sam* cannot undergo LBE, which is rather unexpected given that it is assumed to be a simple adjective on Rutkowski’s analysis (recall that simple adjectives also undergo LBE):

(86) a. Wszystkich_i widziałem t_i lingwistów. (LBE quantifier...noun)

All_{GEN} I-saw linguists_{GEN}

‘I saw all the linguists.’

b. Siedmiu_i widziałem t_i policjantów. (LBE numeral...noun)

Seven_{GEN} I-saw policemen_{GEN}

‘I saw seven policemen.’

c. *Samych_i widziałem t_i lingwistów.

*LBE sam...noun

Only I-saw linguists.

‘I saw only linguists.’

(Miechowicz-Mathiasen 2011, 13)

On the other hand, this is expected if the intensifier projection dominates the NP, as shown in (84) above.

The fact that pronouns precede quantifiers by itself is not a strong argument for the existence of D in Polish. Quantifiers and numerals are argued to involve functional projection (i.e., QP) even by non-DP proponents (e.g., Bošković 2010b, Despić 2009a, Chapter 2) so the apparent movement of pronouns need not necessarily be to D. For instance, we can assume that pronouns in Polish move to Spec of QP. This movement in SC would be optional since in SC both orders are clearly available (e.g., (87)). In fact, there is no evidence which conclusively shows that pronouns in Polish move higher than QP.

(87) Pet njih je došlo. b. Njih pet je došlo.

Five them_{GEN} aux_{3SG} arrived Them_{GEN} five aux_{3SG} arrived

‘Five of them arrived.’

The only numerals which pronouns must precede in SC are paucals 2, 3, and 4. As I argue in Despić (to appear b), this is because pronouns in SC do not have paucal number, hence they cannot stay in the scope of paucal numerals.

(88) *Dva njih / ✓ njih dva su došla.

Two them_{GEN}/ them_{GEN} two aux_{3PL} arrived

‘Two of them arrived.’

It needs to be stressed here again that the absence of DP does not entail in any way a complete absence of all nominal functional projections. Linde-Usiekniewicz & Rutkowski (2007), for instance, argue that according to Bošković’s (2005) model, numerals must be analyzed as NP-internal (similarly to adjectives and other modifiers) (Linde-Usiekniewicz & Rutkowski 2007: 114), which is clearly an erroneous inference (see Bošković 2009a for discussion of similar issues). In particular, in their discussion of Polish coordination examples such as (89) they state that the NP-over-AP analysis, adopted in this work, appears to be correct.

(89) a. Słodka herbata i kawa

Sweets_{SG} tea and coffee

‘Sweet tea and coffee’

b. Słodka herbata i ~~słodka~~ kawa

sweets_{SG} tea and sweets_{SG} coffee

The adjective *słodka* ‘sweet’ in (89a) shows singular (not plural) agreement. This fact is on the NP-over-AP approach accounted for quite straightforwardly via AP ellipsis under identity, as shown in (89b). In contrast to (90a) below, in which each NP conjunct is modified independently, the coordinated phrase consisting of two NPs in (90b) cannot be

treated as a single plural constituent with respect to adjectival modification, hence plural agreement on the adjective in (90b) is ungrammatical. On the NP-over-AP analysis, this contrast obtains because the adjective does not occur outside of the NP.

- (90) a. Gorzka herbata i gorzka kawa
 Unsweetened_{SG} tea and unsweetened_{SG} coffee
 ‘Unsweetened tea and unsweetened coffee’
- b. *Gorzkie [_{ConjP} herbata i kawa]
 Unsweetened_{PL} tea and coffee

However, Linde-Usiekniewicz & Rutkowski argue that the example in (91) below cannot be analyzed in the same way simply because of its meaning: *nine hundred* applies to the whole group of professors, PhD students and MA students. Thus, QP has to be external to the coordinated NP here.

- (91) Dziewieciuset profesorów, doktorantów i magistrantów
 Nine-hundred professors PhD-students and MA-students
 ‘Nine hundred professors, PhD students and MA students’

Linde-Usiekniewicz & Rutkowski argue that this should not be allowed on the NP-over-AP model in general which, they claim, requires QPs to be NP-internal modifiers. This is simply not correct.

The logic behind Bošković's (2005) proposal is that DPs and NPs, but not APs, can function as arguments. In a language like English this assumption has no relevant consequences, since DPs always dominate APs. In a language like SC, due to the lack of DP, APs would end up functioning as arguments if they dominated NPs. Consequently, APs do not dominate NPs in languages like SC, hence the name NP-over-AP. QPs are not APs, however, and they can clearly function as arguments, so NP-over-AP does not in any way entail NP-over-QP (e.g., Bošković 2009a, 2010b, Despić 2009a (see also Chapter 2) in fact propose no-DP-analyses on which (at least some) QPs are NP-external).

4.5 Conclusion

In this chapter I have reviewed probably the strongest argument for the existence of null D in SC proposed by Progovac (1998). Namely, Progovac argues on the basis of an asymmetrical distribution of nouns and pronouns in constructions with the intensifier *sam* that SC pronouns are located in D. I have developed an alternative, “no-DP” analysis of this phenomenon and I demonstrated that the DP analysis has no significant advantages over it. In fact, I have presented a number of specific syntactic, morphological and semantic arguments that point towards the superiority of the no-DP analysis. The consequence is a model of NP in which the noun is the unique head and demonstratives, possessors and adjectives are all modifiers of that head.

To derive the noun/pronoun asymmetry I have proposed that in contrast to other modifiers, the intensifying adjective *sam* projects a phrase on its own, and that it is clitic movement of pronouns to this phrase that creates the observed asymmetry. Assigning a

separate projection above NP to the intensifier enables us to explain in a non-circular way why the noun/pronoun asymmetry arises only with this modifier, and not with others, which, on this account, are adjoined to NP. Given that clitic movement is taken to be the operation that drives the asymmetry, we directly account for why only pronouns end up preceding the intensifier, whereas reflexives and nouns, which do not have deficient, clitic forms, obligatorily follow it. The fact that the raised pronoun needs to be linearly adjacent to the intensifier also follows given that the result of clitic movement is the creation of complex head.

I have also proposed that, since the intensifier in question is always in focus, the clitic pronoun spells out as strong in PF to satisfy the prosodic requirements of focus. In other words, although it takes the strong form, the pronoun in these cases is in fact a “camouflaged” clitic; I have presented evidence which shows that the pronoun here exhibits interpretative properties generally attributed to clitics/deficient pronouns thus it can function as a bound variable and have <-human> referents.

Finally, I have shown that the presence vs. absence of the intensifier projection correlates with differences in binding, exactly as predicted by the theory of Conditions B and C presented in Chapter 2.

Appendix: More on Two Types of Pronouns and the Montalbetti Effect

In this appendix I would like to address some additional facts concerning the two pronominal types in SC which deserve to be mentioned.¹³ As already pointed out, in contrast to deficient pronouns, only strong pronouns can be used in, what Cardinaletti and Starke (1999) call, ‘ostension’ situations. Thus, if a new referent is introduced in the discourse, by, say, pointing to a person in a group (which is correspondingly marked with ☞ in the examples below), only the strong pronoun is possible:

- (1) a. J(e) { *☞la } ai aidé { ✓☞elle }. French
I her_{DEF} have helped her_{STR}
- b. Pomogao sam { *☞joj } / { ✓☞njoj }. SC
Helped am her_{DEF} her_{STR}
‘I helped ☞her.’

I will to argue here on the basis of this fact that the defining property of “genuine” strong pronouns is that they always introduce new referents into the discourse. This proposal can be formulated in the following way:

- (2) *Genuine Strong Pronouns* always introduce a new (<+hum>) referent into the discourse.

¹³ For a more detailed discussion of the facts in question see Despić (2008).

Another way of stating (2) would be to say that a feature like [new referent] is the minimal difference in the feature specification of SC deficient and strong pronouns. The basic idea is that a specification with the feature [new referent] entails semantic animacy (of the human kind, since we talk about referents). It follows from this that a 3rd person pronoun bearing [new referent] will obligatorily be interpreted as [+human]. In contrast, there is no entailment that a 3rd person pronoun lacking this feature is interpreted as [+human] or [-human]. This feature, thus, gives us the difference in the [+/-human] interpretation between SC “genuine” strong pronouns and clitics/deficient pronouns, discussed in this chapter.

As for the cases involving focus, discussed earlier in the chapter, I will assume that the feature [focus] may be present in the morpho-syntactic representation. The question of choosing a strong pronominal form instead of a clitic/deficient form when pronouns are modified by focus then becomes an issue of exponency. Thus, we may posit a rule in morphology which automatically inserts the strong form (e.g., /njega/) instead of the deficient form (e.g., /ga/), when the element in question is assigned the feature [focus]. This would explain why strong pronouns may exceptionally function as bound variables or be interpreted as non-human when they are in focus (see section 4.3.3). Alternatively, we can assume that when a deficient/clitic pronoun is marked as [focus] it is supported with the stem *nj-* in PF in order to accommodate the prosodic prominence required by that feature; as discussed in Chapter 5 SC clitics may be viewed as pure agreement affixes that attach to the stem *nj-*.¹⁴

¹⁴ The latter alternative may not work for languages in which morphological forms of different types of pronouns are not as straightforwardly related to each other as they are in SC (see Chapter 5 for a detailed discussion of the morphological properties of SC pronouns).

Given these assumptions, a strong form pronoun in the present system can either be deficient underlyingly, but pronounced as strong (i.e., a “camouflaged clitic”), or a true strong pronoun. This model also explains why true/genuine strong pronouns cannot be modified by the intensifier *sam*. Consider the following examples:

- (3) a. ☞ **On** me je opljačkao.
 He me_{ACC} is robbed
 ‘He robbed me.’
- b. # ☞ **On sam** me je opljačkao.
 He intens me_{ACC} is robbed
 ‘He himself robbed me.’

In contrast to (3b), it is perfectly felicitous to utter (3a) in a situation in which you want to explain to the police who robbed you by pointing out to a person who hasn’t been previously mentioned. (3b) is ruled out in such contexts due to the semantics of the intensifier *sam*, which in order to produce the *centrality effects* requires the referent of the nominal it modifies to already be established in a given context (see section 4.3.2). In other words, since a “genuine” strong pronoun always introduces new <+hum> referents, by assumption (see (2)), it is always incompatible with the meaning of the intensifier. This, of course, does not hold for deficient pronouns which are not characterized by the feature [new referent] (this rules out the possibility of the strong pronoun in (3b) being a camouflaged weak pronoun).

Going back to bound variable constructions, the model proposed here explains why focalized pronouns are not subject to the so-called “Montalbetti effect”. As already discussed, Montalbetti (1984) observes that overt subjects in Spanish (and Italian) cannot function as bound variables, as opposed to *pro* (i.e., only (4b) can have bound interpretation):

(4) a. Muchos estudiantes creen que ellos son inteligentes.

Many students believe that they are intelligent

b. Muchos estudiantes creen que *pro* son inteligentes.

Many students believe that *pro* are intelligent

‘Many students_i believe that they_i are intelligent.’

(Montalbetti, 1984: 82)

Montalbetti develops an approach along the lines of Higginbotham’s (1983) Linking theory of binding, essentially attributing this distinction to the intrinsic opposition between overt and null elements/arguments:

(5) *Overt Pronoun Constraint (OPC)*

Overt pronouns cannot link to formal variables iff the alternation overt/empty obtains

Montalbetti also observes that, similarly to SC, Spanish displays the OPC effects in clitic configurations. Thus, only (6a) can be interpreted as a bound variable structure ((6b) is an

instance of clitic doubling where the most embedded pronoun is strong) (Montalbetti, 1984: 139). Given the OPC, as stated above, Montalbetti argues that in addition to the clitic there is actually an empty pronominal element within VP in (6a), i.e., on Montalbetti's analysis it is not the clitic itself that is being bound, but the silent pronominal element, since the alternation obtains between empty and overt elements.

- (6) a. Muchos estudiantes_i creen que Juan *los* vio [e]_i.
 Many students believe that John them_{CLITIC} saw
- b. *Muchos estudiantes_i creen que Juan *los* vio [a ellos]_i.
 Many students believe that John them_{CLITIC} saw them_{STRONG}
 'Many students believe that John saw them.'

The problem here is that overt pronouns can function as formal variables, exactly when they are in focus, not only in SC, but in Romance as well. Consider the following examples from Italian and Spanish:

- (7) a. Ogni ragazzo_i pensa che solo lui_i é intelligente. (Italian)
 Every boy thinks that only he is smart.'
 'Every boy_i thinks that only he_i is smart.'
- b. Todo estudiante_i piensa que sólo él_i es inteligente (Spanish)
 Every student thinks that only he is smart
 'Every student thinks that only he is smart.'

In contrast to Montalbetti, I argue that the relevant contrast here is not empty vs. overt, but deficient vs. strong, where the difference between the two is minimally expressed through the feature [new referent]. True strong pronouns cannot be construed as variables because they introduce new referents; the feature [new referent] makes them incompatible with a bound interpretation. The pronouns in (7), on the other hand, are only pronounced as strong, but they are in fact deficient underlyingly (see also (62) in section 4.3.3 which shows that superficially strong focalized pronouns can have [-human] referents).

Finally, the analysis suggested here also sheds light on certain puzzling properties of *Backwards Anaphora* in SC. Unlike in English, where backwards anaphora is easily licensed, the grammaticality of this type of constructions in SC largely depends on whether the pronominal subject (or object) is deficient, or strong.

(8) a. Kada je *pro*_i ušao u sobu, Jovan_i je počeo plakati.

When is entered in room Jovan is started crying

‘When he entered the room, John started crying.’

b. *Kada je on_i ušao u sobu, Jovan_i je počeo plakati.

When is he entered in room Jovan is started crying

Note that the contrast in (8) resembles the Montalbetti effect, but his analysis makes no predictions in this respect, whereas the present approach does. If strong pronouns always introduce new referents, the oddness of (8b) is expected, i.e., it is pragmatically very unmotivated to introduce a new referent with a pronoun and then refer to it by a proper

name, and not by a deficient pronoun already available in the language's inventory. It is then no surprise that replacing the proper name in (8b) with a *pro* renders the sentence completely acceptable:

(9) Kada je on_i ušao u sobu, *pro*_i počeo je plakati.

When is he entered in room *pro* started is crying

'When he_i entered the room, he_i started crying.'

The structure in (8a), on the other hand, is acceptable because *pro* does not impose the same interpretation requirements as the overt pronominal subject; i.e., it basically scans for the first referent available - this can be either *Jovan*, or some other referent provided by the context. Notice also that interpreting the overt pronominal subject in (8b) as in focus, which would license the strong form given the above discussion (i.e., the strong pronoun in this case would be analyzed as a "camouflaged" deficient pronoun, and would not necessarily bear the [new referent] feature), does not improve the construction in question. However, it is very hard, if not impossible, to come up with a context which would include some set of alternatives to which the pronominal subject stands in opposition, and then retrieve back to the referent's proper name.

Note also that in English Backwards Anaphora of the type under consideration is always good since pronouns in English do not come in two types (see (10) below). Importantly, however, languages like Spanish behave exactly like SC with respect to the Backwards Anaphora contrast illustrated in (8) (see Luján 1985, 1986, Larson and Luján

1984, among others). Thus whereas the null pronoun (*pro*) is naturally understood as coreferent with *Juan* in (11), the overt pronominal subject (*él*) is not:

(10) ‘When he_i works, John_i doesn't drink.’

(11) Cuando *pro*_i/**él*_i trabaja, Juan no bebe.

When he work_{PRES/3SG} Juan neg drink_{PRES/3SG}

‘When he works, John doesn't drink.’

(Larson and Lujà 1984: 3)

To sum up, I have argued here that a variety of phenomena related to the Montalbetti effect and Backwards Anaphora can receive a unified account on the assumption that strong pronouns are characterized by the feature [new referent].

CHAPTER 5

DP/NP AND DEFINITE ADJECTIVES

5.1 Introduction

SC definite adjectives have become an unavoidable topic in discussing properties of SC NP. Their form, meaning and distribution have very often been used as evidence for the existence of DP in SC. The dominating type of analysis is that these adjectives in one way or another signal the presence of a refined functional domain within NP (Aljović 2002, Cinque 2010, Leko 1999, Rutkowski and Progovac 2005), which in turn supports the basic tenets of the UDPH. This chapter challenges these analyses and aims to show that they fail to account for a number of important morpho-phonological generalizations.

Many languages exhibit two forms of adjectives whose distribution is largely determined by the definiteness of the noun phrase they form a part of. This is evident for example in Scandinavian languages like Icelandic and Faroese, and Slavic languages like Old Russian and SC. Thus, in the SC example below the form of the adjective determines whether the subject NP is interpreted as definite or indefinite:

- | | |
|--|---------------------------------------|
| (1) a. Mlad- i čovek je stigao. | b. Mlad- \emptyset čovek je stigao. |
| Young _{DEF} man is arrived | Young _{INDEF} man is arrived |
| ‘The young man has arrived.’ | ‘A young man has arrived.’ |

These forms are usually referred to as *long* and *short*; it is actually not clear whether the distinction between them can always and only be linked to definiteness/indefiniteness, or whether there may be some other semantic properties involved (like specificity, for instance - see Aljović, 2002). The general consensus that I will follow here, however, is that the definiteness/indefiniteness distinction is the main semantic characteristic of these two adjectival forms.

In this chapter I examine the syntactic and morphological processes at play in the construction of adjectival and nominal forms in SC, as well as the determination of different surface categories. The more specific objectives are (a) to determine the morphosyntactic structure that underlies SC nouns and adjectives; and (b) to understand the principles behind the distribution of SC nominal and adjectival Case exponents. The analysis I present is built on the observation that the definite adjectival declension diachronically consisted of an indefinite adjective and anaphoric pronoun declining in parallel. In the system I develop, this is essentially implemented by assuming that the morphosyntactic structure of SC nouns and adjectives is quite similar in that both nouns and adjectives are characterized by the same root and Inflection Phrase (InflP), (i.e., the phrase that hosts agreement features), but that adjectives involve an extra projection between the category generating phrase *aP* and InflP. The head of this projection may host an operator which gives rise to definite interpretation, and is diachronically derived

from a pronoun. The presence of this operator forces the insertion of long-form adjectival endings. I argue that an analysis formulated this way, which is crucially based on the assumption that SC lacks D, not only captures the core syntactic and semantic properties of SC adjectives and nouns but also explains a number of puzzling morphophonological facts that have not been addressed in the previous literature.

Furthermore, the proposed analysis also offers a natural and principled way of accounting for the puzzling fact that the only two Slavic languages that lack long form adjectives, namely Bulgarian and Macedonian, are also the only two Slavic languages with definite articles. The arguments I develop are presented in the context of a particular conception of modularity in the grammar, namely the one advanced by the theory of Distributed Morphology.

The chapter is organized as follows. In section 5.2 I present the well-known morphosyntactic distinction between definite and indefinite adjectives in SC, as well as the syntactic and semantic aspects of this distinction. I briefly discuss some of the previous approaches to SC definite adjectives and introduce a set of facts that have not been addressed so far in the literature in the context of this sort of investigation. In section 5.3 I examine the internal structure of SC adjectives and nouns using various syntactic, morphological, and interpretative diagnostics. I present my own take on the morpho-syntactic structure underlying these elements and elaborate on the historical motivation behind my analysis. In this section I also examine the interpretative properties of the structure I propose and sketch its semantics. In section 5.4 I concentrate on the masculine declension and show how the analysis introduced in section 5.3 accounts for a number of morpho-phonological properties that characterize this declension. In the

Appendix I focus on the feminine declension and demonstrate that the proposed analysis also derives the complex distribution of the four pitch accent patterns in the feminine definite/indefinite paradigms.

