

Pronouns at the Interface of Syntax and Discourse Structure

Ivana Jovović, PhD

University of Connecticut, 2023

This dissertation examines coreferential possibilities for different types of pronouns and argues that discourse conditions under which both the pronoun and the antecedent are used crucially constrain the interpretive possibilities for different pronominal elements. I first focus on Condition B in Serbo-Croatian, showing that certain cases involving possessor binding that were analyzed as Condition B violations in the literature are not binding violations, but a consequence of specific information-structural requirements of different pronominal elements. This leads me to establish a number of novel discourse-related constraints on coreferential readings of pronouns. I show that strong pronouns are licensed by focus, in more than one way, namely if (a) the antecedent bears new information focus, (b) the pronoun is contrastively focused, or (c) another element in the same sentence as the pronoun is contrastively focused. By contrast, weak pronouns (clitics, *pro*) are licensed if their antecedent functions as a discourse topic. I also show that coreferential readings in the corresponding cases from English are sensitive to the same discourse conditions as in the Serbo-Croatian cases. Based on this, I conclude that English also has a strong/clitic pronoun distinction. Furthermore, I demonstrate that pronominal licensing in intersentential/cross-clausal contexts is subject to information-structural constraints identical to those in possessor-binding cases, confirming irrelevance of Condition B there. I also discuss the relevance of discourse conditions on different types of pronouns for issues relating to pronominal competition and suggest that the weak/strong pronoun competition in the relevant cases can be thought of in terms of properties of antecedents. I extend this approach to pronouns in cataphora (contexts where the antecedent follows the pronoun), showing that the apparent blocking effect of focus in cataphora derives from the requirement that the antecedent of the pronoun has the property of aboutness. Finally, I discuss how the tests I used in comparing strong and weak coreferential pronominal forms fare in the contexts where both coreferential pronouns and anaphors are in principle possible, i.e. what they tell us about the pronoun/anaphor choice in such contexts.

Pronouns at the Interface of Syntax and Discourse Structure

Ivana Jovović

B.A., University of Sarajevo, 2013

M.A., University of Sarajevo, 2016

M.A., University of Connecticut, 2023

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

at the

University of Connecticut

2023

Copyright by

Ivana Jovović

2023

Doctor of Philosophy Dissertation

Pronouns at the Interface of Syntax and Discourse Structure

Presented by

Ivana Jovović, B.A., M.A., M.A.

Approved by

Major Advisor: Željko Bošković

Associate Advisor: Mamoru Saito

Associate Advisor: Adrian Stegovec

Associate Advisor: William Snyder

University of Connecticut

2023

Acknowledgments

My biggest thanks go to my major advisor, Željko Bošković. I am not much of a writer, but I don't believe words can do him justice anyway. Luckily, there is an army of people out there who have had a chance to meet him and learn from him and who I am sure feel the same way that I do. Let me just say that I will forever be thankful for the amount of time, effort and dedication he put into bringing me to the end of this road; it would not be possible without him. He believed in me and went to extreme lengths to get me to keep going forward (and I can be very difficult and very stubborn), even when I had completely given up on myself, and for that I will forever be indebted to him.

I would also like to thank the members of my committee, Mamoru Saito, Adrian Stegovec and William Snyder, for being part of this and sharing their insights with me.

Besides my committee members, I also wish to offer my thanks to several other people who were an important part of my education at UConn. To Magdalena Kaufmann, for expressing interest in my work and providing a number of helpful comments, but also for being a friend. To Norbert Corver and Guglielmo Cinque, who I've had the privilege to meet and learn from during my time at UConn. To Aleksandra Perović, for being willing to be part of my second generals committee and sharing her knowledge and experience with me.

I would especially like to thank Nedžad Leko, my first linguistics professor and now also my friend. None of this would have happened if it wasn't for him. Nedžad was the one who introduced me to linguistics and encouraged me to go to the United States to pursue a doctoral degree. I will always be grateful to him for everything he did for me (and there is so much more than I mention here) and for being my friend.

I would like to thank my cohort at UConn: Shengyun Gu, Mui Yang, Teruyuki Mizuno, and Nic Schrum, without whom the first year of graduate school would have been much more painful. I would

especially like to thank Shengyun and her mother, for hosting a number of amazing dinners for us. My thanks go to all the other graduate students at the department with whom I overlapped.

Special thanks go to the people that made this place feel like home, truly. To the Yunt-Stevenson family, who have given me tremendous amounts of love and support. I don't think I can ever thank them enough for everything they did for me. I am especially grateful to a tiny member of this family, Katherine Stevenson, for being my friend and bringing me so much joy! To my dear friends and roommates, Christos Christopoulos and Roberto Petrosino, for their friendship, support and patience. I will always cherish the years I spent living with them as they were some of the happiest in my life. To Dabney Waring, for numerous conversations, dinners, movies and much more that we shared.

I would like to thank my best friend Irina, for being my closest friend for more than twenty years now. I am not sure if I would be able to stay sane if it wasn't for all those hours of video chatting with her.

Никакви километри ни океани нас не могу раставити, ти си мој цвет, заувек.

Finally, I would like to thank my amazing family – my mother Vesna, my brothers Milan and Željko, my nieces Nađa and Nataša, and Goran, whom I never called 'dad' but who is like a father to me in every respect. I thank them for loving me as much as I love them; without them, nothing would make sense. The hardest aspect of this entire journey was being so far away from them, but I am grateful that the miles that physically separate us have taught me to enjoy every single moment we spend together. I would especially like to thank my mom, my biggest hero and my greatest friend, for being who she is. She is the most important person in my life and I dedicate this thesis to her. *Сваки мој уснјех је твој уснјех.*

Contents

CHAPTER 1	1
INTRODUCTION.....	1
1.1 Object of study	1
1.2 Basic concepts of information structure.....	6
1.3 Focus and stress.....	10
1.4 Competition approaches	13
1.5 Dissertation outline	16
 CHAPTER 2	 19
CONDITION B	19
2.1 Introduction	19
2.2 Despić's contrast	21
2.3 More than NP/DP	24
2.4 Discourse constraints on coreferential pronouns	31
2.4.1 Strong coreferential pronouns and the role of focus.....	32
2.4.2 Coreferential clitics.....	40
2.4.3 Weak and strong pronouns in English	42
2.4.4 Stress without context.....	47

2.5 Apparent and real Condition B.....	52
2.6 Implications for the nominal structure of SC	54
2.7 Conclusion.....	56
CHAPTER 3.....	57
INTERSENTENTIAL ANAPHORA	57
3.1 Introduction	57
3.2 Antitopicality of strong pronouns.....	59
3.2.1 Parallels with German demonstrative pronouns	67
3.3 Implications for competition	71
3.3.1 Competition in Serbo-Croatian.....	73
3.3.2 Overriding animacy restrictions	84
3.3.3 Back to German	87
3.4 Focus elsewhere	90
3.5 Conclusion.....	100
CHAPTER 4.....	103
PRONOUNS IN CATAPHORA	103
4.1 Introduction	103
4.2 Looking beyond the structure.....	104
4.3 Discourse constraints on cataphora	110

4.4 Weak-over-strong choice in cataphora	119
4.4.1 The effect of focus	120
4.5 Conclusion.....	122
CHAPTER 5.....	124
CONCLUSION	124
5.1 Summary	124
5.2 Extensions and open issues	127
5.2.1 The role of focus.....	127
5.2.2 Discourse conditions on coreferential pronouns vs. anaphors	129
REFERENCES.....	141

CHAPTER 1

INTRODUCTION

1.1 Object of study

This dissertation investigates coreferential possibilities for pronouns, both weak (i.e. clitic/null) and strong, as well as R-expressions. These are standardly discussed in terms of binding conditions, which pay attention to structural notions, like c-command and the binding domain, which is generally defined structurally. For example, in the canonical Binding theory (Chomsky 1981), Condition A states that anaphors like *herself* must be bound in their local domain, i.e. they must have a local, c-commanding antecedent, as in (1) below (see also Reinhart 1984).¹

(1) Mary₁ likes herself₁.

Anaphors are therefore acceptable only when they have a local c-commanding antecedent, but unacceptable if both of these conditions are not met. Thus, as shown in (2), an anaphor cannot have an antecedent which is local but does not c-command it; a c-commanding antecedent that is non-local cannot license the anaphor either, as shown in the example in (3).²

¹ In Chomsky (1981), the local domain is made explicit by the notion of a *governing category*, as defined in (i). In his framework, a governor of α is roughly an element assigning a thematic role (agent, theme, etc.) or Case to α .