5.2 Some Basic Facts

As already noted, in SC the form of the adjective determines whether the NP modified by the adjective is interpreted as definite or indefinite:

- | | |
|--|---------------------------------------|
| (1) a. Mlad- i čovek je stigao. | b. Mlad- \emptyset čovek je stigao. |
| Young _{DEF} man is arrived | Young _{INDEF} man is arrived |
| ‘The young man has arrived.’ | ‘A young man has arrived.’ |

The distinction between SC definite and indefinite adjectives is reflected through different morphological endings or through different stress patterns on the adjective. For example, when modifying masculine singular nouns, indefinite adjectives have a zero ending (e.g., (1b)), while definite adjectives have a long *-i* ending (e.g., (1a)). For these reasons definite adjectives are also called ‘long-form adjectives’, while indefinite adjectives are referred to as ‘short-form adjectives’. However, the overall picture is not that neat. As shown in the following paragraphs, there are many adjectives which have only long-forms, but are ambiguous with respect to definiteness. To avoid any confusion in this respect, I will continue to call the two types of adjectives ‘long- and short-form adjectives’ (and gloss them accordingly).

The example in (1) involves masculine declension nouns and adjectives, but the picture is more complicated in the case of the feminine declension. When modifying feminine nouns the distinction between the two types of adjectives is expressed by different vowel length (very roughly, a short vowel on the short-form adjectives and a long vowel on the long-form adjectives), and by different stress patterns on the adjectives. The distinction between the two types of adjectives in the feminine declension has not received a lot of attention in the literature so far, probably due to the complexity of the facts in question. In the Appendix to this chapter I show that the analysis I propose can account for the feminine declension facts as well.

In the most general case, both adjectival forms can be used attributively (2a), but only short forms permit predicative/copular use (2b):

(2) a. Pametan/pametn-i dečak

Smart_{SHORT/LONG} boy

‘A/the smart boy’

b. Dečak je jako pametan/*pametni

Boy is very smart_{SHORT/LONG}

‘The/a boy is very smart.’

The syntactic distribution of the two adjectival classes in SC is very similar to the one found in Old Russian. In Old Russian there seem to be no instances of long form adjectives being used in copular constructions. Also, short form adjectives were possible in attributive position, and were systematically interpreted as indefinite. Finally, Old

Russian long form adjectives were always associated with definiteness (see Bailyn 1994 for details):

(3) Distribution of Old Russian Adjectives:

	Long Form	Short Form
Copular:	no	yes
Attributive:	yes(def)	yes (indef)

As illustrated in (3), SC patterns in almost all respects with Old Russian, which is most obvious in nominative masculine contexts, for reasons to be discussed in section 5.4.

5.2.1 Previous Approaches to Long Form/Definite Adjectives

Previous approaches to SC long- and short-form adjectives have mainly been concerned with what the two types of adjectives can tell us about the syntactic properties of the DP/NP they modify. In other words, the form, meaning and distribution of SC long-form adjectives have been used often as evidence for the existence of a refined functional domain within SC DP/NP (Aljović 2002, Cinque 2010, Leko 1992, 1999, Rutkowski and Progovac 2005, among others). However, there have been no attempts to thoroughly explore the morpho-syntax of the adjectives themselves or to juxtapose the two adjectival case ending types with those found in SC nouns and pronouns. I argue that the analysis presented in the following sections not only accounts for the core properties of SC adjectives, but it also elucidates the nature of affixation in SC adjectives, nouns, and pronouns in general.

Aljović (2002), for instance, argues that SC long- and short-form adjectives are related to the noun they modify via two different strategies. While long-form adjectives occupy specifiers of various functional projections within the noun phrase (e.g., Cinque 1994), short-form adjectives adjoin to a maximal projection in the noun phrase (e.g., Bernstein 1993, Valois 1991, among others). This is illustrated in (4) (Aljović 2002, 34):

- (4) a. [FP [_{Spec} AP_{long}] [F' F° [NumP...]]]
 b. [NumP AP_{short} [NumP...]]

For Rutkowski and Progovac (2005), the long form morphology of SC adjectives “...signals that a noun has moved across the adjective to some higher nominal projection.” (Rutkowski and Progovac, 2005: 10). Following Longobardi’s (1994) N-to-D movement analysis they assume that SC N moves to D covertly and that each time N moves across an adjective long form agreement on the adjective is triggered to govern/license the trace of N-movement. Then, whenever an adjective has the long form there is a higher nominal functional projection (e.g., ClassifierP, VocativeP...) to which the noun moves leaving a trace behind, which, by assumption, is responsible for the long form morphology.

Leko (1992) and Rutkowski and Progovac (2005) notice a curious property of SC adjectives. The so-called “idiomatic” or “classifying” adjectives obligatorily take the long form:

- (5) a. Slep-i miš
Blind_{LONG} mouse
'The/a bat'
'The blind mouse'
- b. Slep-Ø miš
Blind_{SHORT} mouse
'A blind mouse'/*'The/a bat'

Only (5a), where *slep* 'blind' takes the long form, can be interpreted idiomatically (i.e., 'bat'). (5b), on the other hand, can only mean 'a blind mouse'. (5a) can also be interpreted as a definite version of (5b): 'the blind mouse'.

Aljović (2000) also notices that strictly non-intersective adjectives, like *bivši* 'former', *navodni* 'alleged' etc., completely lack the short form – they only have the long form.

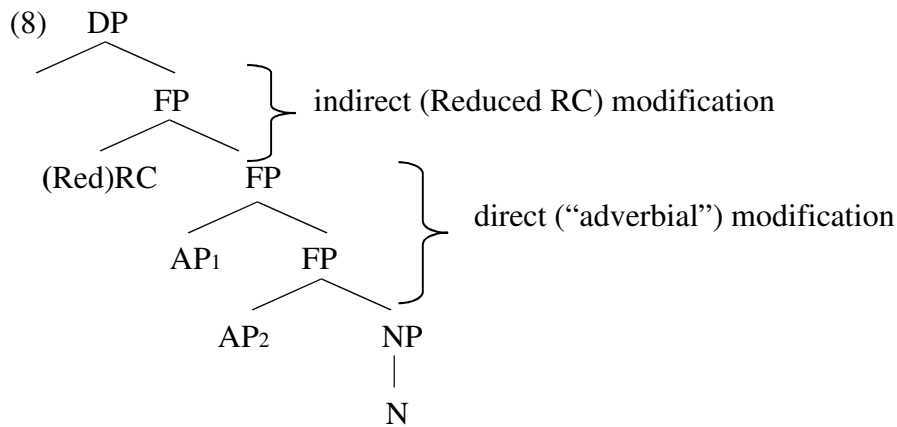
- (6) Bivši/ *bivš predsednik
Former_{LONG}/*_{SHORT} president
'The/a former president'

Neither strictly non-intersective nor “idiomatic” or “classifying” adjectives can be used predicatively (i.e., in copular positions):

- (7) a. *Miš je slep-i
Mouse is blind_{LONG}
- b. *Predsednik je bivši
President is former_{LONG}

Facts of this sort lead Cinque (2010) to propose that short-form adjectives display properties of indirect modification adjectives (which are derived from relative clauses),

while long-form adjectives can either have a direct modification source, or an indirect modification one, since they are systematically ambiguous between the two sets of properties associated with these two sources (Cinque, 2010: 99-102):



indirect (reduced RC) modification

- [Det. [stage-level
- [Det. [restrictive
- [Det. [implicit relative reading
- [Det. [intersective
- further away from the N

direct (“adverbial”) modification

- [individual-level NP]]]
- [non-restrictive NP]]]
- [modal reading NP]]]
- [non-intersective NP]]]
- closer to the N

The general picture that emerges is that if an adjective is, loosely speaking, predicative (i.e., if it can be used in copular constructions) it can have both forms, with the result that the long form induces definite interpretation. However, there a number of interesting facts which still need to be addressed properly.

First, if an adjective is not predicative it can have only the long-form, but it will not necessarily be interpreted as definite. Thus, the subject NP in (9) can be interpreted either as definite or indefinite, depending on the context:

(9) Bivši igrač Crvene Zvezde mu je dao ovaj dres.

Former player Red Star him is gave this jersey

‘A/the former Red Star player gave him this jersey.’

Second, there are adjectives which have only the long-form but can be used predicatively and do not have to be interpreted as definite:

(10) Ovaj miš je mal-i

This mouse is small_{LONG}

‘This mouse is small.’

The adjective mali ‘small’ simply lacks the short form (e.g., *mal ‘small’).

Third, for the majority of speakers the distinction between the two adjectival types is almost completely lost in non-nominative cases. Consider (11):

(11) a. Došao si pijan / *pijani.

Arrived are drunk_{SHORT/NOM} drunk_{LONG/NOM}

‘You arrived drunk.’

b. Video sam te % pijana / pijanog.

Seen am you_{ACC} drunk_{SHORT/ACC} drunk_{LONG/ACC}

‘I saw you drunk.’

While it is ungrammatical to use the nominative long-form adjective as a secondary predicate in (11a), the long-form secondary predicate in (11b) is perfectly fine. In fact, the short-form inflection in constructions like (11b) is often felt as old-fashioned, and as having a special stylistic effect (though much inter-speaker variation exists).

Fourth, many quantifiers in SC are morphologically adjectival, but they can only have the long-form:

- | | |
|-------------------------------------|-------------------------------------|
| (12) a. Svaki /*svak doktor | b. Neki /*nek doktor |
| Every _{LONG/*SHORT} doctor | Some _{LONG/*SHORT} doctor. |
| ‘Every doctor’ | ‘Some doctor’ |

Finally, only definite adjectives can be used as proper names, nicknames or definite common nouns:

- | | | |
|--|------------|------------|
| (13) a. *Lépa | /✓Lêpa: | je stigla. |
| Beautiful _{INDEF} /beautiful _{DEF} | is arrived | |
| ‘The beautiful one has arrived.’ | | |
| b. *Tih | /✓Tihi | je stigao |
| Silent _{INDEF} /silent _{DEF} | is arrived | |
| ‘The silent one has arrived.’ | | |
| c. *Mláda | /✓Mlâda: | je stigla. |
| Young _{INDEF} /young _{DEF} | is arrived | |
| ‘The bride has arrived.’ | | |

Lèpa: (definite form)/‘the beautiful one’ or *tihi* (definite form)‘the silent one’ need not combine with a noun – in addition to having the indicated meanings (i.e., the one who is ...) they are often used as a proper name, or a nickname, respectively. Similarly *mlâda*: can either mean ‘the young one’ or ‘bride’. Indefinite (short) forms, on the other hand, can either be indefinite NP modifiers or predicates, but they can never function as arguments.

In the next section, I present a new analysis of the facts at hand. The main objective of this analysis is to provide morpho-syntactic structures of SC nominal elements and a set of rules that determine different surface representations, which can account for the distribution of case endings in SC adjectives, nouns and pronouns and at the same time be compatible with the interpretative properties of the two adjectival types presented in this section.

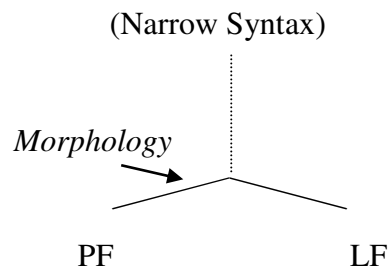
5.3 The Morpho-Syntax of SC Nouns and Adjectives

5.3.1 The Framework

So far, details of the morphological derivation and lexical insertion were not essential to my analyses. Since in this chapter these issues do matter, I will adopt a particular model of morphology, namely *Distributed Morphology* (Halle and Marantz 1993, 1994, Embick and Halle 2005, among others). This model advances a piece-based view of word formation, in which the syntax/morphology interface is as transparent as possible. In this theoretical framework the syntactic component generates (via *Merge* and *Move*) an

abstract representation which in turn serves as the input to two interpretative components, as given in (14).¹ This theory is a syntactic theory of morphology, where the basic building blocks of both syntax and morphology are the following primitives: (i) *Abstract Morphemes*, such as [past] or [plural], which are composed of exclusively non-phonetic features, and (ii) *Roots*: such as \sqrt{Mlad} which are sequences of complexes of phonetic features, along with abstract indices, other diacritics (e.g. class features).

(14) The Grammar

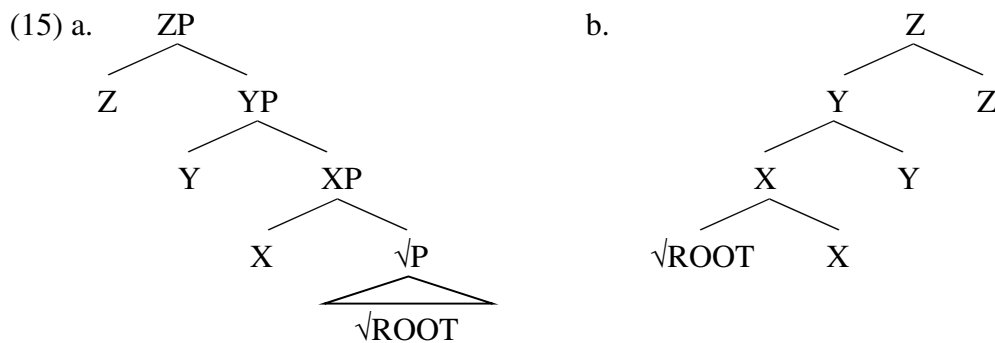


Roots and abstract morphemes are combined into larger syntactic objects, which are moved when necessary. In the morphological component a mapping procedure takes a syntactic structure as its input and incrementally alters it in order to produce a phonological form. The feature bundles created by the tree-building operations of the narrow syntax serve as targets for Vocabulary Insertion (Marantz 1995), which assigns phonological exponents to abstract morphemes, that is, to morphemes without phonological features. There are also PF rules that linearize the hierarchical structure generated by the syntax (for details see Embick and Halle 2005, Embick and Noyer 2001, Halle and Marantz 1993).

¹ The model in (14) is generally called Y-model, which is adopted here for ease of exposition.

The exponents may be underspecified for the environment of insertion. When a given structure is subject to more than one rule of lexical insertion, the selection is subject to the Subset Principle (Marantz 1995), by which the most highly specified exponent is inserted. This aspect of the theory will become very important in the discussion of SC adjectives and nouns.

I assume that in the normal case, words are formed by the syntactic process of head movement. A complex head created by head movement has the form $\sqrt{\text{ROOT-X-Y-Z}}$, where X, Y and Z are functional heads linearized as suffixes. (15a) illustrates a structure prior to head movement, and (15b) a complex head created by head movement:



5.3.2 *The Proposal*

The standard analysis of the diachronic derivation of long-form (definite) adjectives in Slavic is that they were “formed by adding the anaphoric pronoun *j-* to the forms of the indefinite adjective. The coalescence of these forms yielded the definite or pronominal inflection of the adjective” Schenker (1993:91) (see also Halle 1995, Halle and

Matushansky 2006, among others). The paradigm of the anaphoric pronoun *j-* is given in Table I, and the composition of definite adjectives in Table II (Schenker 1993: 90-91).

Table I

	SG			DU			PL		
	M	N	F	M	N	F	M	N	F
NOM	-jъ	je	ja	ja	ji		ji	ja	jě/ję
ACC			jо				jě/ję		
GEN	jego		jejě jeje	jeju			jixъ		
DAT	jemu		jeji	jima			jimъ		
INSTR	jimъ		jejo				jimi		
LOC	jemъ		jeji	jeju			jixъ		

Table II

			Late Proto-Slavonic	Old Church Slavonic
NOM SG	M	starъ+jъ	starъjъ	staryi/starъi [starъjъ]
	N	staro+je	staroje	staro[j]e
	F	stara+ja	staraja	staraja
ACC SG	F	starо+jо	starоjо	starоjо
GEN SG	M/N	stara+jego	starajego	stara[j]ego
				staraago (with assimilation)
				starago (with contraction)

This is morphologically clearly evident in modern SC, as noted by many authors working on this topic (e.g., Aljović 2002): whereas the endings of long form adjectives (almost entirely) correspond to pronominal clitics and the endings on strong pronouns, the endings of short form adjectives correspond to those found on nouns. In traditional grammars these inflectional types are therefore called Pronominal (*zamenička*) and Nominal (*imenička*) paradigms (e.g., Stevanović, 1962; see also Browne 1993).

I will label the two sets of endings that characterize these two paradigms as the ‘Pronominal Set’ (PS) and the ‘Nominal Set’ (NS), respectively.²

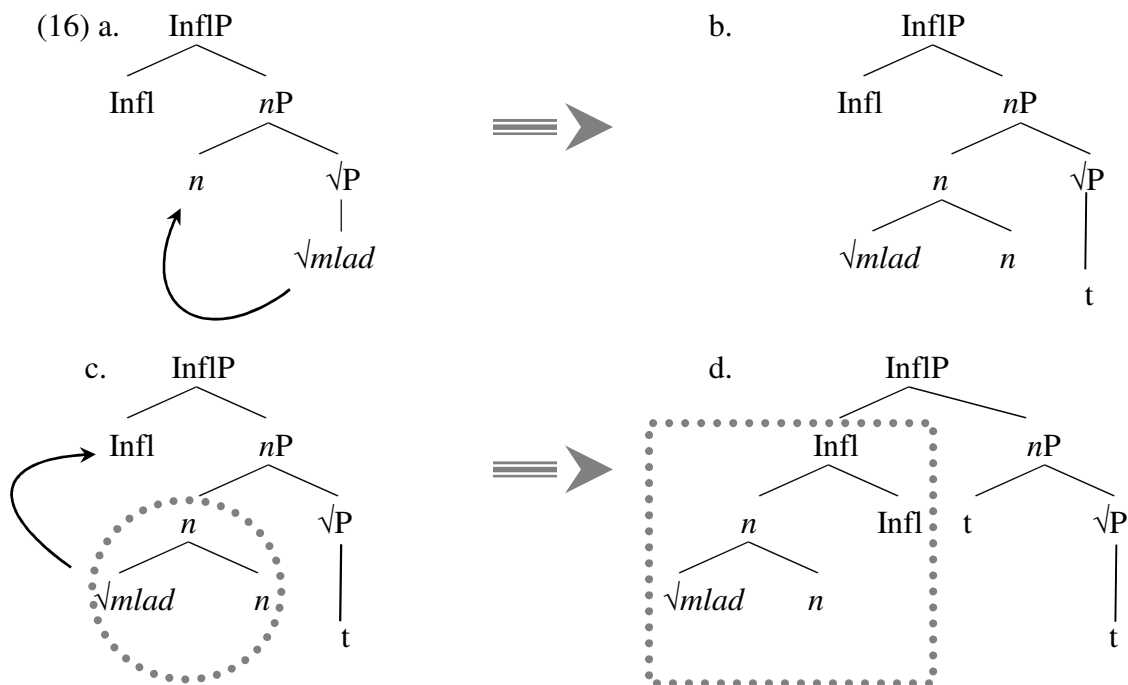
Table III ‘bad boy’

Pronominal Declension					Nominal Declension	
SG	Adj _{DEF}	Noun _{MASC}	Pronoun _{3P-SG-M}	Clitic _{3P-SG-M}	Adj _{INDEF}	Noun _{MASC}
Nom	loš- i	dečak	on	<i>pro</i>	loš	dečak
Gen	loš-e- g(a)	dečak-a	nje- ga	ga	loš- a	dečak- a
Dat	loš-e- m(u)	dečak-u	nje- mu	mu	loš- u	dečak- u
Acc	loš-e- g(a)	dečak-a	nje- ga	ga	loš- a	dečak- a
Ins	loš- im	dečak-om	nj- im	-	loš- im	dečak- om
Loc	loš-e- m(u)	dečak-u	nje- mu	-	loš- u	dečak- u

Proto-Slavic had about thirty suffixes for adjective formation; in addition it had both short and long adjectives. The only two Slavic languages that do not distinguish two adjectival inflections at all are interestingly enough the only two Slavic languages that have definite articles: Bulgarian and Macedonian. This is a very interesting fact to which I will return. In other Slavic languages the distinction between the two forms is still preserved at least to some extent.