(i) β is governing category for α if and only if β is the minimal category containing α , a governor of α , and a SUBJECT accessible to α . (Chomsky 2010: 211)

² Note that I am putting aside *perspectival* anaphors or *logophors*, which seem to be exempt from syntactic conditions of locality and are licensed by antecedents that function as logophoric centers (e.g. perspectival centers, subjects of consciousness, empathy loci, etc; see Clements 1975, Sells 1987, Kuno 1987, Zribi-Hertz

(2) *Friends of Mary₁ like herself₁.

(3) *Mary₁ thinks that John likes herself₁.

Unlike anaphors, pronouns must be free in their local domain. As shown in (4), a pronoun cannot be coreferential with a local, c-commanding antecedent. The intended interpretation is allowed if the antecedent does not c-command the pronoun, as in (5), or if the c-commanding antecedent is non-local to the pronoun, as in (6), where the antecedent *Mary* is in a separate clause.

(4) *Mary₁ likes her₁.

(5) A friend of Mary₁ disappointed her₁.

(6) Mary₁ thinks that John likes her₁.

By contrast, an R-expression must be disjoint in reference from any DP that c-commands it. Lasnik (1989) proposes a more restricted definition of Condition C that states that R-expressions must be disjoint from a c-commanding pronoun.³ As shown in (7) and (8), an R-expression cannot be co-indexed with a c-commanding pronoun, either local or non-local. The intended interpretation is allowed only if the pronoun does not c-command the R-expression, as is the case in (9).⁴

1989, Huang and Liu 2001, a.o.). For example, it is standardly assumed that the anaphor in (ia) is grammatical because its antecedent refers to the individual whose viewpoint is presented (i.e. *John*). This is, however, not the case in (ib): the anaphor in (ib) cannot be anteceded by the non-local antecedent *John* because the latter does not function as a perspectival center (unlike (ia), *Mary's* perspective is adopted in (ib)).

(i) a. John₁ said to Mary that there was a picture of himself₁ hanging in the post office.

b. *Mary said about/of John₁ that there was a picture of himself₁ hanging in the post office.

(Kuno 1987: 126)

³ This is based on his observation that in languages like Thai an R-expression allows coreference with a c-commanding R-expression, but not with a c-commanding pronoun.

⁴ Note also that there are approaches where a movement relationship is involved in binding condition effects. Kayne (2005), for instance, proposes that the antecedent-pronoun relation involves movement and argues that

(7) *He₁ likes John₁.

(8) *He₁ thinks that John₁ is amazing.

(9) An employee of his₁ likes John₁.

Regarding the interpretation of pronouns in particular, the standard line of research has typically focused only on structural conditions when discussing the coreferential possibilities for pronouns and Condition B more generally, the emphasis being on structural notions, namely c-command, and the distance between the antecedent and the co-indexed pronoun (see for example Chomsky 1981, 1986, Huang 1983, Lasnik 1989). However, authors like Reinhart (1981) observe that the assignment of reference to pronouns may depend on which element functions as the sentence topic in a given context. Consider in this regard the sentences in (10) and (11) (Reinhart 1981: 70):

(10) Felix₁ hit Max₂ and then he_{1/*2} hit Bill.

(11) Felix₁ hit Max₂ and then Bill₃ hit him_{2/*1}.

Reinhart notes that the pronoun in (10) is interpreted as coreferential with *Felix* under neutral intonation (i.e. when the pronoun is unstressed), but it cannot be interpreted as coreferential with *Max*. The coreferential possibilities for the pronoun in (11) are exactly the opposite: the pronoun can now only be coreferential with *Max*, not with *Felix* (as Reinhart observes, to get the alternative

both Condition B and Condition C effects follow from basic properties of pronouns and basic properties of movement, thus eliminating both Condition B and Condition C as primitives of UG. Hornstein 2001 (see also Drummond, Kush, and Hornstein 2011) also develops a movement-based theory of binding, focusing primarily on reflexive binding (for a different, Agree-based theory of reflexive binding, see Reuland 2001, 2005; see also Chomsky 1986 regarding LF anaphor movement). I leave aside such approaches to binding effects as they are not pertinent to the approach developed here.

coreference reading in both (10) and (11), the pronoun must be heavily stressed). However, as initially observed by Oehrle (1981), the interpretation of the pronoun in (10) changes radically if *Max* is understood to be the topic, as is the case in (12) and (13) (note that the pronoun in (12) and (13) is not stressed) (from Reinhart 1981: 71).

(12) As for Max₂, Felix₁ hit Max₂ and then he_{2/*1} hit Bill.

(13) A: *Can you give me an exact description of Max's role in the fight?*

B: Felix₁ hit Max₂ and then he_{2/*1} hit Bill.

A similar shift occurs in the interpretation of the pronoun in (11) if the context establishes *Felix* as the topic, as in (14). The pronoun in (14) is now interpreted as coreferential with *Felix*, not with *Max* (cf. (11) and (14)). These examples therefore show that discourse-pragmatic considerations, such as what the sentence topic is, may radically affect interpretation (i.e. co-indexing) possibilities of pronouns.

(14) As for Felix₁, first Felix₁ hit Max₂ and then Bill hit him_{1/*2}.

Kuno (1972) argues that whether the referent of the pronoun represents old or new information in the discourse plays an important role in anaphora resolution. More specifically, he observes that backward pronominalization is possible in English only if the antecedent following the pronoun represents old information. Consider in this regard examples in (15) and (16): the intended interpretation of the pronoun is much better in (15), where the referent of the pronoun represents old information (as indicated by the context given in (15)A), than in (16), where *Harry* represents new information (Kuno 1972: 302).

(15) A: *What do you suppose I did when I saw Harry getting mad?*

B: ?I calmed him₁ before Harry₁ did something rash.

(16) A: *Who do you suppose I calmed when I saw him getting mad?*

B: *I calmed him₁ before Harry₁ did something rash.

Furthermore, Kuno (1972) gives examples like (17) and (18) below that suggest that aboutness topicality (see Section 1.2 below) of pronominal antecedents is in fact relevant for the interpretation of pronouns in backward pronominalization or cataphora (I will show in Chapter 4 that it is in fact the aboutness property of antecedents, not their topicality, that is relevant for licensing coreferential pronouns in cataphora).

(17) A: *Tell me about John.*

B: Although I dislike him₁, I am still seeing John₁.

(18) A: *Tell me about Mary.*

B: *Although she dislikes him₁, she is still seeing John₁.

In spirit of the works noted above, in this dissertation I will argue that structural notions such as c-command and distance are not enough to capture co-indexing possibilities of pronouns. In particular, discourse conditions under which both the antecedent and the pronoun are used also crucially matter. I will show this by demonstrating that some cases that were previously analyzed as Condition B violations in the literature have nothing to do with Condition B; rather, what is at stake there are more general discourse effects that have nothing to do with binding conditions. Additionally, minimally different cases which have been argued in the literature not to involve Condition B violations configurationally can disallow coindexing under particular discourse conditions.

Consider, for instance, an example like (19) below from Serbo-Croatian (SC), which was previously analyzed as a Condition B violation (see Despić 2011, 2013).

(19) *Kusturicin₁ najnoviji film *ga*₁ je razočarao.

Kusturica's latest movie him_{CL} is disappointed

[intended] 'Kusturica₁'s latest movie disappointed him₁.'

However, the clitic pronoun in (19) can in fact be interpreted as coreferential with the possessor antecedent provided that the antecedent functions as an aboutness topic in the discourse, as is the case in (20), where the given context ensures that the antecedent of the clitic pronoun is interpreted as an aboutness topic.

(20) A: *What about Kusturica's latest movie? I know directors usually like their latest movies. Is it the case with Kusturica and his latest movie?*

B: Kusturicin₁ najnoviji film *ga*₁ je razočarao.

Kusturica's latest movie him_{CL} is disappointed

'Kusturica₁ latest movie disappointed him₁.'

I will examine cases like these in detail and establish a number of novel discourse-related constraints on coreferential readings of both clitic and strong pronouns.

1.2 Basic concepts of information structure

In this section, I will briefly define some information-structural notions, such as different types of topics and foci, since they will be crucial for pronominal licensing discussed in the following chapters.