Taking these diachronic facts and the assumption about the word formation (e.g., (15)) as a starting point, I will first argue that SC nouns are morpho-syntactically derived in the following way:

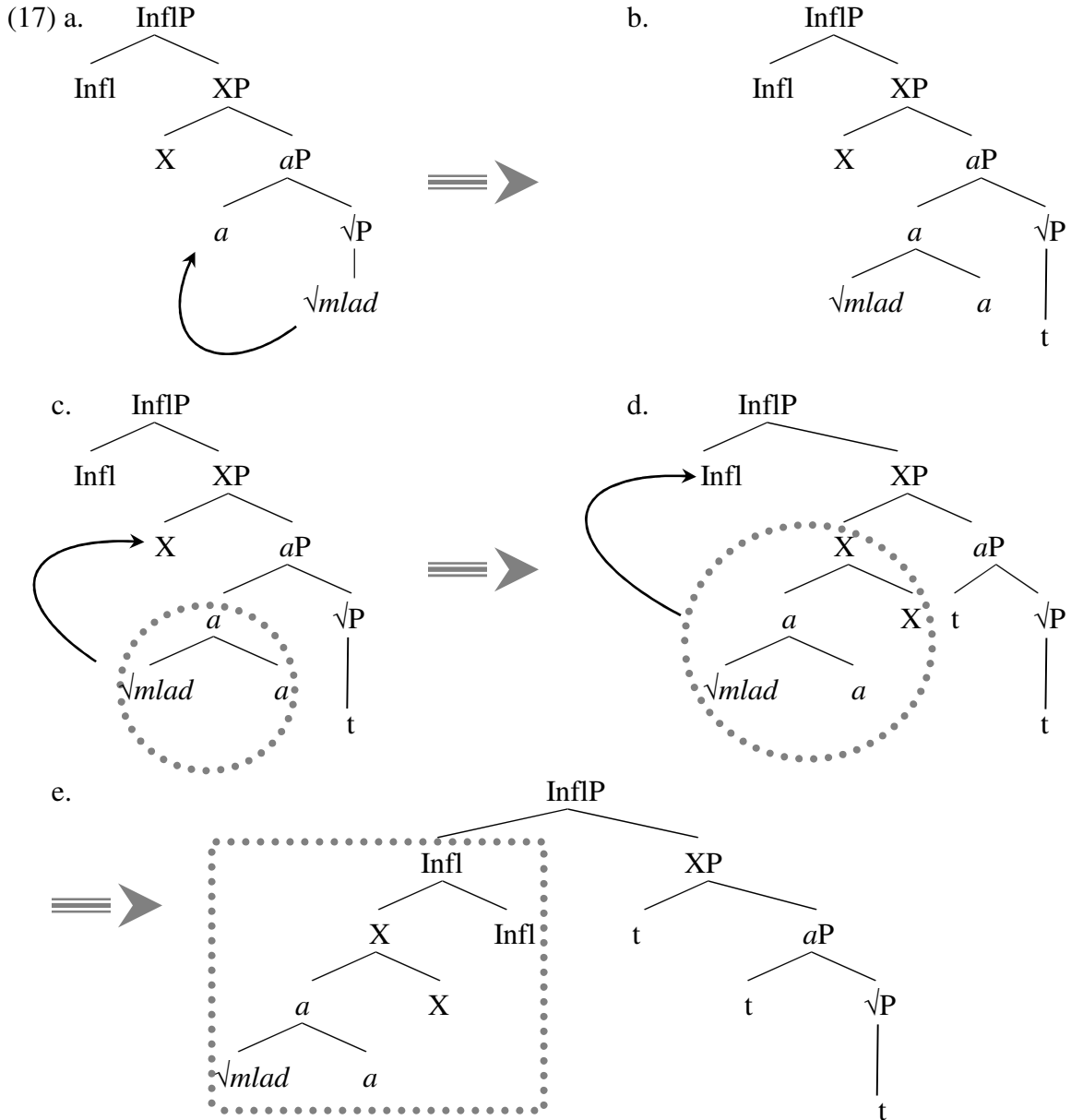
² I view paradigms as an expository device only, not included in the speaker’s knowledge of language (Bobaljik 2002b, 2008b) (I come back to this issue below).



After linearization, the complex head in (16d) has the form $\sqrt{mlad-n-Infl}$, where n is the head of the category phrase (=noun). Its exponent in Vocabulary Insertion in this particular example is $-i\acute{c}$, but it could have also been for instance $-ost$, generating the noun $mlad-ost$ ‘youth’. Infl is the head that hosts the agreement features gender, number and case; it represents one terminal node.

I argue that the structure of SC adjectives includes an additional functional projection that nouns lack. It is this extra functional projection that may contribute definite interpretation and trigger the so-called ‘definite’ morphology. Below I give the full derivation of the definite adjective $mlad-i$ ‘young_{DEF}’, where the additional projection is labeled XP:³

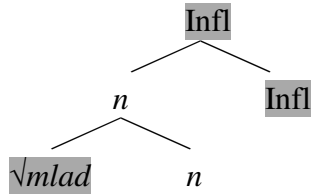
³ I will return later to the issue of how these structures fit with the proposals made in the previous chapters.



The linearized version of the complex head in (17e) is \sqrt{mlad} - a - X - $Infl$. On the present view, SC nouns and adjectives are characterized by the same $Infl$ head, which considerably reduces the complexity of the system, and they involve the same root. What makes adjectives different from nouns (apart from the category-generating head a) is the additional projection XP between aP and $InfIP$:

(18)

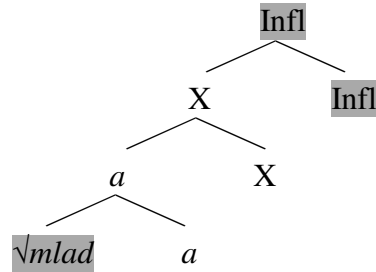
Nouns



√mlad-n-Infl (n= 'ić')

mladić 'young man'

Adjectives



√mlad-a-X-Infl (a = ∅)

mlad 'young'

Now, as observed in the previous section, there are a number of facts that need to be accounted for. First, only nouns and predicative adjectives have the NS endings while definite adjectives, non-predicative adjectives, adjectival quantifiers and pronouns have the PS endings. Second, only adjectives that can have both forms are necessarily interpreted as definite in the long-form. This is summarized in Table IV:

Table IV

	PS	NS
Nouns	*	✓
Predicative As	✓ (definite interpretation)	✓(indefinite interpretation)
Non-predicative As	✓ (definiteness not entailed!)	*
Quantifiers	✓	*
Pronouns	✓	*

The intuition central to my proposal concerns the interpretative nature of predicative adjectives and nouns in general. Nouns and predicative adjectives share many semantic properties and they form a natural class in that they both denote sets. I propose that NS affixes are 'sensitive' to this, whereas all other elements which are characterized by PS

endings lack this property of denoting simple sets. In a framework such as Distributed Morphology this is captured by making the latter less highly specified. More precisely, during Vocabulary Insertion, which assigns phonological exponents to abstract morphemes, the exponents may be underspecified for the environment of insertion. When a given structure is subject to more than one rule of lexical insertion, the selection is subject to the Subset Principle (Marantz 1995). As a consequence, the most highly specified exponent is inserted.

Let us then assume that the rule that inserts NS endings/exponents is specified for an environment denoting a set. In particular, I propose that category-generating heads of nouns and predicative adjectives are marked for denoting sets even in the syntax. They bear a special diacritic, which is visible to Morphology and which triggers insertion of NS items. Whenever this condition is not satisfied the less highly specified elements, or the elsewhere items (i.e., PS exponents), are inserted. The analysis obviously relies on a somewhat controversial assumption that Morphology is sensitive to semantic features and that at least some of them may be encoded in the syntactic structure of nouns and predicative adjectives. Enriching our ontology of function elements is not something to be very proud of, but I hope that the reader will find this assumption justified in light of the presented empirical facts. The proposal is nevertheless still quite restrictive since the claim is that only the most elementary semantic type may be visible to the (narrow) syntax: sets (or characteristic functions thereof) of type $\langle e, t \rangle$. This will be represented by a corresponding diacritic (labeled ET) which is in turn visible to Morphology and purely morphological processes. So, whenever category heads a and n have a predicative/type

<e,t> interpretation they are marked with the diacritic ET. This will be true for all nominal heads, but only for those adjectival heads that head predicative adjectives.

Consider first the Vocabulary Insertion rules: the rule that inserts items from the Nominal Set is more highly specified and conditioned by the presence of the diacritic ET, whereas the Pronominal Set items are inserted as less highly specified:

- (19) a. [masculine, singular, nominative] ↔ Ø/]_{ET}+_____ (NS)
 [masculine, singular, nominative] ↔ i/ elsewhere (PS)
- b. [masculine, singular, genitive] ↔ a/]_{ET}+_____ (NS)
 [masculine, singular, genitive] ↔ ga/ elsewhere (PS)
- c. [masculine, singular, dative] ↔ u/]_{ET}+_____ (NS)
 [masculine, singular, dative] ↔ mu/ elsewhere (PS)

The list is not complete but it illustrates the point. In (19a), for example, /Ø/ from the Nominal Set is mapped to Infl during Vocabulary Insertion if the preceding structure is specified with the diacritic ET (i.e., nouns or predicative adjectives). If this condition is not satisfied a Vocabulary Item from the Pronominal Set is inserted.

In addition, I will assume that the head of XP projected only in adjectives may optionally host an operator, which is semantically responsible for definite interpretation of long form adjectives in SC; this is what makes SC adjectives special. Crucially, if this operator is present, the head X that hosts it will be marked with a corresponding diacritic visible to Morphology, as much as *n* and *a* heads mentioned above are marked with the ET diacritic. I will later discuss the semantic nature of this operator, but what is sufficient

to know for the present discussion is that it contributes a definite interpretation and marks the head X with a special diacritic, which I have labeled E_{XP} . Such a diacritic may look like a new-fangled notational device, but the distinctions it is meant to express are anything but new, as already observed in the previous section. No other semantic types are marked with diacritics in narrow syntax.

The E_{XP} and ET diacritics are subject to percolation (e.g., Leiber 1992, Baker and Bobaljik 2002, etc.). I adopt the following two feature percolation conventions (Leiber, 1992: 92):

Head Percolation

- Morphosyntactic features are passed from a head morpheme to the node dominating the head. Head Percolation propagates the categorical signature.

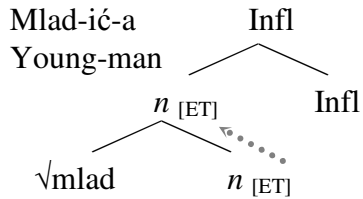
Backup Percolation

- If the node dominating the head remains unmarked for a given feature after Head Percolation, then a value for that feature is percolated from an immediately dominated non-head branch marked for that feature. Backup Percolation propagates only values for unmarked features and is strictly local.

To illustrate how this works, step through the following derivation of a noun. First, head movement creates the complex head structure in (20) which serves as an input to Morphology. Second, the n head is marked with the ET diacritic which by Head Percolation percolates up to the higher n node. Third, this structure satisfies (19b) and the

more highly specified, NS exponent is inserted (again, the exponent of *n* is *-ić-*, but it could have been, for instance, *-ost-* deriving *mlad-ost* ‘youth’).

(20) Nouns *Mladića*_{GENITIVE} ‘Youn-man_{GENITIVE}’ (*Head Percolation* applies)

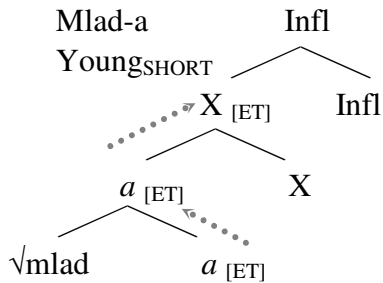


$n = ić$;
 Infl (masculine, singular, genitive) = *a*
 ((19b) applies; first clause)

The structure of an indefinite adjective in (21) minimally differs from the one in (20) in that it includes the XP projection between *a*P and InflP. The head *X* does not host the definite operator, so it does not bear any diacritic. The Backup Percolation rule applies and the ET diacritic from the *a* node percolates up. As in the case of the noun derivation, the more highly specified rule is satisfied and the NS exponent is inserted.

(21) Adjectives – Short form adjective – *X* does not host a pronoun:

*Mlada*_{GEN} ‘young_{GEN}’ (*Backup Percolation* applies)

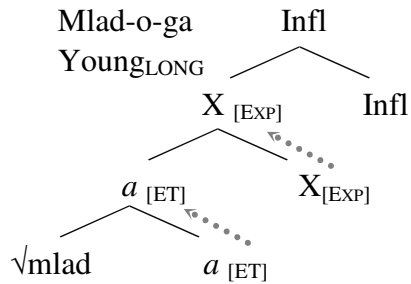


$a = \emptyset$; $X = \emptyset$
 Infl (masculine, singular, genitive) = *a*
 ((19b) applies; first clause)

Importantly, however, since there is no operator in *X* the semantic component will interpret (21) as indefinite. Consider now (22), where *X* hosts the definiteness operator:

(22) Adjectives – Long form adjective – X hosts the definiteness operator:

*Mladoga*_{GEN} ‘young_{GEN}’ (*Head Percolation* applies)



$a = \emptyset; X = \emptyset$

Infl (masculine, singular, genitive) = ga
 ((19b) applies; second clause)

Here, the E_{XP} diacritic that marks the operator in X percolates up via the Head Percolation rule. The Infl node is no longer adjacent to an ET marked complex after linearization and the second clause in (19b) inserts the less highly specified PS item –ga. At the same time, due to the presence of the definiteness operator in the semantic component the adjective will be interpreted as definite.

The direct prediction of this approach, then, is that all elements that inflect for case, number and gender which do not denote sets will always surface with the PS endings. This is borne out since, as discussed in the previous section, strictly non-intersective adjectives, idiomatic adjectives, quantifiers, pronouns etc., surface exclusively with the PS endings.

Now, one may wonder if the proposal of this chapter affects in any negative way the analysis presented in the previous chapters, in particular Chapter 2. That is, an objection may be raised with respect to whether postulating InflP above *nP* would affect the binding analysis presented in that chapter. If InflP dominates the possessor in (23a-b) below then there would be no Condition B and C violation, respectively, since the possessor would not c-command the object NP, according to the c-command definition in (23c):

(23) a. * Kusturicin_i najnoviji film ga_i je zaista razočarao.

Kusturica's latest film him is really disappointed

'Kusturica_i's latest film really disappointed him_i.'

b. * Njegov_i najnoviji film je zaista razočarao Kusturicu_i.

His latest film is really disappointed Kusturica

'His_i latest film really disappointed Kusturica_i.'

c. X c-commands Y iff X and Y are categories, X excludes Y and every category that dominates X dominates Y (X excludes Y if no segment of X dominates Y).

That is, if the possessors in (23a-b) were adjoined to *nP*, rather than to *InflP*, then they would be dominated by *InflP*. The sentences in question would then be predicted to be good, contrary to fact. This is not what I assume, of course. In particular, I assume that SC possessors are adjoined to *InflPs*, not *nPs*. More precisely, *InflP* stands for what has been labeled as NP or AP in the previous chapters, and it represents a more fine grained morpho-syntactic structure of nouns and adjectives (i.e., NP and AP are basically abbreviations of (the different types of) *InflP*).

For the purposes of the Vocabulary Insertion, however, I claim that nouns and adjectives share the same *Infl* node. If there were two different *Infl* nodes for nouns and adjectives, then we would expect this difference to be reflected in the type of case exponents they appear with. This is not the case, however, as shown above: nouns and predicative adjectives are characterized with one type of case endings, while strictly non-intersective adjectives, idiomatic adjectives, definite adjectives, quantifiers, pronouns

etc., with another. My proposal is that it is not the category labels *a* and *n* that are relevant for the insertion of the case exponents, but rather the diacritics E, ET, and E_{XP}.

5.3.2.1 On the Semantics of the Definiteness Operator

So far I have mainly focused on the morpho-syntax of SC nouns and adjectives, and in this section I will outline some semantic aspects of my analysis.

It is certainly not controversial to assume that quantifiers and pronouns do not denote sets. As for strictly non-intersective adjectives, the traditional account of “non-intersective” modification (e.g., Siegel 1976a, Kamp and Partee 1995; Partee, in press, etc.) assumes that these adjectives take the noun-denotation as their argument. That is, an adjective like *bivši* ‘former’ or *navodni* ‘alleged’ is traditionally taken to denote a function from properties to sets (i.e., type of $\langle\langle s, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle$), rather than just sets. Similar can be said about so-called ‘idiomatic’ or ‘classifying’ adjectives like *beli medved* ‘polar bear’ (lit. ‘white bear’) or *slepi miš* ‘bat’ (lit. ‘blind mouse’). Adjectives in these phrases obviously do not simply intersect with the nouns they modify, and it is certainly plausible to assume that they are semantically complex, as strictly ‘non-intersective’ adjectives are. Thus, the *a* head of a strictly non-intersective adjective is never marked with ET and consequently the rule which inserts the more highly specified item can never be satisfied. Consequently, these adjectives always have the long form (i.e., they end with the PS endings).

Now, before I offer my proposal regarding the semantic nature of the definiteness operator, which I have argued may occupy the head of XP and trigger the insertion of PS

endings, it is important to point out that, as discussed in Chapter 3, definiteness of NPs in SC is in general determined contextually (as discussed in Chapter 3). Thus, (24) is ambiguous with respect to (in)definiteness:

(24) Pazi! Mačka je ušla u kuhinju.

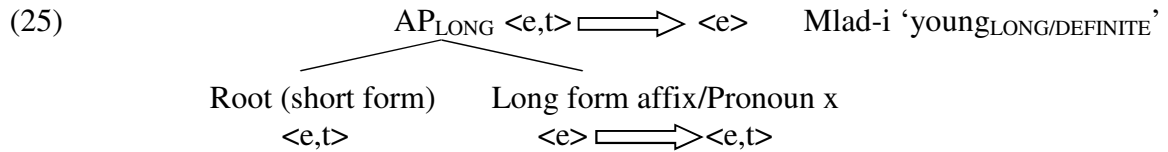
Watch out cat is entered in kitchen

‘Watch out. The/a cat entered the kitchen.’

Ambiguities of this type, which characterize languages without definite articles, are standardly explained via type-shifting operations (e.g., Partee 1987, Chierchia 1998). In Chierchia’s (1998) terms, in such languages, NPs can freely shift from pred to arg, i.e., from $\langle e \rangle$ to $\langle e, t \rangle$, depending on a variety of factors, including contextual information.

I will assume here that the definiteness operator in question, which is responsible for the definite interpretation of definite adjectives, is in fact a special kind of pronoun, which can undergo type shift operations more easily than ‘regular’ pronouns. This assumption, which is supported by the morphological evidence presented in the previous section, is directly compatible with the observation that definite adjectives diachronically consisted of an indefinite adjective and anaphoric pronoun declining in parallel, and that the definiteness effects are due to the presence of some pronominal element.