Let us first consider the two types of topics that will be relevant for licensing coreferential clitic pronouns in particular – namely, *aboutness topics* and *discourse-given topics*. Reinhart (1981) defines the sentence topic in terms of the notion of *pragmatic aboutness*, namely, as the entity which the sentence is about (see also Kuno 1972). For example, the sentence in (21) below

is about *Mr. Morgan* as it predicates something of Morgan. Thus, *Mr. Morgan* is interpreted in discourse “as the expression whose referent the sentence is about” (Reinhart 1981: 57).⁵

(21) Mr. Morgan is a careful researcher and a knowledgeable semiticist, but his originality leaves something to be desired.

(Reinhart 1981: 54)

Reinhart further notes that a sentence topic cannot be defined directly on syntactic structures since different elements of the same sentence can serve as topics in different contexts of utterance. For example, if the sentence in (22) is uttered as an answer to the question *Who did Max see yesterday?*, *Max* will then be understood to be the topic expression. On the other hand, if it answers the question *Has anybody seen Rosa yesterday?*, *Rosa* and not *Max* will be the topic expression (Reinhart 1981: 56). Note also that the utterance in (22) has a different intonation in these two contexts.⁶

⁵ Reinhart (1981: 54) notes that both (i) and (ii) given below are in fact appropriate answers to the question what the sentence in (21) is about (i.e. what is its topic). However, she notes that it is not the same sense of aboutness that is used in (i) and (ii) as (21) “does not explicitly predicate anything of Mr. Morgan’s scholarly ability, though it provides some information about it”.

(i) (21) is about Mr. Morgan.

(ii) (21) is about Mr. Morgan’s scholarly ability.

She labels the aboutness relation expressed in (ii) *discourse topic* (see also Roberts 2011), noting that discourse topics are topics of larger units and can be more abstract, though not necessarily (*Mr. Morgan* in (21) above can be a discourse topic as well). According to Reinhart, the crucial point for the distinction between discourse topics and sentence topics is that the latter must correspond to an expression in the sentence (i.e. the topic expression). Note, however, that I will use the terms *sentence topic* and *discourse topic* interchangeably in the rest of the dissertation.

⁶ Note that there have been attempts to define the notion of a sentence topic in intonational terms, namely, as the non-stressed expression (Chomsky 1971, Jackendoff 1972, a.o.). As will be shown later, stress placement is in fact crucial for determining the status of pronouns in the discourse and consequently their interpretive possibilities.

(22) Max saw Rosa yesterday.

Based on Reinhart's (1981) observations, a common test has been established in the literature for identifying aboutness topics, namely, the so-called *Tell me about X test*, illustrated by the example in (23) below, where speaker A prompts the use of aboutness topicalization by speaker B. The topicalization of the phrase 'the Christmas Eve party' in (23)B then indicates that the sentence is about the Christmas Eve party.

(23) A: *Tell me something about the decadent Christmas Eve party you attended.*

B: At the *party*_{AT}, I drank way too much!

However, Frascarelli & Hinterhölzl (2007) and Bianchi & Frascarelli (2010) refine Reinhart's (1981) notion of aboutness topics to capture the fact that they can not only introduce the referent which the sentence is about, but also *shift* the conversation from being about one referent to being about another. The use of an *aboutness-shifting topic* is illustrated by the dialogue in (24), where speaker B shifts the sentence from being about *Chomsky* (as in (24)A) to being about *Pinker* (adapted from Lacerda 2020: 4).

(24) A: Peter read ten books by Chomsky this winter.

B: Now *by Pinker*_{AT}, he didn't read any book.

Discourse-given topics, on the other hand, primarily function to retrieve given information (in the sense of Schwarzschild 1999), that is, information that is already stored in the conversational common ground. This is illustrated in (25), where the PPs 'to Mary' and 'at the Christmas party' in (25)B refer back to referents that were already part of the conversational common ground by having been introduced by speaker A (discourse-given topics are indicated by the subscript GT).

(25) A: What did you give to Mary at the Christmas party?

B: I gave two books to *Mary*_{GT} at the *Christmas party*_{GT}.