Consider the structure in (25), where the definiteness operator in question is labeled ‘pronoun x’:



We can assume that a sort of type shift operation turns this pronoun to type $\langle e, t \rangle$ before it combines with the adjective. This could be Partee's (1987) *ident*, which is a total, injective operation mapping any element into its singleton set. The singleton set combines with the adjective via Predicate Modification (e.g, Heim and Kratzer 1998), yielding a correct interpretation for $\text{mladi}_{\text{DEF}}$, which denotes a singleton set whose only member is 'young'. Since in SC (in)definiteness of a noun phrase is generally determined contextually, as shown above, it should not be controversial to assume that there is another shifting operation which turns $\langle e, t \rangle$ to e . This operation would be similar to Partee's (1987) *iota*, which maps any singleton set onto its member. Now, *iota* may or may not apply to $\text{mladi}_{\text{DEF}}$ immediately. If it applies immediately, the result will be the "argumental" long-form adjective. That is, in SC only long-form adjectives can function as arguments, as already noted:

- (26) a. *Lépa /✓Lêpa: je stigla.
 Beautiful_{INDEF}/beautiful_{DEF} is arrived
 'The beautiful one has arrived.'
- b. *Tih /✓Tihi je stigao
 Silent_{INDEF}/silent_{DEF} is arrived
 'The silent one has arrived.'

c. *Mláda /✓Mlâda: je stigla.

Young_{INDEF}/young_{DEF} is arrived

‘The bride has arrived.’

Again, *lépa*: (definite form)/‘the beautiful one’ or *tihi* (definite form)‘the silent one’ need not combine with a noun – in addition to having the indicated meanings (i.e., the one who is ...) they are often used as a proper name, or a nickname, respectively. Also *mlâda*: can either mean ‘the young one’ or ‘bride’.⁴ Indefinite (short) forms, on the other hand, can either be indefinite NP modifiers or predicates, but they can never function as arguments.⁵ So, the only grammatical meaning that, say (27), where the adjective takes the indefinite form, may have is that of a secondary predicate (with the word order slightly modified to make it more appropriate):

(27) Stigla je lépa.

Arrived is beautiful_{INDEF}

‘She arrived beautiful.’

⁴ Aljović (2002) argues that long-form adjectives in SC occupy specifiers of various functional projections within the noun phrase and that short-form adjectives adjoin to a maximal projection in the noun phrase. One of the arguments that Aljović offers is ellipsis. Aljović follows Lobeck’s (1995) suggestion that an elliptical element must be the complement of a head standing in an agreement relation with its Specifier (i.e., Spec-head agreement) and argues that for this reason noun ellipsis is possible only with long-form adjectives. A potential problem for this approach is posed by the constructions in (26), which show that not all instances of long form adjectives without nouns are derived via ellipsis (e.g., (26b), where *tihi* ‘silent’ is interpreted as a nickname). A more serious problem for Aljović’s account is the example in (i), which clearly shows that noun ellipsis is possible with short-form adjectives as well:

(i) Šta trezan čovek misli, pijan govori. *Proverb*
What sober_{SHORT} man thinks drunk_{SHORT} says
‘What a sober man thinks, a drunk one says.’

⁵ I still follow Bošković (2005) in assuming that APs in general cannot function as arguments (see Chapter 3). What enables long-form adjectives in SC to function as arguments is the presence of the definiteness operator.

On the other hand, *iota* may apply after the adjective combines with a noun, yielding a definite noun phrase (i.e., ‘the young president’).

Now, although short-form adjectives in SC are characterized by the same set of endings as nouns, they are, unlike nouns, necessarily interpreted as indefinite. That is, although nouns and short-form adjectives both denote sets, nouns can shift to type <e>, whereas short form adjectives cannot.

Chierchia (1998) argues that there is a fundamental principle in the architecture of grammar which says, roughly, ‘Language-particular choices win over universal tendencies’ (cf. the ‘Elsewhere Condition’), or ‘Don’t do covertly what you can do overtly.’ That is, a type shifting should not be used covertly if the language has an overt way of achieving the same effects. For instance, if there is a determiner D whose meaning is a particular type shift, then use of that operation as an automatic type-changing functor is blocked. Thus, the presence of the definite article in English blocks the type of shifting operations that are in general available in languages without definite articles. In such languages bare arguments occur freely and have a generic, definite, or indefinite meaning, depending on the context. So in very general terms, if these type shifting operations were available in English, we would then incorrectly expect English noun phrases with definite articles to easily shift between definite and indefinite meaning depending on the context.

Since SC does not have definite articles, it can freely apply covert type shifting operations in the case of nouns. In the case of adjectives, however, the existence of the definite operator blocks this general, covert way of applying shifting operation. In essence, definite adjectives in SC display an effect similar to the definite article in

English – in the domain of adjectives, SC has an overt way of achieving definite interpretation, so the covert type shifting operation is blocked.

Following this way of reasoning we can also say something meaningful about why the only two Slavic languages that have only short-form adjectives, namely Bulgarian and Macedonian, are at the same time the only two Slavic languages that have the definite article. If the definite article in Bulgarian and Macedonian has the semantics generally assumed for the definite article in English (i.e., type ,<<e,t>,e>), then we can assume that the existence of this article blocks the existence of the definiteness operator found in the long-form adjectives in SC, which creates the definiteness effect essentially via a type-shift operation. In other words, long-form adjectives, which are basically derived through combining short-form adjectives with a pronoun-like, type shifting operator, are blocked in Bulgarian and Macedonian due to the presence of the definite article in these languages.⁶

⁶ Germanic languages also have definite (weak) and indefinite (strong) adjectival forms. This is illustrated in (i) below from Icelandic (note that there are no indefinite articles in Icelandic):

- (i) a. Indefinite: **gulur** hani b. Definite: **guli** hani-**nn**
 yellow_{INDEF} rooster yellow_{DEF} rooster-the

This may seem at odds with what I say about Slavic, since the definite article and the two forms of adjectives co-exist in Germanic.

However, as pointed out in McFadden (2004), there is no evidence that the two adjectival inflections in Germanic were actually created by the suffixation of the pronoun. The same author notes that a minority of scholars have argued that the strong (indefinite) inflection in Germanic was created by the pronoun suffixation, as is the case for the Slavic long-form (definite) adjective inflection. The only justification for such accounts seems to be the parallel with Slavic, but this is also somewhat contradictory since the Slavic inflection in question (i.e., long form inflection) exhibits definiteness effects, whereas the Germanic strong inflection is used with indefinites. Then, the alleged suffixation of pronouns to adjectives in Germanic would have had to have very different semantic consequences. Also, while the Slavic forms show clear evidence of a well-attested Indo-European pronoun suffixed to the adjective, the Germanic forms do not show any.

An independent argument for this analysis may come from adjectives which are ambiguous between intersective and subsective readings. Consider the following SC examples:

(28) a. Dobar-Ø lopov je opljačkao predsednikovu kuću.

Good_{INDEF} thief is robbed president's house

'A good thief has robbed the president's house.'

✓Intersective (IS)-reading: ==> A person who is a thief and a good individual has robbed the president's house.

✓Subsective (SS)-reading: ==> A thief with good stealing skills has robbed the president's house.

b. Dobr-i lopov je je opljačkao predsednikovu kuću.

Good_{DEF} thief is robbed president's house

'The good thief has robbed the president's house.' (✓IS/*SS)

While (28a) is ambiguous between the intersective and subsective readings, (28b) only has the intersective reading. Note that this restriction in the interpretation does not depend on the choice of the noun. In all of the phrases in (29) the definite adjective contributes the meaning of a "good individual" and does not apply to the property of the noun:

(29) *Dobri lekar, dobri lopov, dobri policajac, dobri slikar...* only IS

Good doctor good thief good policemen good painter

Thus, the strongly preferred and for many speakers the only possible meaning of *dobri slikar* ‘good_{DEF} painter’ is “someone who is a painter and a kind individual”. This sharply contrasts with *dobar slikar* ‘good_{INDEF} painter’, which is easily interpreted as “a person who is a painter and good at painting” and has no entailment about the person’s individual qualities.

The traditional account of “non-intersective”/“subsective” modification (e.g., Siegel 1976a) assumes that subsective adjectives take the noun-denotation as their argument.⁷ They are of type $\langle\langle s, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle$, while intersective adjectives are of type $\langle e, t \rangle$, and they “intersect” with the noun. The distinction between intersective and non-intersective adjectives is taken to be largely lexical: some adjectival predicates take nominal predicates as arguments, some “intersect” with them and some do both. I will assume that an ambiguous adjective like *dobar* ‘good’ comes in two shapes (for more details see Despić 2009b, and Despić and Sharvit 2010). *Good* takes a degree argument (type d) and is ambiguous: *good*_{INTER-d} is for instance like ‘gray-haired’, as in (30), and *good*_{SUBJECTIVE-d} is like ‘former’:

(30) Intersective:

- a. $[[good_{INTER-d_2}]^{w,C}] = [\lambda x \in D: \text{context } C \text{ supplies an assignment, } g_C, \text{ and a scale of moral “goodness”, } GOOD_{C,w}. x \text{’s ranking on } GOOD_{C,w} \text{ is at least } g_C(2)].$

(When free, $[[d_2]]^{w,C} = \text{Standard}(GOOD_{C,w})$).

- b. $GOOD_{C1,w}$ – A scale that ranks men according to moral “goodness” in w .

$GOOD_{C2,w}$ – A scale that ranks thieves according to moral “goodness” in w .

⁷ The class of non-intersective adjectives consists of several sub-classes, including subsective adjectives, modal adjectives, privative adjectives, and possibly other sub-classes (see Kamp 1975, Kamp and Partee 1995, Partee, in press among others).

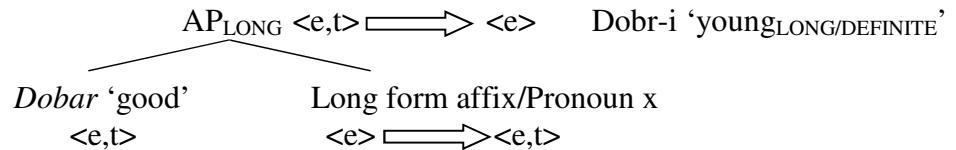
(31) Subsective:

- a. $[[good_{SUBSECTIVE-d_2}]^{w,C}] = [\lambda P \in D_{\langle s, \langle e, t \rangle \rangle}, \lambda x \in D: \text{context } C \text{ supplies an assignment, } g_C, \text{ and a scale, } S_{P,w}, \text{ that ranks individuals by their } P\text{-skills in } w. \text{ the ranking of } x \text{ in } w \text{ on } S_{P,w} \text{ is at least } g_C(2)]$
- b. Whenever defined, $[[John \text{ is a } [[_{Adj} good_{SUBSECTIVE-d_2}] [_N thief]]]^{w,C}] = [[good_{SUBSECTIVE-d_2}]^{w,C}([\lambda w' \in W. [[thief]]^{w',C}])](John) = \text{True iff John's ranking in } w \text{ on } S_{[\lambda w'. \lambda y. y \text{ is a thief in } w'], w} \text{ is at least } g_C(2).$

In contrast to $good_{INTER-d}$, $good_{SUBSECTIVE-d}$ is of type $\langle \langle s, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle$; it takes some property X as its argument and ranks individuals according to their X property-skills. The intuition is that the scale according to which this ranking is carried out cannot be supplied in the same way moral “goodness” scale is.

With these rather standard assumptions about intersective and subsective adjectives, we can explain the lack of the subsective reading of *dobar* ‘good’ in the definite, long-form.

(32) Intersective



In (32) $good_{INTER-d}$ combines with a singleton set, yielding another singleton set whose only member is morally good, which gives us the intersective reading. *Dobri slikar* ‘good_{DEF} painter’ would thus denote a singleton set whose only member is a painter and a good individual.

in the long form (just like *bivši* ‘former’), or at least ambiguous, contrary to fact. Also, for these approaches the fact that *bivši* ‘former’ or *navodni* ‘alleged’ can be interpreted either as definite or indefinite, in contrast to *dobar* ‘good’, is completely accidental.

Another prediction of the present approach is that adjectives like *dobar* in Bulgarian and Macedonian should be ambiguous with respect to intersectivity regardless of whether they are used in definite or indefinite contexts. There are no long-form adjectives in these languages, and no definite operator of the sort we find in SC that would restrict the meaning of *dobar*. Then, in these languages both the intersective and subsective *dobar* should be able to freely combine with nouns before they combine with the definite article. The prediction is borne out, as shown below.⁸

(34) Bulgarian:

a. Ivan e dobar kradets. (✓Intersective/✓Subsective)

Ivan is good thief

‘Ivan is a good thief.’

b. Dobr-ijat kradets pristigna. (✓Intersective/✓Subsective)

Good-def thief arrived

‘The good thief arrived.’ (Boris Harizanov, personal communication)

⁸ Recall from Chapter 3 that the definite article in Bulgarian appears suffixed to nominals, or, when these are modified by adjectives, suffixed to the first adjective.

(35) Macedonian:

a. Ivan e dobar kradec. (✓Intersective/✓Subsective)

Ivan is good thief

‘Ivan is a good thief.’

(Иван е добар крадец)

b. Dobr-iot kradec pristigna. (✓Intersective/✓Subsective)

Good-def thief has arrived.

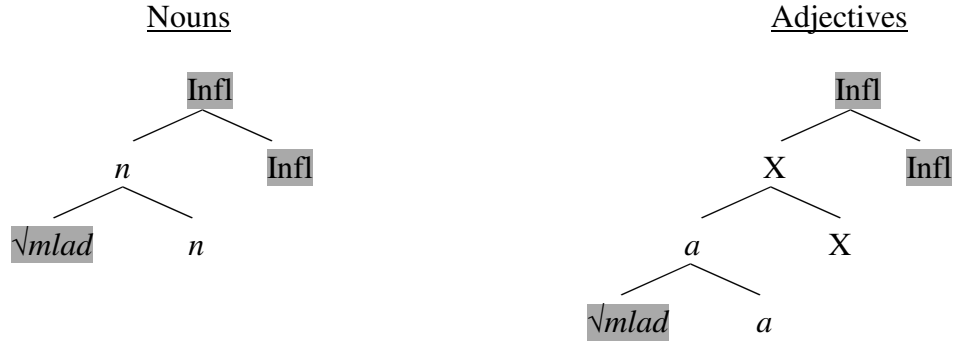
‘The good thief has arrived.’

(Добриот крадец пристигна) (Mira Bekar, personal communication)

5.3.2.2 Interim Summary

To briefly summarize, the assumptions which are crucial for the present analysis and which, I argue, account for the distribution of the two types of SC case endings are the following:

- (i) The morpho-syntactic structures of SC nouns and adjectives are quite similar. Nouns and adjectives are characterized by the same Infl node and root, which considerably reduces the complexity of the system. What makes adjectives different from nouns is the additional projection between *a*P and InflP:



(ii) *n* heads of nouns and *a* heads of predicative adjectives are marked with a special diacritic which corresponds to their unique interpretation (i.e., ET). The insertion of the more highly specified NS exponents requires adjacency to this diacritic. When this condition is not satisfied the less specified PS items are inserted. This obtains in the two following contexts:

- a. The category-generating heads do not have semantics characteristic of nouns and predicative adjectives, and hence are not marked with any diacritics.
- b. *a* is marked with the diacritic required for the insertion of NS exponents, but X hosts a definiteness operator, which contributes definite interpretation, and which is marked with another diacritic (i.e., E_{XP}). This diacritic percolates and blocks the application of the rule that inserts NS exponents.

In the following section I concentrate on the masculine declensions in SC and demonstrate how the analysis presented in this section accounts for some puzzling morpho-phonological facts.

5.4 The Masculine Declension

Consider Table III again:

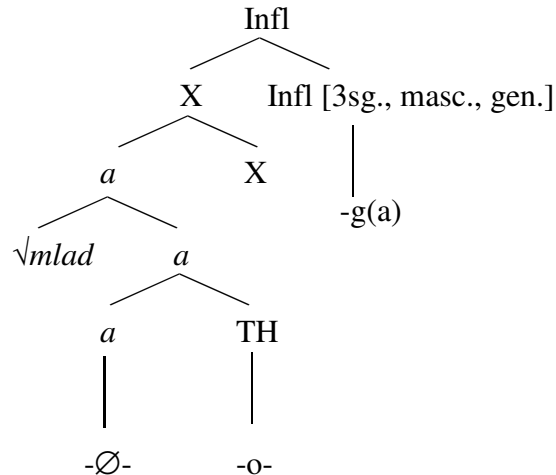
Table III ‘bad boy’

Pronominal Declension					Nominal Declension	
SG	Adj _{DEF}	Noun _{MASC}	Pronoun _{3P-SG-M}	Clitic _{3P-SG-M}	Adj _{INDEF}	Noun _{MASC}
Nom	loš- i	dečak	on	<i>pro</i>	loš	dečak
Gen	loš- e-g(a)	dečak-a	nje- ga	ga	loš- a	dečak- a
Dat	loš- e-m(u)	dečak-u	nje- mu	mu	loš- u	dečak- u
Acc	loš- e-g(a)	dečak-a	nje- ga	ga	loš- a	dečak- a
Ins	loš- im	dečak-om	nj- im	-	loš- im	dečak- om
Loc	loš- e-m(u)	dečak-u	nje- mu	-	loš- u	dečak- u

We first need to account for the vowel linearly preceding the PS ending in long-form adjectives; e.g., *-e-* in *loš-e-g(a)* ‘bad_{GEN}’. I treat these vowels not very differently from how Halle and Matushansky (2006) treat *-oj-* in Russian long form adjectives. Diachronically these vowels represent remnants of nominal declension endings to which anaphoric pronouns were added.⁹ Synchronically *-e-* is a theme vowel. Theme vowels are exponents inserted into Theme Positions, labeled as TH, which are added to the syntactic structure in Morphology in particular structural configurations to satisfy the well-formedness requirements of SC (e.g., Embick and Noyer 2006). TH nodes are *dissociated* nodes in the sense that they are not present in the syntactic part of the derivation, but they are rather added to *a* heads in Morphology:

⁹ Halle 1995: 45 makes a similar statement for Russian adjectives: “The inflected forms of the modern adjectives derive from forms in which the inflected adjective was followed by the inflected form of the 3rd person pronoun */j/*”.

(36)



There is, in fact, an alternation between *-o-* and *-e-* in this position. As observed in many Slavic languages, the choice between the two vowels depends on the type of the consonant preceding it. More precisely, if the consonant preceding it is historically “soft” (some palatal/palato-alveolar and affricate consonants today) the theme vowel surfaces as *-e-*, e.g., *vaš-e-ga* ‘yours_{GEN}’, *bivš-e-ga* ‘former_{GEN}’, *loš-e -ga* ‘bad_{GEN}’, and if the preceding consonant is historically “hard”, the vowel surfaces as *-o-*, e.g., *mlad-o-ga*, ‘young_{GEN}’, *navodn-o-ga* ‘alleged_{GEN}’.¹⁰

I also assume that clitic pronouns in SC are, as opposed to strong pronouns, simple heads (see Abels 2003a/b, Bošković 2001, Franks 1998, among others). These pronominal heads are in terms of the features they host (apart from Case) identical to Infl of the noun they co-refer with.

In the case of strong pronouns, on the other hand, a dummy host is inserted to support Infl (a clitic pronoun). It might be the case that *nje-* is inserted for all consonant initial elements (e.g., *njega*, *njemu* ...) and *nj-* for the only vowel initial element-

¹⁰ It is worth noting that some sounds that used to be “soft”, such as [r] and [č], became “hard” during the development of SC and can be followed by either [e] or [o] in modern SC, e.g., *mlinar-ov* or *mlinar-ev* ‘miller’s’, *kovač-ov* or *kovač-ev* ‘smith’s’ (see for instance Stanojčić and Popović, 1992: 50, and Stevanović 1962: 50-51).

instrumental *-im*. Or, more plausibly in my opinion, the dummy host is always *n-* and [e] is inserted to break up the unacceptable sequences of *[ng] and *[nm], which is followed by the palatalization of [n].