Turning now to focus phenomena, the primary diagnostic that will be used in this dissertation to identify focused elements is the so-called *question-answer congruence* test. As Büring (2005: 4) states, “the material in the answer that corresponds to the *wh*-constituent in the (constituent) question is focused”. Thus, the new information focus in a sentence is the element which fills in a gap in the common ground content – that is, the element that answers the *wh*-expression in the question and expresses the alternative chosen from the set of possible answers (for relevant discussion, see Rooth 1985, a.o.). This is illustrated in (26), where *John* is the focalized element (as marked by the subscript F). This type of focus is also called *presentational focus* (Rochemont and Culicover 1990) or neutral new information focus.

(26) A: Who did Mary see?

B: Mary saw *John*_F.

A question like ‘What happened?’, on the other hand, invokes a context in which all elements of a sentence constitute new information focus. This is illustrated in (27). In contrast to (26), where only one element carries focus (the so-called *narrow* new information focus), sentences like (27) are *all-focus* sentences as they carry *broad* new information focus.

(27) A: What happened?

B: [Mary bought a house]_F.

Another discourse-pragmatics notion that will be pertinent to our investigation is contrastive focus (also called *identificational focus* (Kiss 1998)). Contrastive focalization is typically used in contexts of correction, where the contrastively focused element is used to negate

a proposition by asserting an alternative one. This is illustrated in (28). Unlike presentational focus, which simply asserts the membership of an individual in a set, contrastive focus involves selection of a subset out of set of alternatives. As shown in Kiss (1998), contrastive focus is often realized in English by a cleft construction or by association with a focus particle *only*.

(28) A: Mary kissed John.

B: No, she kissed *William*_{CT}.

Contrastive focus is not only semantically but also prosodically different from presentational focus, in that it is more prominent prosodically. Prosody, in particular, stress assignment, will in fact also be important in the investigation of pronominal licensing in this work.

1.3 Focus and stress

Throughout this dissertation, we will see that the relationship between information structure, prosody, and word order has to be taken into consideration when considering interpretation possibilities of various pronominal elements. More specifically, it will be shown that the position of a pronominal element in a sentence affects its prosodic properties, and consequently its information-structural status. It will be shown throughout the dissertation that these factors can crucially affect the interpretive possibilities of pronouns. In this regard, the placement of the main sentential stress will be particularly relevant.

It is well-known that languages can mark focus prosodically, by virtue of stress placement. When it comes to broad new information focus (i.e. when the entire sentence is new information, as in (27) above), focus is perceived as neutral in SC, which is the main focus of investigation in this work, if the word order of a sentence is canonical (i.e. SVO) and the main stress falls on the most embedded element. This would be the case in the SC counterpart of (27). In cases where only

one element of a sentence is focused (as was the case in (26) above), the focused element surfaces in a sentence-final position, following the presupposed material, and carries the main stress. Thus, in (29), the indirect object is focused, surfacing in the sentence-final position and carrying the main stress, while in (30), the direct object is focused, hence surfacing sentence-finally and carrying the main stress.⁷

(29) A: *Who is Marija giving the book to?*

B: Marija daje knjigu Petru_F.

Marija is.giving book_{ACC}. Petar_{DAT}.

‘Marija is giving the book to Petar.’

(30) A: *What is Marija giving to Petar?*

B: Marija daje Petru knjigu_F.

Marija is.giving Petar_{DAT}. book_{ACC}.

‘Mary is giving the book to Peter.’

Stjepanović (1999) shows that this type of focus is licensed prosodically in SC, by stress assigned by the Nuclear Stress Rule (NSR) (see Chomsky and Halle 1968, Cinque 1993, Zubizarreta 1998, among others), which, roughly, assigns stress to the most deeply embedded (hence sentence final) element.⁸ At any rate, the basic idea about the relationship of stress and focus, put forth by Jackendoff (1972) and Chomsky (1971), among others, is that the main sentential stress is an

⁷ Note that SC has free word order.