Note also that the final vowel of non-nominative long form adjectives may be dropped (see Table III). Thus *loš-e-g(a)* ‘bad_{GEN}’ may surface either as *loš-e-ga* or *loš-e-g*. The same adjective in dative surfaces as *loš-e-mu* or *loš-e-m*. However, the final vowel of dative/locative¹¹ long form adjectives may vary, and the choice depends strictly on what kind of theme vowel precedes it. If the theme vowel is *-e-* the final vowel in dative/locative will be *-u-* (e.g., *loš-e-mu*; **loš-e-me*). If, on the other hand, the theme vowel is *-o-* the final vowel is necessarily *-e-* (e.g., *lep-o-me* ‘beautiful_{DAT/LOC}’ (**lep-o-mu*); *jak-o-me* ‘strong_{DAT/LOC}’ (**jak-o-mu*). This vowel discrepancy is purely phonological and does not affect interpretation in any way. The quality of the final and theme vowel ultimately depends on the quality of the final consonant of the root. If the root ends with a historically soft consonant, the theme vowel is *-e-* and the final vowel in dative/locative is *-u-*, and if the final consonant of the adjectival root is historically hard the theme vowel is *-o-*, and the final vowel in dative/locative is consequently *-e-*. Table III’ illustrates the declension of an adjective whose root ends in a historically hard consonant:

¹¹ Dative and locative are completely syncretic in SC.

Table III 'beautiful boy'

Pronominal Declension					Nominal Declension	
SG	Adj _{DEF}	Noun _{MASC}	Pronoun _{3P-SG-M}	Clitic _{3P-SG-M}	Adj _{INDEF}	Noun _{MASC}
Nom	lep- i	dečak	on	<i>pro</i>	lep	dečak
Gen	lep-o- g(a)	dečak-a	nje- ga	ga	lep- a	dečak- a
Dat	lep-o- m(e)	dečak-u	nje- mu	mu	lep- u	dečak- u
Acc	lep-o- g(a)	dečak-a	nje- ga	ga	lep- a	dečak- a
Ins	lep- im	dečak-om	nj- im	-	lep- im	dečak- om
Loc	lep-o- m(e)	dečak-u	nje- mu	-	lep- u	dečak- u

Diachronically theme vowels represent remnants of NS endings to which anaphoric pronouns were added, and since the NS exponent for nominative is $-\emptyset$ -, nominative masculine long-form adjectives do not have theme vowels at all. The PS exponent for masculine nominative is *-i*-.

As for the *a* head, its exponent need not be $-\emptyset$ -. In contrast to *a* heads of *mlad* 'young', *loš* 'bad' or *lep* 'beautiful', *a* in many cases has an overt exponent, e.g., *-an-* in *ponos-an* 'proud', derived from *ponos* 'pride'.

5.4.1 PS Endings as Elsewhere Items

One of the crucial aspects of the current analysis is the assumption that PS endings are elsewhere items. This directly predicts that only the pronominal declension affixes may appear in "unexpected" contexts, which is supported by abundant evidence from Slavic and SC.

In modern Slavic only SC, and marginally Slovenian, retain the long form as a definiteness marker. In other languages adjectives with both forms use the short form after BE predicates and the long form elsewhere. However, the short form is on the decline in this function and is paradigmatically compromised (see Sussex and Cubberley

2006, 454). In other words, across Slavic the short form is disappearing and the long (pronominal) form is prevailing. Also, the distinction between the two forms is disappearing even in SC, at least in colloquial speech. In particular, the nominal declension of non-nominative adjectives is no longer productive and nowadays has a special stylistic, or archaic impact. At the same time, the pronominal declension has become more dominant and is quite commonly used for both definite and indefinite contexts in non-nominative cases.

Thus, in (37a) only the short form is possible in the position of a nominative secondary predicate, whereas in (37b) in which the secondary predicate is accusative, both forms are fine, and many speakers in fact disprefer the short form since it sounds archaic:

(37) a. Došao si pijan / *pijani.

Arrived are drunk_{SHORT/NOM} drunk_{LONG/NOM}

‘You arrived drunk.’

b. Video sam te % pijana / pijanog.

Seen am you_{ACC} drunk_{SHORT/ACC} drunk_{LONG/ACC}

‘I saw you drunk.’

Browne (1993, 327) notes that short genitives and datives/locatives like *nova* ‘new_{GEN}’, *novu* ‘new_{DAT}’ are most widespread in the Croat standard.

The instrumental short-form adjective does not end in *-om*, as we would expect, but in *-im* as in the pronominal paradigm:

Table III

Pronominal Declension				Nominal Declension	
Ins	loš- im	dečak-om	nj- im	-	loš- im dečak- om

Finally, there are also clearly predicative adjectives like *mali* ‘small’ which have exclusively long forms (e.g., Browne 1993, 327).¹²

(38) Ovaj rečnik je mali /*mal. ‘This dictionary is small’

This dictionary is small_{LONG} /small_{SHORT}

These facts are easily explained in the framework adopted in this chapter. To account for them I adopt Impoverishment: when certain features are deleted, the insertion of Vocabulary Items requiring those features for insertion cannot occur, and a less specified item will be inserted instead. The following Impoverishment rules delete the ET diacritic in different environments, and force the insertion of the PS exponents via (19).

- (39) a. ET → ∅ / a]_{ET} [-nom] (many speakers)
 b. ET → ∅ / a]_{ET} [+instr] (all speakers)
 c. ET → ∅ / X {X=√mal ‘small’ ...}

¹² In the Serbian standard the long form of *veliki* ‘big’ is strongly preferred, even in copular constructions:

(i) Ovaj rečnik je veliki /%velik.
 This dictionary is big_{LONG} / big_{SHORT}
 ‘This dictionary is big.’

The rule in (39a) deletes ET in the environment of non-nominative adjectives, and this rule holds for many speakers of SC. The rule in (39b), on the other hand, applies for all speakers since instrumental adjectives have exclusively pronominal endings. Finally, the rule that deletes ET in (39c) is specified for certain roots. It is simply a fact that certain roots and morphemes are subject to morpho-phonological processes in certain environments; all approaches must list which forms are subject to these rules in particular environments, and state what the rules are.

Importantly, none of these rules affect the interpretation of the forms in question since Impoverishment takes place in the morphological component. Thus, *mali* ‘small’ is perfectly fine in predicative positions even though it always surfaces with pronominal declension endings. The opposite, however, never happens: there are no environments in which a Nominal Set exponent appears in the position in which we would expect to see an element from the Pronominal Set. For instance, there are no adjectives that have exclusively short forms but are strictly non-predicative.

This analysis treats these patterns in a way that allows for strong syntax/morphology connections to be maintained and at the same time reinforces the separation of morphology and semantics. The mechanisms that are independently motivated in this framework, Vocabulary Insertion and Impoverishment, are capable of stating the relevant generalizations in a way that does not interfere with the general idea that sound-meaning relations are systematic.

At the same time, these facts favor a view whereby patterns of syncretism of this sort do not show that “paradigm” is a real object of grammar but rather the epiphenomenal product of various rules (see footnote 2). In the framework adopted,

paradigms are treated as epiphenomenal constructs arising from the combination of vocabulary items and Impoverishment rules in a given language. They are only an expository device and are not included in the speaker's knowledge of language. Impoverishment rules, which manipulate morphosyntactic feature structures for the purposes of vocabulary insertion, embody the hypothesis that true syncretism (as opposed to accidental homophony) will always be neutralizations to a lesser-marked form. The application of Impoverishment rules may create paradigmatic syncretism, and hence "paradigms", examples of which are, for instance, the syncretism of Macedonian 3rd person singular and 2nd person singular past verbal form discussed in Bobaljik (2002b), or the general pattern of modern SC adjectives, which admit only the pronominal affixes in non-nominative cases. However, Impoverishment may also cause completely arbitrary cases of syncretism, which create no "paradigms", e.g., the syncretism in the case of *veliki* and *mali* above. Thus, both the paradigmatic and the non-paradigmatic syncretisms in SC seem to be determined by a single Impoverishment rule which in turn gives support to the view that paradigms are to be treated as a consequence rather than as a real object of grammar (see Bobaljik 2002b and 2008b for discussion).

5.5 Summary

In this chapter I have proposed an analysis of SC definite adjectives which does not rely on a proliferation of functional projections in the nominal domain. I have presented the morphosyntactic structure underlying the SC nominal and adjectival declensions and the morpho-phonological rules that apply to it to derive the surface representations. I have

argued that this analysis not only captures the core syntactic and semantic properties of SC adjectives and nouns but also explains a number of puzzling morphological generalizations. During the discussion I have pointed out a variety of problems for the DP-based approaches to the two forms of adjectives in SC, arguing that they cannot be used as evidence for the presence of a refined functional domain within the SC NP and the existence of DP.

Under the proposed theory, the morphosyntactic structure of SC nouns and adjectives is quite similar, in that both nouns and adjectives are characterized by the same root and InFI_P; adjectives, however, involve an extra projection between *a*P and InFI_P. The head of this projection may host an operator which gives rise to definite interpretation, and at the same time forces the insertion of long-form endings. To account for the fact that nouns and predicative adjectives have identical endings I have suggested that the choice of the Case exponent depends mainly on whether or not the relevant category denotes a set.

I have also argued that the “pronoun-based” analysis developed in this chapter can meaningfully relate the description of SC adjectives in the modern language to their diachronic development, which the DP-based analyses have little to say about. Furthermore, I have shown that this analysis explains why Bulgarian and Macedonian, the only two Slavic languages with the definite article, are at the same time the only two Slavic languages without long-form adjectives. I have suggested that the existence of the definite article (i.e., DP) in Bulgarian and Macedonian blocks the availability of the pronoun-like, type shifting definiteness operator of the sort found in SC, and hence the existence of long-form, definite adjectives in these languages.

Appendix: The Feminine Declension

1. Introduction

In the previous sections I have focused exclusively on the masculine declension. Here I concentrate on the feminine declension.¹³ I argue that on the present analysis certain puzzling stress/accent readjustment facts that characterize this declension and which have not received a satisfactory account easily fall out. The central claim is that once we acknowledge that the obligatory final vowel length in the long form feminine paradigm indicates the presence of an underlying definite operator (which is diachronic remnant of the anaphoric pronoun), and that this vowel length may disrupt tone assignment in certain well-defined contexts, the distribution of tone in feminine long form adjectives no longer appears to be opaque and becomes fairly easily predictable. Thus, recognizing the final vowel length as a morpho-phonological “reflex” of an underlying definite operator constitutes the core assumption of this Appendix, and a special attention is paid to it. On other approaches, which are based on a proliferation of functional projections in the nominal domain, these facts are a complete accident.

The data in question are fairly well known but there have been no attempts to explain them. The major characteristic of the feminine declension is that, in contrast to the masculine declension, feminine long-form adjectives are morphologically identical to short-form adjectives.

This is illustrated in Tables V and VI:

¹³ I do not specifically discuss the neuter declension here. It is worth noting though that this declension displays characteristics of both the masculine and the feminine declension (see, for instance, Wechsler and Zlatić 2003 for details), hence the main points of this chapter go through for the neuter declension as well.

Table V

SINGULAR	Adjective _{DEF}	Noun _{FEM}	Pronoun _{3P-SG-FEM}	Clitic _{3P-SG-FEM}
Nominative	lêp- a:	žen- a	on- a	<i>pro</i>
Genitive	lêp- e:	žen- e	nj- e	je
Dative	lêp- o:j	žen- i	nj- oj	joj
Accusative	lêp- u:	žen- u	nj- u	je/ju
Instrumental	lêp- o:m	žen- om	nj- om	-
Locative	lêp- o:j	žen- i	nj- oj	-

Table VI

SINGULAR	Adjective _{INDEF}	Noun _{FEM}	Pronoun _{3P-SG-FEM}	Clitic _{3P-SG-FEM}
Nominative	lêp- a	žen- a	on- a	<i>pro</i>
Genitive	lêp- e	žen- e	nj- e	je
Dative	lêp- oj	žen- i	nj- oj	joj
Accusative	lêp- u	žen- u	nj- u	je/ju
Instrumental	lêp- om	žen- om	nj- om	-
Locative	lêp- oj	žen- i	nj- oj	-

As indicated in the shaded slots, the only difference is the ending in the locative/dative, which are otherwise always syncretic in SC: *-i* on nouns, and *-oj* on pronouns. Apart from explaining it away by positing a special locative/dative rule, I do not have much to say about this fact. For instance, the ending for both nouns and pronouns in locative/dative may be *-i*, but a special rule may in addition insert *-o* before the case ending in pronouns, which would in turn trigger the change of *-i* into *-j* in front of the back vowel at the end of the word (words generally do not end in *-oi* in SC, and alternations between [i] and [j] are quite common). But apart from locative/dative cases it is evident that feminine long and short adjectives are identical. However, there is an important difference in the phonological quality of these endings. As noted by many authors and as standardly described in traditional grammars (e.g., Stevanović, 1962: 165),

feminine declension long adjectives always end with a long vowel. In addition, some adjectives display certain accent readjustment in long forms, to which I return shortly.

I will assume that long vowel endings on pronouns and long-form adjectives are PS items, whereas short vowel endings that characterize nouns and short-form adjectives are NS items. I argue that the vowel length of the PS endings is diachronically a remnant of an assimilated pronoun. Recall from the section 5.3.2 that Schenker (1993) analyzes the formation of definite adjectives in Proto-Slavic and Old Church Slavonic as adding the anaphoric pronoun to the inflected indefinite form. Since, similarly to SC, feminine adjectives and (anaphoric) pronouns in these languages also had identical endings the result of the composition was a sequence [stara+ja] in nominative.¹⁴ I assume that diachronically [j] assimilated (e.g., [aa]), and that the long vowel ending synchronically represents the Pronominal Set. Like the masculine declension PS endings, the feminine PS endings are treated as “elsewhere” items, and they, in fact, have identical distribution.

First, all non-predicative feminine adjectives end in a long vowel: *bivša*: ‘former’, *buduća*: ‘future’, *navodna*: ‘alleged’... These are ungrammatical without the final vowel length (*bivša*(:)*, *buduća*(:)*), much as their masculine versions are ungrammatical without the masculine PS endings. The same holds for quantifiers, which obligatorily end in a long vowel: *svaka*(:)* ‘every’, *neka*(:)* ‘some’, etc.

Second, idiomatic feminine adjectives always end with a long vowel, as predicted. Thus, *crna: ovca* ‘black sheep’ can have the idiomatic reading (i.e., ‘a disreputable member of the family’) only if the adjective ends with a long vowel. If it ends with a short vowel the only available reading is the literal one.

¹⁴ For ease of exposition I limit my discussion here to nominative case (as mentioned in the previous sections, for many speakers the distinction between the two forms in the feminine declension is actually preserved only in nominative).

Finally, the above-mentioned exceptional adjective *mali* ‘small’, which only has the long form, obligatorily ends in a long vowel in the feminine declension: *mala:* ‘small’.

2. Accent Readjustments

I argue that the present analysis can account for a variety of interesting accent readjustment facts regarding SC feminine adjectives. Before presenting these facts I will briefly introduce basic properties of the SC accentual system. SC has traditionally been described as a pitch-accent language with four lexically contrastive accents: long falling, long rising, short falling and short rising, which are illustrated in (40) (Inkelas and Zec, 1988: 227):

- (40) a. Long Falling: *zâstava* ‘flag’ b. Short Falling: *jèzero* ‘lake’
c. Long Rising: *râzlika:* ‘difference’ d. Short Rising: *pàprika:* ‘pepper’

Only long accents are truly falling or rising since contours (i.e., changes of pitch within a single syllable) are found only with long vowels. For the sake of simplicity and expositional clarity, I translate the traditional accentual labels into the language of autosegmental phonology. In particular I will adopt Inkelas and Zec’s (I&Z hereafter) standard analysis. I&Z argue that the distribution of SC ‘accents’ is completely derivable in terms of tone: stress, by virtue of being totally predictable from tone, makes no contribution to lexical contrasts.

The most significant distinction between falling and rising accents is that the former reside within a single syllable, while the latter “stretch” over two syllables, the first of which is perceived as stressed. This is accompanied by the following distributional pattern:

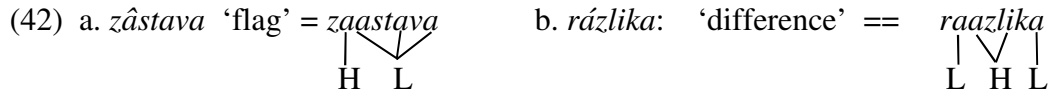
- Rising accents cannot appear on monosyllabic words and in polysyllabic words they can appear on any syllable other than the final one.
- Falling accents can appear only on the word initial syllable.

Thus, the only instance where the type of accent is not predictable from its location in the word is on the first syllable of polysyllabic forms. Restated in terms of tone, long vowels correspond to two adjacent V slots in the CV tier, and short vowels to one V slot, which accounts for the observation that contours are found only on long vowels. (41) exemplifies the short falling (40b) and the short rising (40d) translated into melodies composed of level High and Low tones.

(41) a. *jězero* ‘lake’ = $\begin{array}{c} j\acute{e}z\grave{e}r\acute{o} \\ | \quad \vee \\ H \quad L \end{array}$ b. *pàprika*: ‘pepper’ = $\begin{array}{c} p\grave{a}p\acute{r}i\acute{k}a \\ \vee \quad | \\ H \quad L \end{array}$

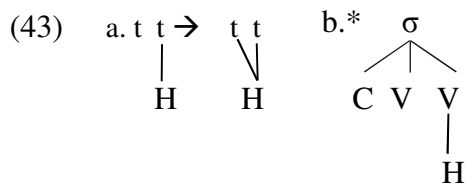
(Short Falling) (Short Rising)

Together with I&Z I interpret V slots as moras and assume that they are also tone-bearing units. Thus, if tones are linked to moras rather than to syllables, we get the right contours if we assume that the “long falling” accent is an HL sequence, whereas the “long rising” is an LHH sequence. For instance:



Thus, following I&Z, I restate the distributional differences given above as follows: (i) there are at most two (adjacent) level High tone moras per word; the remaining moras are Low, (ii) contours are found only on long vowels, and (iii) no long syllables may have a High.¹⁵

This is the standard approach to the essential properties of SC accents and it constitutes the starting point of many analyses dealing with this topic. To account for these general facts I&Z argue that the High tone spreads to the preceding syllable by (43a). Falling accents, which occur only on the first syllable of a word, consist of a High linked to the first V slot of a word (e.g., (40a-b)), and rising accents, which are found only in polysyllabic words, stretch over two syllables. To account for the fact that there are no High tones on long vowels, I&Z propose that a High cannot be linked to the second mora of a long vowel, as given in (43b) (i.e., although the configuration in (43b) can result from the application of spreading, it cannot constitute the starting point of spreading):



¹⁵ Halle (1997) argues that the SC accentual system is essentially identical to the one found in Russian. The claim is that underlying representations of many SC words are identical to those of their cognates in Russian. In both Russian and SC, like in many other languages with mobile stress, the main stress of the word is assigned a High tone, while Low tones are assigned to the rest. However, Halle observes that the main difference between the two languages is that in SC, but not in Russian, the High tone spreads to the preceding syllable, and he posits a rule similar to (43a) (see Halle 1997).

observed with *tužna* and *meka*), has a different accent – the short falling: *spòra*:. Similarly, the short form of the adjective *vrédna* ‘diligent’ has the long rising accent (*vrédna*), which changes to the long falling in the definite form (*vrêdna*:).¹⁶ *Zelena* ‘green’ in the short form has the short rising accent on the second syllable - *zelèna*. In the long form, however, this accent moves to the first syllable – *zèlena*:. All these adjectives are given in (45) together with their tonal representations:

(45)	a.	<i>tûžna</i> _{SHORT}	<i>tûžna</i> : _{LONG}	$\begin{array}{c} \text{tuužna} \\ \quad \diagdown \\ \text{H} \quad \text{L} \end{array}$	$\begin{array}{c} \text{tuužnaa} \\ \quad \diagdown \\ \text{H} \quad \text{L} \end{array}$	‘sad’
	b.	<i>mèka</i> _{SHORT}	<i>mèka</i> : _{LONG}	$\begin{array}{c} \text{meka} \\ \quad \\ \text{H} \quad \text{L} \end{array}$	$\begin{array}{c} \text{mekaa} \\ \quad \diagdown \\ \text{H} \quad \text{L} \end{array}$	‘soft’
	c.	<i>spòra</i> _{SHORT}	<i>spòra</i> : _{LONG}	$\begin{array}{c} \text{spora} \\ \diagdown \\ \text{H} \end{array}$	$\begin{array}{c} \text{sporaa} \\ \quad \diagdown \\ \text{H} \quad \text{L} \end{array}$	‘slow’
	d.	<i>vrédna</i> _{SHORT}	<i>vrêdna</i> : _{LONG}	$\begin{array}{c} \text{vreedna} \\ \quad \diagdown \\ \text{L} \quad \text{H} \end{array}$	$\begin{array}{c} \text{vreednaa} \\ \quad \diagdown \\ \text{H} \quad \text{L} \end{array}$	‘diligent’
	e.	<i>zelèna</i> _{SHORT}	<i>zèlena</i> : _{LONG}	$\begin{array}{c} \text{zelena} \\ \quad \diagdown \\ \text{L} \quad \text{H} \end{array}$	$\begin{array}{c} \text{zelena} \\ \diagdown \quad \diagdown \\ \text{H} \quad \text{L} \end{array}$	‘green’

It is important to keep in mind that these adjectives are not exceptions but rather representatives of general cases and that these differences hold throughout the relevant “paradigms”.

The placement and the quality of falling accents (45a-b) are not affected in the long forms. Rising accents, on the other hand, alter in the long form: when a rising accent is on the first syllable in the short form it changes to a falling accent in the long form

¹⁶ This also holds for *lepa* ‘beautiful’, given in Tables IV and V.

two remaining moras receive L level tones, which exactly corresponds to the description of the short falling *spòra:LONG*.

In (45d) a High assigned to the word final vowel spreads to the second mora of the preceding long vowel, yielding the long rising accent pattern. Again, due to the word final syllable length in the long form the first mora of the initial syllable receives a High (because of (43b) the second mora of the initial syllable cannot be assigned a High). As a consequence, the falling accent pattern arises:

- (45) d. *vrédna*_{SHORT} *vrêdna*:_{LONG} *vreedna* *vreednaa* ‘diligent’
- $\begin{array}{c} | \quad \diagdown \\ \text{L} \quad \text{H} \end{array}$ $\begin{array}{c} | \quad \diagdown \quad \diagdown \\ \text{H} \quad \text{L} \quad \text{L} \end{array}$

Finally, the accent placement shift in (45e) falls out easily as well. In the short form the short rising accent is on the penultimate syllable since a High level tone spreads from the final syllable. In the long form, a High is assigned to the penultimate syllable instead and spreads leftward to the first syllable. This creates the effect of the short rising accent shifting to the first syllable in the long form of *zelena*.¹⁸

- (45) e. *zèlena*_{SHORT} *zèlena*:_{LONG} *zelena* *zelena*_a ‘green’
- $\begin{array}{c} | \quad \diagdown \\ \text{L} \quad \text{H} \end{array}$ $\begin{array}{c} \diagdown \quad \diagdown \\ \text{H} \quad \text{L} \end{array}$

This analysis can also be extended to some masculine declension cases. Vowels of masculine long form/PS endings are also long, and as such expected to disrupt the tone assignment on the stem, which usually does not happen. This is simply because these

¹⁸ In Halle’s (1997) system this would mean that *zelen* is a postaccented stem rather than unaccented since a High is assigned to the preceding vowel, and not to the initial syllable by default.

long vowel endings are added to the stem and therefore do not affect tone assignment processes within the stem:

- (46) a. $sûv_{SHORT}$ $sûvi:_{LONG}$ $\begin{array}{c} \text{suuv} \\ | \quad | \\ \text{HL} \end{array}$ $\begin{array}{c} \text{suuvii} \\ | \quad / \quad / \\ \text{HL} \end{array}$ ‘dry’
- b. $čëstit_{SHORT}$ $čëstiti:_{LONG}$ $\begin{array}{c} \text{čëstit} \\ \quad \quad \backslash \\ \quad \quad \text{H} \end{array}$ $\begin{array}{c} \text{čëstitii} \\ \quad \quad \backslash \quad \backslash \\ \quad \quad \text{H} \quad \text{L} \end{array}$ ‘honest/good’

In (46) neither the long falling nor the short rising pattern are affected by the addition of the long form affix *-i:*.

Now, with certain masculine adjectives, [a] of the final syllable of the short form can be dropped in the long form – this is a common property of SC and has been traditionally called *nepostojano a* ‘fleeting *a*’ (e.g., Stevanović 1962). When this happens the long vowel of the long form ending is not simply added to the stem but becomes part of the stem for purposes of tone assignment, i.e., in this case there is no syllable number extension, rather the syllable number remains the same because of the dropped final [a]. However, if in the short form that [a] is assigned H, we expect to see readjustment in the long form when that [a] is dropped. In particular, we expect H to be assigned to the first vowel to the left since it cannot be assigned to the final long vowel of the PS ending, by assumption. This is completely borne out and I offer two examples below (for further evidence see Stevanović, 1962: 167-172).

adjectives stand up further scrutiny, they provide important empirical justification for the theoretical underpinnings of the analysis presented in Chapter 5.

BIBLIOGRAPHY

- Abels, Klaus. 2003a. *[P clitic] – Why? In *Proceedings of Formal Description of Slavic Languages 4*, ed. by P. Kosta, J. Błaszczak, L. Geist, M. Žygis, 443-460. Potsdam, Germany. FDSL IV.
- Abels, Klaus. 2003b. Successive cyclicity, anti-locality, and adposition stranding. Doctoral Dissertation, University of Connecticut.
- Abney, Steven. 1987. English noun phrase in its sentential aspect. Doctoral Dissertation. MIT.
- Adger, David. 2003. *Core Syntax*. Oxford: Oxford University Press.
- Aikawa, Takako. 1993. Reflexivity in Japanese and LF-analysis of zibun-binding. Doctoral Dissertation. The Ohio State University.
- Aikawa, Takako. 1994. Logophoric use of the Japanese reflexive Zibun-zisin ‘selfself’, In *Formal Approaches to Japanese Linguistics 1: MIT Working Papers in Linguistics 24*, ed. by Masatoshi Koizumi and Hiroyuki Ura, 1-22. Cambridge, Mass., MIT.
- Aljović, Nadira. 2000. Recherches sur la morpho-syntaxe du groupe nominal en serbo-croate. Thèse de doctorat. Université de Paris VIII.
- Aljović Nadira. 2002. Long adjectival inflection and specificity in Serbo-Croatian. In *Recherches Linguistiques de Vincennes 31*: 27-42.
- Aljović, Nadira. 2005. Syntactic position of attributive adjectives: the case of Serbo-Croatian long and short adjectives. Paper presented at the workshop JE “Adjectifs”, Paris.

- An, Duk-Ho. 2007. Clauses in noncanonical positions at the syntax-phonology interface. *Syntax* 10:1, 38–79
- Arsenijević, Boban. 2010. Conjunction marking in Serbo-Croatian. In *Proceedings of the Formal Approaches to Slavic Linguistics 18 (FASL 18): The Second Cornell Meeting*, ed. by Wayles Browne, Adam Cooper, Alison Fisher, Esra Kesici, Nikola Predolac, Draga Zec, 1-20. Michigan Slavic Publications, University of Michigan.
- Asher R.E. and T.C. Kumari. 1997. *Malayalam*. Routledge London and New York.
- Asudeh, Ash and Frank Keller. 2001. Experimental evidence for a predication-based binding theory. In *Papers from the 37th Meeting of the Chicago Linguistic Society* ed. by Mary Andronis, Christopher Ball, Heidi Elston, and Sylvain Neuvel, Vol. 1: The Main Session, 1-14. Chicago.
- Avrutin, Sergey. 1994. Psycholinguistic investigations in the theory of reference. Doctoral Dissertation, MIT.
- Baauw, Sergio, Maria Escobar and William Philip. 1997. A delay of principle B effect in Spanish speaking children: the role of lexical feature acquisition. In *Proceedings of the GALA 97 Conference on Language Acquisition*, ed. by Antonella Sorace, Caroline Heycock and Richard Shillcock, 16-21. Edinburgh: Edinburgh University Press.
- Babby, Leonard H. 1973. The deep structure of adjectives and participles in Russian. *Language*: 49, 349-360.
- Bailyn, John. 1994. The Syntax and semantics of Russian long and short form adjectives: an X'-theoretic account. In *Formal Approaches to Slavic Linguistics: The Ann*

- Arbor Meeting*, ed. by Jindřich Toman, 1-30. Michigan Slavic Publications, University of Michigan.
- Bailyn, John. 2001. The syntax of Slavic predicate case. In *ZAS Occasional Papers in Linguistics*, ed. by A. Strigin et. al, 1-26. Zentrum für allgemeine Sprachwissenschaft, Berlin.
- Baker, Mark. 2003. *Lexical Categories*. Cambridge: Cambridge University Press.
- Baker, Mark and Jonathan David Bobaljik 2002. *Introduction to Morphology*. Manuscript, Rutgers and McGill.
- Bašić, Monika. 2004. Nominal subextractions and the structure of NPs in Serbian and English. MA thesis, University of Tromsø.
- Beaver, David and Clark Brady. 2003. ‘Always’ and ‘only’: why not all focus-sensitive operators are alike. *Natural Language Semantics* 11, 323-362.
- Bernstein, Judy B. 1993. *Topics in the syntax of nominal structure across Romance*. Doctoral Dissertation, The City University of New York.
- Bernstein, Judy B. 2005. On the morpho-syntax of possessive constructions. *Recherches Linguistiques de Vincennes* 34, 57-78.
- Bernstein, Judy B. and Christina Tortora. 2005. Two types of possessive forms In English. *Lingua* 115: 1221–1242.
- Bhatt, Rajesh and Roumyana Pancheva, 2001. Implicit Arguments. Ms., University of Texas, Austin and USC.
- Bobaljik, Jonathan. 1999. Adverbs: The hierarchy paradox. *Glott International*, 4, 9/10: 27-28.

- Bobaljik, Jonathan David. 2002a. A-Chains at the PF-interface: copies and "covert" movement. *Natural Language and Linguistic Theory* 20.2, 197-267.
- Bobaljik, Jonathan David. 2002b. Syncretism without paradigms: Remarks on Williams 1981, 1994. *Yearbook of Morphology 2001*.
- Bobaljik, Jonathan David. 2008a. Where's Phi? Agreement as a pos-syntactic operation. In *Phi-Theory: Phi features across interfaces and modules*, ed. by Daniel Harbour, David Adger, and Susana Béjar. Oxford University Press, 295-328.
- Bobaljik, Jonathan David. 2008b. Paradigms, optimal and otherwise: A case for skepticism. In *Inflectional Identity*, ed. by Asaf Bachrach and Andrew Ira Nevins, 29-54. Oxford University Press.
- Boeckx, Cedric. 2003. *Islands and Chains*. Amsterdam: John Benjamins.
- Boeckx, Cedric. 2009. On the locus of asymmetry in UG. *Catalan Journal of Linguistics* 8: 41-53.
- Bošković, Željko. 2001. *On the Nature of the Syntax-phonology Interface: Cliticization and Related Phenomena*. London: Elsevier.
- Bošković, Željko. 2005. On the locality of left branch extraction and the structure of NP. *Studia Linguistica* 59: 1-45.
- Bošković, Željko. 2006. Case checking vs. case assignment and the case of adverbial NPs. *Linguistic Inquiry* 37: 522-533.
- Bošković, Željko. 2008a. What will you have, DP or NP? In *Proceedings of the Northeast Linguistic Society 37*, ed. by Emily Elfner and Martin Walkow, 101-114. Amherst: GLSA.

- Bošković, Željko. 2008b. On the operator freezing effect. *Natural Language and Linguistic Theory* 26: 249-287.
- Bošković, Željko. 2009a. More on the no-DP analysis of article-less languages. *Studia Linguistica* 63: 187-203.
- Bošković, Željko. 2009b. Unifying first and last conjunct agreement. *Natural Language and Linguistic Theory* 27:3, 455-496.
- Bošković, Željko. 2010a. On NPs and clauses. Ms., University of Connecticut.
- Bošković, Željko. 2010b. Phases beyond clauses. Ms., University of Connecticut.
- Bowers, John. 1993. The syntax of predication. *Linguistic Inquiry* 24: 591-656.
- Brame, Michael. 1982. The head-selector theory of lexical specifications and the nonexistence of coarse categories. *Linguistic Analysis* 10:321–325.
- Browne, Wayles. 1974. On the problem of enclitic placement in Serbo-Croatian. In *Slavic Transformational Syntax*, Vol. 10, ed. by Brecht, Richard D. and Catherine V. Chvany, 36-52. Ann Arbor: Michigan Slavic Materials. University of Michigan.
- Browne, Wayles. 1993. Serbo-Croat. In *The Slavonic Languages*, ed. by Bernard Comrie and Greville Corbett. Routledge: London and New York.
- Bruening, Benjamin. 2009. Selectional asymmetries between CP and DP suggest that the DP hypothesis is wrong. In *University of Pennsylvania Working Papers in Linguistics 15.1: Proceedings of the 32nd Annual Penn Linguistics Colloquium*, ed. by L. MacKenzie, 26—35.
- Buer, Winifred. 1993. *Maori*. Routledge, London and New York.
- Burzio, Luigi. 1989. On the non-existence of disjoint reference principles. In *Rivista di Grammatica Generativa* 14:3-27.

- Burzio, Luigi. 1991. The morphological basis of anaphora. *Journal of Linguistics* 27:81-105.
- Burzio, Luigi. 1996. The role of the antecedent in anaphoric relations, In *Current Issues in Comparative Grammar*, ed. by R. Freidin, 1-45. Kluwer, Dordrecht.
- Caink, Andrew. 2000. In favor of a ‘clitic cluster’ in the Bulgarian and Macedonian DP. In *Papers from the 3rd Conference on Formal Approaches to South Slavic and Balkan Languages*, Vol. 34 of *University of Trondheim Working Papers in Linguistics*, ed. by M. Dimitrova-Vulchanova, I. Krapova, and L. Hellan, 170–182.
- Canac-Marquis, Réjean. 2005. Phases and binding of reflexives and pronouns in English. In *Proceedings of the 12th International Conference on Head-Driven Phrase Structure Grammar*, ed. by S. Müller, 482–502. Stanford: CLSI.
- Cardinaletti, Anna. and Michal Starke. 1999. The typology of structural deficiency. A case study of the three classes of pronouns. In *Clitics in the Languages of Europe*, ed. by Hank van Riemsdijk, 145-233. Berlin: Mouton de Gruyter.
- Cinque, Guglielmo. 1991. Functional projections and N-movement within the DP. Paper presented at the 15th GLOW Colloquium, Lisbon.
- Cinque, Guglielmo. 1994. On the evidence of partial N-movement in the Romance DP. In *Paths towards Universal Grammar*, ed. by Cinque Guglielmo, 85-110. Gergetown: Georgetown University Press.
- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-linguistic Perspective*. New York/Oxford: Oxford University Press.

- Cinque, Guglielmo. 2010. *The Syntax of Adjectives: A Comparative Study*. Cambridge, MA: MIT Press.
- Chierchia, Guglielmo. 1998. Reference to kinds across languages. *Natural Language Semantics* 6: 339-405.
- Chierchia, Gennaro. & Sally McConnell-Ginet, 2000. *Meaning and Grammar*. MIT Press.
- Chomsky, Noam. 1970. Remarks on nominalization. In *Studies on Semantics in Generative Grammar*, 11-61, The Hague: Mouton, 1972.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986a. *Barriers*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 1986b. *Knowledge of Language: Its Nature, Origin, and Use*. New York: Praeger.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, et al., 89-156. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1-50. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2004. Beyond Explanatory Adequacy. In *Structures and Beyond*, ed. by Belletti Adriana, 104-131. *The Cartography of Syntactic Structure Vol 3*. Oxford: OUP.

- Chomsky, Noam. 2007. Approaching UG from below. In *Interfaces + Recursion = Language?*, ed. by Uli Sauerland and Hans-Martin Gärtner, 1-29. Berlin: Mouton de Gruyter.
- Chomsky, Noam. 2008. On phases. In *Foundational Issues in Linguistic Theory*, ed. by Freidin, Robert, Carlos P. Otero and Maria Luisa Zubizarreta, 133-166. Cambridge, MA: MIT Press.
- Cole, Peter, and Li-May Sung. 1994. Head movement and long-distance reflexives. *Linguistic Inquiry* 25:355–406.
- Collins, Chris and Höskuldur Thráinsson. 1993. Object shift in double object constructions and the theory of Case. In *MIT Working Papers in Linguistics 19: Papers on Case and Agreement II*, ed. by C. Phillips, 131-174. MITWPL, MIT Cambridge, Mass.
- Corver, Norbert. 1992. On deriving certain left branch extraction asymmetries: A case study in parametric syntax. In *Proceedings of the 22nd North East Linguistic Society*, 67-84. GLSA, University of Massachusetts, Amherst.
- Curme, George O. 1910. The origin and growth of the adjective declension in Germanic. *JEGP* IX. 439-482.
- Delsing, Lars-Olof. 1993. The internal structure of noun phrases in the Scandinavian languages: a comparative study. Doctoral Dissertation, University of Lund.
- Delsing, Lars-Olof. 1998. Possession in Germanic. In *Possessors, Predicates, and the Movement in the Determiner Phrase*, ed. by Alexiadou Artemis and Chris Wilder, 87-109. John Benjamins, Amsterdam/Philadelphia.

- Despić, Miloje. 2008. On binding, pronouns, and the structure of NP in Serbo-Croatian. Ms., University of Connecticut.
- Despić, Miloje. 2009a. On the structure of the Serbo-Croatian noun phrase – evidence from binding. In *Proceedings of the Formal Approaches to Slavic Linguistics 17 (FASL 17), the Yale Meeting*, ed. by Jodi Reich, Maria Babyonyshev, Daria Kavitskaya, 17-32. Michigan Slavic Publications, University of Michigan.
- Despić, Miloje. 2009b. On the morpho-syntax of Serbo-Croatian nouns and adjectives. Ms. University of Connecticut.
- Despić, Miloje, 2010. Markedness and marked features in Serbian. In *Proceedings of the Formal Approaches to Slavic Linguistics 18 (FASL 18): The Second Cornell Meeting*, ed. by Wayles Browne, Adam Cooper, Alison Fisher, Esra Kesici, Nikola Predolac, Draga Zec, 1-20. Michigan Slavic Publications, University of Michigan.
- Despić, Miloje. to appear a. On two types of pronouns and the so-called ‘movement to D’ in Serbo-Croatian. In *Proceedings of the Northeast Linguistic Society 39 (NELS 39), Cornell*, ed. by Suzi Lima, Kevin Mullin, and Brian Smith.
- Despić, Miloje. to appear b. Paucals, pronouns and agreement in Serbo-Croatian. In *Proceedings of the Formal Approaches to Slavic Linguistics 20 (FASL 20)*, MIT.
- Despić, Miloje and Yael Sharvit. 2010. A bad father and an even worse mother: why subsecutive adjectives are not intersective. Ms., University of Connecticut.
- Diesing, Molly. 1992. *Indefinites*. Cambridge, Mass.: MIT Press.
- Dikken, Marcel den. 1995. *Particles*. Oxford: Oxford University Press.

- Dikken, Marcel den. 2007. Phase extension. Contours of a theory of the role of head movement in phrasal extraction. *Theoretical Linguistics* 33/1: 1-41.
- Eckardt, Regine. 2002 Reanalyzing Selbst. *Natural Language Semantics* 9: 371-412.
- Edmondson, Jerold A. and Franks Plank. 1978. Great expectations: an intensive self analysis. *Linguistics and Philosophy* 2, 373-413.
- Embick, David. 1997. *Voice and the Interfaces of Syntax*. Doctoral Dissertation, University of Pennsylvania.
- Embick, David and Morris Halle. 2005. On the status of stems in morphological theory. In *Romance Languages and Linguistic Theory 2003: Selected papers from Going Romance 2003*, ed. by T. Geerts, I. van Ginneken, and H. Jacobs, 37-62. Amsterdam: John Benjamins.
- Embick, David, and Alec Marantz. 2008. Architecture and Blocking, *Linguistic Inquiry* 39: 1–53.
- Embick, David. and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32: 555-595.
- Embick, David. and Rolf Noyer. 2006. Distributed Morphology and the syntax/morphology interface. In *Oxford handbook of linguistic interfaces*, ed. by G. Ramchand and C. Reiss, 289-324. Oxford: OUP.
- Enç, Mürvet. 1991. The semantics of specificity. *Linguistic Inquiry* 22: 1-25.
- Ernst, Thomas. 2002. *The Syntax of Adjuncts*. Cambridge: Cambridge University Press.
- Escobar, Linda and Anna Gavarró. 2001. The acquisition of clitics and strong pronouns in Catalan. In *Clitics in Phonology, Morphology and Syntax*, ed. by Birgit Gerlach and Janet Grijzenhout, 161-180. Amsterdam: John Benjamins.

- Evans, Gareth. 1980. Pronouns. *Linguistic Inquiry* 11:337-362.
- Fiengo, Robert and James Higginbotham. 1981. Opacity in NP. *Linguistic Analysis* 7:395-421.
- Fiva, Toril. 1987. *Possessor Chains in Norwegian*. Oslo: Novus.
- Franks, Steven. 1994. Parametric properties of numeral phrases in Slavic. *Natural Language and Linguistic Theory* 12, 597-674.
- Franks, Steven. 1998. Clitics in Slavic. Paper presented at *Comparative Slavic Morphosyntax Workshop*, Indiana University, Bloomington.
- Franks, Steven. 2001. The internal structure of Slavic NPs, with special reference to Bulgarian. Ms., Indiana University, Bloomington.
- Franks, Steven. 2008. Clitic placement, prosody, and the Bulgarian verbal complex. *Journal of Slavic Linguistics*, 16-1: 91-138.
- Franks, Steven and Ljiljana Progovac. 1994. On the placement of Serbo-Croatian clitics. In *Indiana Slavic Studies 7, Proceedings of the 9th Biennial Conference on Balkan and South Slavic Linguistics, Literature and Folklore*, 69–78.
- Friedman, Victor. 2002. Macedonian. In *The Slavonic Languages*, ed. by B. Comrie and G. Corbett, 249- 305. London and New York: Routledge.
- Fukui, Naoki. 1986. A Theory of Category Projection and its Application. Doctoral Dissertation, MIT.
- Fukui, Naoki. 1988. Deriving the differences between English and Japanese. *English Linguistics* 5: 249-270.
- Fukui, Naoki & Hiromu Sakai. 2003. The visibility guideline for functional categories: verb raising in Japanese and related issues. *Lingua* 113: 321-375.

- Fukui, Naoki and Margaret Speas. 1986. Specifiers and projection. In *Papers in Theoretical Linguistics* volume 8 of MIT Working Papers in Linguistics, ed. by Naoki Fukui, Tova R. Rapoport, and E. Sagey, 128–172. Cambridge, Mass.: MITWPL.
- Gallego, Ángel J. 2010. *Phase Theory*. Amsterdam: John Benjamins.
- Genetti, Carol. 2007. *A Grammar of Dolakha Newar*. Mouton de Gruyter, Berlin, New York.
- Gengel, Kirsten. 2009. Phases and ellipsis. *Linguistic Analysis* 35: 21-42.
- Giannakidou, Anastasia. 2007. The landscape of EVEN. *Natural Language and Linguistic Theory* 25: 39-8.
- Godjevac, Svetlana. 2000. *Intonation, word order and focus projection in Serbo-Croatian*. Doctoral Dissertation, The Ohio State University.
- Grimshaw, Jane. 1990. *Argument Structure*. MIT Press, Cambridge, MA.
- Grodzinsky Yosef and Tanya Reinhart. 1993. The innateness of binding and coreference. *Linguistic Inquiry* 24: 69-101.
- Grohmann, K. Kleantes. 2003. *Prolific Domains*. Amsterdam: John Benjamins.
- Haegeman, Liliane. 2004. A DP-internal anaphor agreement effect. *Linguistic Inquiry* 35:704–712.
- Halle, Morris. 1995. The Russian declension. In *Perspectives in Phonology*, ed. by Jennifer Cole and Charles Kisseberth, 321-353. CSLI, Stanford.
- Halle, Morris. 1997. On stress and accent in Indo-European. *Language*, 73/2: 275-313.

- Halle, Morris. & Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In *The View from Building 20*, ed. by Kenneth Hale and S. Jay Keyser, 111-176. MIT Press, Cambridge.
- Halle, Morris. & Alec Marantz. 1994. Some key features of distributed morphology. In *MITWPL 21: Papers on phonology and morphology*, ed. by Andrew Carnie and Heidi Harley, 275-288. MITWPL, Cambridge.
- Halle, Morris and Ora Matushansky. 2006. The morphophonology of Russian adjectival inflection. *Linguistic Inquiry* 37: 351-404.
- Halpern, Aaron. 1992. The Balkan definite article and pseudo-second position. In *Proceedings of the Eighteenth Annual Meeting of the Berkeley Linguistics Society*, ed. by Laura A. Buszard-Welcher, Lionel Wee and William Weigel, 338–349. Berkeley Linguistics Society, University of California, Berkeley.
- Hamann, Cornelia, Odette Kowalski and William Philip. 1996. The French ‘delay of principle B’ effect. In *BUCLD Proceedings 21*, ed. by Elizabeth Hughes, Mary Hughes and Annabel Greenhill, 205-219. Somerville, Massachusetts: Cascadilla Press.
- Hankamer, Jorge & Line Mikkelsen. 2002. A morphological analysis of definite nouns in Danish. *Journal of Germanic Linguistics* 14(2): 137-175.
- Hankamer, Jorge, and Line Mikkelsen. 2005. When movement must be blocked: A response to Embick and Noyer. *Linguistic Inquiry* 36:85–125.
- Haspelmath, Martin. 2008. A frequentist explanation of some universals of reflexive marking. *Linguistic Discovery* 6(1): 40-63.

- Heim, Irene. 1983. File change semantics and the familiarity theory of definiteness. In *Meaning, Use and Interpretation of Language*, ed. by Rainer Bäuerle, Christoph Schwarze, and Arnim von Stechow, 164-189. Berlin: Walter de Gruyter.
- Heim, Irene. 1998. Anaphora and semantic interpretation: A reinterpretation of Reinhart's approach. In *The Interpretative Tract*, ed. by Uli Sauerland and Orin Percus, MIT working papers in linguistics 25: 205-246.
- Heim, Irene and Kratzer, Angelika. 1998. *Semantics in Generative Grammar*. Blackwell Publishers.
- Heim, Irene, Howard Lasnik and Robert May. 1991. Reciprocity and plurality. *Linguistic Inquiry* 22: 63-101.
- Heinat, Frank. 2006. Probes, pronouns, and binding in the minimalist program. Doctoral Dissertation, University of Lund.
- Hellan, Lars. 1986. The headedness of NPs in Norwegian. In *Features and Projections*, ed. by P. Muysken and H. van Riemsdijk, 89-122. Dordrecht: Foris.
- Hellan, Lars. 1988. *Anaphora in Norwegian and the Theory of Grammar*. Dordrecht: Foris.
- Hestvik, Arild. 1991. Subjectless binding domains. *Natural Language and Linguistic Theory* 9: 455-496.
- Hestvik, Arild. 1992. LF movement of pronouns and antisubject orientation. *Linguistic Inquiry* 23-4: 557-594.
- Hicks, Glyn. 2006. The derivation of anaphoric relations. Doctoral Dissertation, University of York.

- Hicks, Glyn. 2009. *The derivation of anaphoric relations*. Amsterdam/Philadelphia: JohnBenjamins.
- Higginbotham, James. 1980. Pronouns and bound variables. *Linguistic Inquiry* 11: 679-708.
- Higginbotham, James. 1983. Logical form, binding, and nominals, *Linguistic Inquiry* 14, 395-440.
- Higginbotham, James. 1985. On semantics. *Linguistic Inquiry* 16, 547-593.
- Hogg, Richard M. 1977. *English Quantifier Systems*. Amsterdam: North Holland.
- Holmberg, Anders. 1991. The distribution of Scandinavian weak pronouns. In *Clitics and Their Hosts: Eurotyp Working Papers, Theme Group 8: Clitics*, ed. by Henk van Riemsdijk and Luigi Rizzi, 155-74. Tilburg University, Tilburg.
- Hornstein, Norbert. 2001. *Move! A Minimalist Theory of Construal*. Oxford: Blackwell.
- Hu, Jianhua, Haihua Pan, and Liejiong Xu. 2001. Is there a finite vs. nonfinite distinction in Chinese? *Linguistics* 39: 1117–1148.
- Huang, C.-T. James. 1982. Logical relations in Chinese and the theory of grammar. Doctoral Dissertation, MIT.
- Iatridou, Sabine. 1990. About Agr(P). *Linguistic Inquiry* 4: 551-577.
- Inkelas, Sharon and Draga Zec. 1988. Serbo-Croatian pitch accent: the interaction of tone, stress, and intonation. *Journal of the Linguistic Society of America*, 64 (2): 227-48.
- Iwasaki Shoichi and Preeya Ingkaphirom. 2005. *A Reference Grammar of Thai*. Cambridge University Press.
- Jackendoff, Ray. 1971. Gapping and related rules. *Linguistic Inquiry* 2: 21–35.

- Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge: MIT Press.
- Johnson, Kyle. 1991. Object Positions. *Natural Language and Linguistic Theory* 9: 577–636.
- Kamp, Hans. 1975. Two theories about adjectives. In *Formal Semantics of Natural Language*, ed. by Edward L. Keenan, 123-155. Cambridge University Press.
- Kamp, Hans and Barbara Partee. 1995. Prototype theory and compositionality, *Cognition* 57: 129-191.
- Kang, Jungmin. 2011. To have TP or not: evidence from successive-cyclic movement via spec CP. Generals Paper Proposal. University of Connecticut.
- Kaplan, David. 1989. Demonstratives. In *Themes from Kaplan*, ed. by Joseph Almog, John Perry and Howard Wettstein, 481-563. Oxford: Oxford University Press.
- Katada, Fusa. 1988. LF-binding of anaphors. In *Proceedings on the West Coast Conference on Formal Linguistics 7*, ed. by Hagit Borer, 171-186. Stanford Linguistics Association, Stanford University, Stanford, California.
- Katada, Fusa. 1991. The LF representation of anaphors. *Linguistic Inquiry* 22: 287-313.
- Kayne, Richard. 1984. *Connectedness and Binary Branching*. Foris, Dordrecht.
- Kayne, Richard. 1994. *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.
- Kayne, Richard. 2002. Pronouns and their antecedents. In *Derivation and Explanation in the Minimalist Program*, ed. by Samuel David Epstein & T. Daniel Seely, 133–166. Malden, MA: Blackwell Publishing.
- King, Jeffrey. 2001. *Complex Demonstratives: A Quantificational Account*. Cambridge, Mass.: MIT Press.

- Kiparsky, Paul. 2002. Disjoint reference and the typology of pronouns. In *More than words: A festschrift for Dieter Wunderlich*, ed. by Ingrid Kaufmann and Barbara Stiebels, 179-226. Berlin: Akademie Verlag. [Studia grammatica 53].
- Kitagawa, Yoshihisa. 1994. Shells, yolks, and scrambled e.g.s. In *Proceedings of the North East Linguistic Society 24*, 221-239. GLSA, University of Massachusetts, Amherst.
- Kratzer, Angelica and Elisabeth Selkirk. 2007. Phase theory and prosodic spellout: The case of verbs. *The Linguistic Review* 24(2-3): 93–135.
- Kruspe, Nicole. 2004. *A Grammar of Semelai*. Cambridge University Press.
- Kumashiro, Toshiyuki and Robert W. Langacker. 2003. Double-subject and complex-predicate constructions. *Cognitive Linguistics* 14, 1-45.
- Kuno, Susumu. 1973. Constraints on internal clauses and sentential subjects. *Linguistic Inquiry* 4: 363-385.
- Kuno, Susumu. 1976. Subject raising. In *Syntax and semantics 5: Japanese generative grammar*, ed. by Masayoshi Shibatani, 17–49. New York: Academic Press.
- Larson, Richard. 1983. *Restrictive Modification*. Doctoral Dissertation. University of Wisconsin.
- Larson, Richard. 1988. On the double object construction. *Linguistic Inquiry* 19: 335-391.
- Larson, Richard. 1998. Events and modification in nominals. In *Proceedings of SALT VIII*, ed. by Devon Strolovitch and Aaron Lawson, 145–168. Ithaca, NY: CLC Publications.
- Larson, Richad. & Marta Lujàn, 1984. Emphatic Pronouns. Unpublished Ms.

- Larson, Richard. and Gabriel Segal. 1995. *Knowledge of Meaning*. Bradford Books/MIT Press, Cambridge.
- Lasnik, Howard. 1989. *Essays on Anaphora*. Dordrecht: Kluwer.
- Lasnik, Howard. 1998. Some reconstruction riddles. In *University of Pennsylvania Working Papers in Linguistics 5.1*, ed. by A. Dimitriadis, H. Lee, C. Moisset & A. Williams, 83–98. Philadelphia: Penn Linguistics Club, University of Pennsylvania.
- Lasnik, Howard and Mamoru Saito. 1991. On the subject of infinitives. In *Papers From the 27th Regional Meeting of the Chicago Linguistics Society*, ed. by L. Dobrin, L. Nichols and R. Roderiguez, 324-343. Chicago: University of Chicago.
- Lebeaux, David. 1988. Language acquisition and the form of the grammar. Doctoral Dissertation, University of Massachusetts, Amherst.
- Lee-Schoenfeld, Vera. 2004. Binding by phase: (Non)-complementarity in German. *Journal of Germanic Linguistics* 16: 111-173.
- Lee-Schoenfeld, Vera. 2008. Binding, phases, and locality. *Syntax* 11.3:281-298.
- Leko, Nedžad. 1986. *Syntax of Noun Headed Structures in Serbo-Croatian and Corresponding Phrasal Structures in English*. Doctoral Dissertation, Indiana University.
- Leko, Nedžad. 1988. X-bar theory and internal structure of NPs. *Lingua* 75, 139-169.
- Leko, Nedžad. 1992. Restrictive and appositive forms of Serbo-Croatian descriptive adjectives. *Zeitschrift für Slawistik* 31, 621-629.

- Leko, Nedžad. 1999. Functional Categories and the Structure of the DP in Bosnian. In *Topics in South Slavic Syntax and Semantics*, ed. by Dimitrova-Vulchanova, Mila and Lars Hellan, 229-252. John Benjamins Publishing Company, Amsterdam.
- Lidz, Jeffrey and William J. Idsardi. 1998. Chains and phonological form. In *Proceedings of 22nd Penn Linguistics Colloquium. University of Pennsylvania Working Papers in Linguistics*, 5-1: 109-125.
- Lieber, Rochelle. 1992. *Deconstructing Morphology*. The University of Chicago Press.
- Lin, Jo-wang. 2002. Selectional restrictions of tenses and temporal reference of Chinese bare sentences. *Lingua* 113: 271-302.
- Lin, Jo-wang. 2003. Temporal reference in Mandarin Chinese. *Journal of East Asian Linguistics* 12: 259-311.
- Lin, Jo-wang. 2006. Time in a language without tense: The case of Chinese. *Journal of Semantics* 23:1-53.
- Lin, Jo-wang. 2010. A tenseless analysis of Mandarin Chinese revisited: a response to Sybesma 2007. *Linguistic Inquiry* 41: 305-329.
- Linde-Usiekniewicz, Jadwiga and Paweł Rutkowski. 2007. NP coordination as a new argument in the debate on the DP-analysis of Polish, In *LSO Working Papers in Linguistics, vol. 6: Proceedings of WIGL 2006*, ed. by Blake H. Rodgers, 103-117. Madison: Department of Linguistics, University of Wisconsin-Madison.
- Lobeck, Anne. 1990. Functional heads as proper governors. In *Proceedings of the North East Linguistic Society* 20, 348-362. GLSA, University of Massachusetts, Amherst.

- Lobeck, Anne. 1995. *Ellipsis: Functional Heads and Identification*. Oxford: Oxford University Press.
- Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-movement syntax and logical form. *Linguistic Inquiry* 25: 609-665.
- Longobardi, Giuseppe. 2001. The Structure of DPs: some principles, parameters and problems. In *Handbook of Contemporary Syntactic Theory*, ed. by M. Baltin and C. Collins 562-603. Oxford UK: Blackwell.
- Lujàn, Marta. 1985. Binding properties of overt pronouns in null pronominal languages, In *Proceedings of the Twenty-first Regional Meeting of the Chicago Linguistic Society*, ed. by W. Eilfort, P. Kroeber and K. Peterson 424-438. University of Chicago, Chicago, Illinois.
- Lujàn, Marta. 1986. Stress and binding of pronouns. In *Papers from the Parasession on Pragmatics and Grammatical Theory*, ed. by A. Farley, P. Farley and K-E. McCullough, 248-262. Chicago Linguistics Society, University of Chicago, Chicago, Illinois.
- MacKay, Carolyn J. 1999. *A Grammar of Misantra Totonac*. The University of Utah Press. Salt Lake City.
- Marantz, Alec. 1984. *On the Nature of Grammatical Relations*. MIT Press, Cambridge Mass.
- Marantz, Alec. 1992. How morphemes are realized phonologically. Paper presented at the *DIMACS Workshop on Human Language*, Princeton University. Manuscript, MIT.

- Marantz, Alec. 1995. A late note on late insertion. In *Explorations in Generative Grammar*, ed. by Young-Sun Kim, et. al, 396-413. Hankuk Publishing Co., Seoul.
- Marantz, Alec. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own Lexicon. In *University of Pennsylvania working papers in linguistics vol. 4.2*, ed. by Alexis Dimitriadis, Laura Siegel, Clarissa Surek-Clark, and Alexander Williams, 201–225. University of Pennsylvania.
- Marelj, Marijana. 2004. *Middles and argument structure across languages*. Doctoral Dissertation. Utrecht: LOT.
- Marelj, Marijana. in press. Bound-variable anaphora and left branch condition. *Syntax*.
- May, Robert. 1985. *Logical Form*. Cambridge: MIT Press.
- McCawley, James D. 1988. *The Syntactic Phenomena of English*. Chicago: U. Chicago Press.
- McFadden, Thomas. 2004. On the pronominal origins of the Germanic strong adjective inflection. In *University of Pennsylvania Working Papers in Linguistics* 10(1), 123-136.
- McFadden, Thomas and Sandhya Sundaresan. 2008. Nominative subjects in Tamil nonfinite clauses. Talk given at the South Asia Language Analysis Round Table meeting, University of Wisconsin-Madison, October 16th.
- McKee, Cecile. 1992. A comparison of pronouns and anaphors in Italian and English language acquisition. *Language Acquisition* 2:21-54.

- Miechowicz-Mathiasen, Katarzyna. 2011. What the adnominal intensifier *sam* and left branch extractions tell us about the structure of Polish nominal projections. Ms., Adam Mickiewicz University.
- Montalbetti, Mario. 1984. *After binding*. Doctoral Dissertation, MIT.
- Moro, Andrea. 2000. *Dynamic Antisymmetry*, MIT Press.
- Mrazović, Pavica and Zora Vukadinović. 1990. *Gramatika srpsko-hrvatskog jezika za strance*. Novi Sad: Dobra Vest.
- Mulder, Rene. 1991. An empty head for object control. In *Proceedings of the North Eastern Linguistic Society* 21, 293-307. GLSA, University of Massachusetts, Amherst.
- Nakau, Minoru. 1973. *Sentential Complementation in Japanese*. Tokyo: Kaitakusya.
- Nemoto, Naoko. 1991. Scrambling and conditions on A-Movement. In *Proceedings of the 10th West Coast Conference on Formal Linguistics*, ed. by Dawn Bates, 349-358. Stanford: CSLI Publications.
- Nemoto, Naoko. 1993. Chains and case positions: A study from scrambling in Japanese. Doctoral dissertation, University of Connecticut.
- Obata, Miki. 2010. Root, successive-cyclic and feature-splitting internal merge: implications for feature-inheritance and transfer. Doctoral Dissertation, University of Michigan.
- Osawa, Fuyo. 1999. The relation between tense and aspect: the emergence of the T system. *UCL Working Papers in Linguistics* 11: 521-544.
- Padilla, Jose. 1990. *On the Definition of Binding Domains in Spanish*. Dordrecht: Kluwer.

- Partee, Barbara H. 1987. Noun phrase interpretation and type shifting principles. In *Studies in Discourse Representation Theory and the Theory of Generalized Quantifiers*, ed. by J. Groenendijk, D. de Jongh, and M. Stokhof, 115-143. GRASS 8, Foris, Dordrecht..
- Partee, Barbara. 1995. Lexical semantics and compositionality. In *An Invitation to Cognitive Science (Second Edition). Volume 1: Language*, ed. by Lila Gleitman and Mark Liberman, 311-360. Cambridge: MIT Press.
- Partee, Barbara. in press. Privative adjectives: subsective plus coercion. In *Presuppositions and Discourse*, ed. by Rainer Bäuerle, Uwe Reyle and Thomas Ede Zimmermann. Amsterdam: Elsevier.
- Partee, Barbara, and Vladimir Borschev. 1998. Integrating lexical and formal semantics: genitives, relational nouns, and type-shifting. In *Proceedings of the Second Tbilisi Symposium on Language, Logic, and Computation*, ed. by Robin Cooper and Thomas Gamkrelidze, 229-241. Tbilisi: Center on Language, Logic, Speech, Tbilisi State University.
- Paunović, Željka. 2001. Aspectual-temporal relations in Serbo-Croatian verbal morphology. *Essex Graduate Student Papers in Language and Linguistics* 3: 171-196.
- Payne, John. 1993. The headedness of noun phrases: Slaying the nominal hydra. In *Heads in Grammatical Theory*, ed. by G. G. Corbett, N. M. Fraser, and S. McGlashan, 114–139. Cambridge: Cambridge University Press.
- Pereltsvaig, Asya. 2007. On the universality of DP: A view from Russian. *Studia Linguistica* 61(1): 59-94.

- Pesetsky, David, and Esther Torrego. 2001. T-to-C movement: causes and consequences. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz. Cambridge, MA: MIT Press.
- Pesetsky, David, and Esther Torrego. 2004a. Tense, case and the nature of syntactic categories. In *The Syntax of Time*, ed. by Jaqueline Guéron and Jaqueline Lecarme, 495-538. Cambridge, Mass.: MIT Press.
- Pesetsky, David, and Esther Torrego. 2004b. The syntax of valuation and the interpreability of features. Ms. MIT and UMass Boston (Published in Simin Karimi, Vida Samiian and Wendy K. Wilkins, (eds.) *Phrasal and Clausal Architecture: Syntactic Derivation and Interpretation*. Amsterdam: Benjamins 2007).
- Pica, Pierre. 1987. On the nature of the reflexivization cycle. In *Proceedings of the North Eastern Linguistic Society 17*, ed. by Joyce McDonough and Bernadette Plunkett, 483–499. GLSA, University of Massachusetts, Amherst.
- Pollard, Carl and Ivan Sag. 1992. Anaphors in English and the scope of binding theory. *Linguistic Inquiry* 23: 261-303.
- Pollard, Carl and Ivan Sag. 1994. *Head-Driven Phrase Structure Grammar*. Chicago: University of Chicago Press.
- Postal, Paul. 1969. On so-called "pronouns" in English. In *Modern Studies in English*, ed. by David Reibel and Sanford Schane, 201-224. Englewood Cliffs, NJ: Prentice-Hall.
- Progovac, Ljiljana. 1993. Long-distance reflexives: Movement-to-Infl versus relativized SUBJECT. *Linguistic Inquiry* 24: 55-772.

- Progovac, Ljiljana. 1998. Determiner phrase in a language without determiners. *Journal of Linguistics* 34: 165–179.
- Prokosch, Eduard. (1960) [1939]. *A Comparative Germanic grammar*. Philadelphia: Linguistic Society of America.
- Quicoli, A. Carlos. 2008. Anaphora by phase. *Syntax* 11.3:299-329.
- Radkevich, Nina. 2010. On location: the structure of case and adpositions. Doctoral Dissertation. University of Connecticut.
- Reinhart, Tanya. 1983. *Anaphora and Semantic Interpretation*. London: Croom Helm.
- Reinhart, Tanya. 1986. Center and periphery in the grammar of anaphora. In *Studies in the Acquisition of Anaphora vol. I Defining the Constraints*, ed. by Lust, Barbara, 123–150. Dordrecht: Reidel.
- Reinhart, Tanya and Eric J. Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24: 657-720.
- Rennison, John R. 1997. *Koromfe*. Routledge London and New York.
- Reuland, Eric. 2001. Primitives of binding. *Linguistic Inquiry* 32: 439-492.
- Reuland, Eric. 2005. Agreeing to bind. In *Organizing Grammar: Linguistic Studies in Honor of Henk van Riemsdijk*, ed. by N. Corver, H. Broekhuis, R. Huybregts, U. Kleinhenz and J. Koster, 505–513. Mouton de Gruyter.
- Reuland, Eric. 2007. Binding conditions: How can they be derived? *Lecture Notes*. St Petersburg- Utrecht University.
- Reuland, Eric. 2011. *Anaphora and Language Design*. MIT Press, Cambridge.
- Richards, Marc D. 2007. On feature inheritance: an argument from the phase impenetrability condition. *Linguistic Inquiry* 38: 563–572.

- Richards, Norvin. 1996. Toward a feature-movement theory of long-distance anaphora. Ms., MIT. Cambridge, Mass.
- Richards, Norvin. 2010. *Uttering trees*. MIT Press, Cambridge, Mass.
- Rizzi, Luigi. 1990. On the anaphor-agreement effect. *Rivista di Linguistica* 2:27–42.
- Roberts, Craige. 2002. *Demonstratives as definites*. In *Information Sharing: Reference and Presupposition in Language Generation and Interpretation*, ed. by Kees van Deemter and Roger Kibble, 89-196. CSLI Press.
- Rochemont, Michael. 1986. *Focus in Generative Grammar*. Amsterdam/Philadelphia: John Bejamins.
- Rothstein, Robert, A. 1993. Polish. In *The Slavonic Languages*, ed. by Bernard Comrie and Greville Corbett. Routledge: London and New York..
- Rutkowski, Paweł. 2002. Noun/pronoun asymmetries: evidence in support of the DP hypothesis in Polish. *Jezikoslovlje* 3: 159–170.
- Rutkowski, Paweł. 2007. Hipoteza frazy przedimkowej jako narzędzie opisu składniowego polskich grup imiennych. Doctoral Dissertation, Warsaw University.
- Rutkowski, Paweł. 2008. The syntax of floating intensifiers in Polish and its implications for the determiner phrase hypothesis. In: *Proceedings of the Thirty-Second Annual Meeting of the Berkeley Linguistics Society*, ed. by Zhenya Antic, Molly Babel, Charles Chang, Jisup Hong, Michael Houser, Fang-Chun Liu, Maziar Toosarvandani and Yao Yao. Berkeley: University of California.
- Rutkowski, Paweł. 2009. The determiner phrase in Polish. Talk given at the *8th European Conference on Formal Description of Slavic Languages – FDSL 8*,

workshop: The Structure of NP/DP and its Implications for QP (4 December 2009, Universität Potsdam, Potsdam, Germany)

Rutkowski, Paweł. and Ljiljana. Progovac. 2005. Classification projection in Polish and Serbian: The position and shape of classifying adjectives. In *Formal approaches to Slavic linguistics 13: The South Carolina meeting*, ed. by Steven Franks, Frank Y. Gladney, and Mila Tasseva-Kurktchieva, 289-299. Ann Arbor, MI: Michigan Slavic Publications.

Sadock, Jerrold. 1991. *Autolexical Syntax: A Theory of Parallel Grammatical Representations*. Chicago: University of Chicago Press.

Safir, Ken. 2004. *The Syntax of Anaphora*. Oxford: Oxford University Press.

Saito, Mamoru. 1985. Some asymmetries in Japanese and their theoretical implications. Doctoral Dissertation, MIT.

Saito, Mamoru. 1992. Long distance scrambling in Japanese. *Journal of East Asian Linguistics* 1: 69-118.

Saito, Mamoru. 1994. Additional-WH effects and the adjunction site theory. *Journal of East Asian Linguistics*, 3: 195-240.

Saito, Mamoru. 2004. Ellipsis and pronominal reference in Japanese clefts. *Nanzan Linguistics* 1: 21-50. Nagoya: Nanzan University, Center for Linguistics.

Saito, Mamoru. 2007. Notes on East Asian argument ellipsis. *Language Research* 43: 203-227.

Saito, Mamoru and Keiko Murasugi. 1990. N'-deletion in Japanese: a preliminary study. *Japanese/Korean Linguistics* 1: 258-301.

Sakel, Jeanette. 2004. *A Grammar of Mosetén*. Mouton de Gruyter, Berlin, New York.

- Samuels, Bridget. 2009. The structure of phonological theory. Doctoral Dissertation, Harvard University, Cambridge, MA.
- Sarma, Vaijayanthi M. 1999. Case, agreement and word order: issues in the syntax and acquisition of Tamil. Doctoral Dissertation, MIT.
- Schenker, Alexander M. 1993. Proto-Slavonic. In *The Slavonic Languages*, ed. by Bernard Comrie and Greville Corbett, Routledge: London and New York.
- Schiffman, Harold. 1999. *A Reference Grammar of Spoken Tamil*. Cambridge University Press.
- Schürcks. Lilia. 2003. Binding and Bulgarian. Doctoral Dissertation. Groningen University.
- Selvanathan, Nagarajan, and Chonghyuck Kim. 2008. The anaphor agreement effect in Tamil. *Snippets* 18: 15-16.
- Shaer, Benjamin. 1998. Adverbials, functional structure, and restrictiveness. In *Proceedings of the Northeast Linguistic Society 28*, ed. by P. N. Tamanji and K. Kusumoto, 391-407. Amherst, MA: GLSA.
- Sharvit, Yael. 2003. Embedded tense and universal grammar. *Linguistic Inquiry* 34: 669-681.
- Shevelov, George, Y. 1993. Ukrainian. In *The Slavonic Languages*, ed. by Bernard Comrie and Greville Corbett. Routledge: London and New York.
- Short, David. 1993a. Czech. In *The Slavonic Languages*, ed. by Bernard Comrie and Greville Corbett. Routledge: London and New York.
- Short, David. 1993b. Slovak. In *The Slavonic Languages*, ed. by Bernard Comrie and Greville Corbett. Routledge: London and New York.

- Siegel, Muffy. 1976a. *Capturing the Adjective*, Dostoral Dissertation, UMass Amherst.
- Siegel, Muffy. 1976b. Capturing the Russian adjective. In *Montague Grammar*, ed. by B. Partee, 293-390. New York: Academic Press.
- Sigurðsson, Halldór Ármann. 1993. The structure of the Icelandic NP. *Studia Linguistica* 47:177-197.
- Sigurðsson, Halldór Ármann. 2006. The Icelandic noun phrase: central traits. *Arkiv För Nordisk Filologi* 121:193-236.
- Smith, Carlota S., and Mary S. Erbaugh. 2005. Temporal interpretation in Mandarin Chinese. *Linguistics* 43:713–756.
- Sportiche, Dominique. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19: 425-449.
- Stanojčić Živojin. and Ljubomir Popović. *Gramatika Srpskoga Jezika*. Zavod za udžbenike i nastavna sredstva; Beograd.
- Stepanov, Arthur. 2001. Late adjunction and minimalist phrase structure. *Syntax* 4: 94–125
- Stevanović, Mihailo. 1962. *Gramatika srpskohrvatskog jexika za više razrede gimnazije*. Četvrto izdanje. Obod; Cetinje.
- Sundaresan, Sandhya, and Thomas McFadden. 2009. DP distribution and finiteness in Tamil and other languages: selection vs. case. *Journal of South Asian Linguistics* 2:5–34.
- Sung, Li-May. 1990. Universals of reflexives. Doctoral Dissertation. University of Illinois at Urbana-Champaign.

- Sussex, Roland and Paul V. Cumberley. 2006. *The Slavic Languages*. Cambridge University Press.
- Svenonius, Peter. 2004. On the edge. In *Peripheries: Syntactic Edges and their Effects*, ed. by David Adger, Cecile De Cat, George Tsoulas, 259-287. Dordrecht: Kluwer.
- Szabolcsi, Anna. 1981. The possessive construction in Hungarian: a configurational category in non-configurational language. *Acta Linguistica Academiae Scientiarum Hungaricae* 31, 261-289.
- Szabolcsi, Anna. 1983. The possessor that run away from home. *The Linguistic Review* 3: 89-102.
- Szabolcsi, Anna. 1987. Functional categories in the noun phrase. In *Approaches to Hungarian, Volume 2: Theories and Analyses*, ed. by I. Kenesei, 167-189. Szeged: JATE.
- Szabolcsi, Anna. 1992. Subordination: articles and complementizers. In *Approaches to Hungarian Vol. 4: The Structure of Hungarian*, ed. by I. Kenesei and C. Pléh, 123-137. Jate Szeged.
- Takahashi, Daiko. 1994. Minimality of movement. Doctoral Dissertation, University of Connecticut.
- Takahashi, Daiko. 2002. Phase no recycle. *The Rising Generation* 8: 270-273.
- Takahashi, Masahiko. 2011. Some theoretical consequences of case marking in Japanese. Doctoral Dissertation, University of Connecticut.
- Tanaka, Hidekazu. 2002. Raising to object out of CP. *Linguistic Inquiry* 33: 637-652.

- Taraldsen, K. Tarald. 1989. D-positions in Norwegian. In *Grammar in progress*, ed. by Nespor, M. & J. Mascaró, 419-431. Foris, Dordrecht.
- Taylor, Ann. Clitics and configurationality in ancient Greek. Doctoral Dissertation. University of Pennsylvania.
- Thompson, C. Laurence. 1987. *A Vietnamese Reference Grammar*. University of Hawaii Press.
- Thráinsson, Höskuldur. 1991. Long distance reflexives and the typology of NPs. In *Long Distance Anaphora*, ed. by Jan Koster and Eric Reuland, 49–75. Cambridge University Press, Cambridge.
- Thráinsson, Höskuldur. 2007. *The Syntax of Icelandic*. Cambridge University Press, New York.
- Thráinsson, Höskuldur, Hjalmar P. Petersen, Jógvan í Lon Jacobsen, and Zakaris Svabo Hansen 2004. *Faroese. An Overview and Reference Grammar*. Føroya Fróðskaparfelag, Tórshavn, Faroe Islands.
- Tomić, Olga Mišeska. 1996. The Balkan Slavic nominal clitics. In *Approaching Second: Second Position Clitics and Related Phenomena*, ed. by Aaron Halpern and Arnold Zwicky, 511–536. Stanford, Calif.: CSLI Publications.
- Tucker, Matthew A. 2010. On the implications of the anaphor agreement effect for binding as Agree. Ms. UC-Santa Cruz.
- Uchibori, Asako. 2000. The syntax of subjunctive complements: Evidence from Japanese. Doctoral Dissertation, University of Connecticut.
- Uriagereka, Juan. 1988. On government. Doctoral Dissertation, University of Connecticut.

- Uriagereka, Juan. 1999. Multiple spell-out. In *Working Minimalism*, ed. by Samuel David Epstein and Norbert Hornstein, 251-282. MIT Press, Cambridge, Ma.
- Valois, Daniel. 1991. The internal structure of DP. Doctoral Dissertation, University of California, Los Angeles.
- Vikner, Sten. 1985. Parameters of binder and binding category in Danish. In *Working Papers in Scandinavian Syntax 23*. University of Trondheim.
- Voort, Hein van der. 1994. *A Grammar of Kwaza*. Mouton de Gruyter, Berlin, New York.
- Wali, Kashi and Omkar N. Koul. 1997. *Kashmiri: A Cognitive-Descriptive Grammar*. Routledge London and New York.
- Wechsler, Steven and Larisa Zlatić 2003. *The Many Faces of Agreement*. Stanford, CA: CSLI Publications.
- Whitman, John. 1982. Configurationality parameters. Ms., Harvard University, Cambridge, Mass.
- Wolter, Lynsey. 2003. Demonstratives, definiteness and determined reference. In *Proceedings of NELS 34*, ed. by Keir Moulton and Matthew Wolf, 603-617. GLSA, Amherst.
- Woolford, Ellen. 1999. More on the anaphor agreement effect. *Linguistic Inquiry* 30: 257-287.
- Wurmbrand, Susi. 2004. Two types of restructuring: Lexical vs. functional. *Lingua* 114.8: 991-1014.
- Wurmbrand, Susi. 2006. Licensing Case. *Journal of Germanic Linguistics* 18.3: 175-236.
- Wurmbrand, Susi. 2007. How complex are complex predicates. *Syntax* 10: 243-288.
- Wurmbrand, Susi. 2011. Lecture notes. University of Connecticut.

- Zec, Draga and Sharon Inkelas. 1991. The place of clitics in the prosodic hierarchy. In *Proceedings of the 10th West Coast Conference on Formal Linguistics*, ed. by Dawn Bates, 505-519. Stanford, Calif.: CSLI Publications.
- Zlatić, Larisa. 1997a. The structure of the Serbian noun phrase. Doctoral Dissertation, University of Texas, Austin.
- Zlatić, Larisa. 1997b. Process nominals and anaphor binding in Serbian. In *Fourth Formal Approaches to Slavic Linguistics Conference Proceedings*, ed. by Wayles Browne et al. 464-487. Ann Arbor: Michigan Slavic Publications.
- Zlatić, Larisa, to appear. Slavic noun phrases are NPs not DPs. In *Comparative Slavic Morphosyntax*, ed. by George Fowler. Columbus: Slavica Publishers.
- Zribi-Hertz, Anne. 1997. On the dual nature of the ‘possessive’ marker in Modern English. *Journal of Linguistics* 33: 511-537.
- Zubizarreta, Maria Luisa. 1998. *Prosody, Focus and Word Order*. Cambridge: MIT Press.
- Zucchi, Alessandro. 1993. *The Language of Propositions and Events*, Kluwer Academic Publishers, Dordrecht.
- Zwart, Jan-Wouter. 2002. Issues relating to a derivational theory of binding. In *Derivation and Explanation in the Minimalist Program*, ed. by Samuel David Epstein & T. Daniel Seely, 269–304. Malden, MA: Blackwell Publishing.