⁸ Contrastive focus, on the other hand, is licensed positionally in SC, by movement to a preverbal position, and is accompanied with heavy stress (see Stjepanović 1999 for more details).

identifier of focus such that the element that carries stress that is assigned by the NSR is identified as neutral focus.⁹

However, while in SC the main sentential stress falls on the most deeply embedded element, this is not always the case in English. In fact, certain types of phonologically realized constituents may be invisible to the NSR in English (see Bresnan 1972, Zubizarreta 1998). This is the case with constituents with reduced or null stress – for instance, functional categories such as determiners, auxiliaries, certain prepositions, defocalized and anaphoric constituents. Thus, in a neutral context, the main stress in cases like (31) from English falls on the verb, not on the pronoun.¹⁰ This is, however, not the case in SC: in (32) below, the pronoun carries the main sentential stress by virtue of being in a sentence-final position.

(31) John *kissed* her.

(32) Jovan je poljubio *nju*.

Jovan is kissed her_{STR.PRN}.

‘Jovan kissed her.’

I will show that the difference between English and SC in terms of stress placement in cases like (31) and (32) crucially affects the discourse status of the pronominal elements (i.e. whether they

⁹ In some cases, however, the main stress of the sentence is not perceived as neutral, like the stress on the pronouns in (i) below (from Stjepanović 1999: 93). Note that marked stress (which is associated with contrastive focus) has been argued to be assigned by a rule different from the NSR (see Chomsky and Halle 1968, Cinque 1993, Zubizarreta 1998, a.o.)

(i) SHE didn’t do it, HE did it.

¹⁰ English pronouns are such that if they bear main stress in examples like (31), they give rise to a contrastive focus meaning – that is, if the pronoun in (31) carries the main stress, the implication is that John kissed Mary rather than some other individual present in the context.

are interpreted as new information focus or not), which in turn determines their coreferential possibilities, in a way that is independent from traditional Condition B effects.

1.4 Competition approaches

There is another line of research that attempts to capture certain effects concerning co-indexing possibilities of pronouns that go beyond traditional Condition B effects, in addition to dealing with more standard binding condition effects. Under this approach, pursued in different ways by Reinhart (1983), Hornstein (2001), (2007), and Safir (2004), among others, pronouns are excluded in certain contexts as a consequence of the existence of reflexives. As also suggested in Chomsky (1973), in an environment which allows reflexives, such as (33), a non-reflexive pronoun, or an R-expression cannot be coreferential with the antecedent, as shown in (34) and (35) (from Reinhart 1983: 48). In other words, in the approaches under consideration the identity reading of the pronoun or the R-expression in (34) and (35) respectively is excluded because of the availability of the competing reflexive form. This approach therefore analyzes binding as a competitive process, in the spirit of an earlier approach to binding developed by Lees and Klima (1963).

(33) Zelda bores herself.

(34) *Zelda₁ bores her₁.

(35) *Zelda₁ bores Zelda₁.

Relatedly, it has also been observed that coreferential (strong) pronouns are sometimes outcompeted by null pronouns in environments that fall outside of the domain of traditional Condition B. As already noted by Chomsky (1981) in his *Avoid Pronoun Principle*, if a language

has both overt and null pronouns available, null pronouns are the preferred option. This is, for example, the case in SC: the strong pronoun in (36)a is ungrammatical under the intended interpretation even though there is no Condition B violation. The sentence becomes grammatical if a null pronoun is used, as in (36)b.

(36) a. *Jovan₁ misli da je on₁ pametan.

Jovan thinks that is he_{STR.PRN.} smart

b. Jovan₁ misli da pro₁ je pametan.

Jovan thinks that pro is smart

‘Jovan₁ thinks that he₁ is smart.’

Although this does not come within the purview of the Avoid Pronoun Principle and is discussed much less in the literature than alternations like those illustrated in (36), the same kind of effect is found for the alternation between clitic and strong pronouns – namely, clitic pronouns are generally preferred over strong pronouns in unmarked contexts. This is illustrated by SC (37), where Condition B is also not an issue.

(37) a. *Jovan₁ misli da studenti vole njega₁.

Jovan thinks that students love him_{STR.PRN.}

b. Jovan₁ misli da ga₁ studenti vole.

Jovan thinks that him_{CL.} students love

‘Jovan₁ thinks that students love him₁.’

The same holds in environments where the antecedent of the pronoun is a quantified expression. Montalbetti (1984) observes that an overt pronoun cannot be bound if an alternative, null pronoun is also available. This is illustrated in the examples (38)a and (38)b from Spanish (Montalbetti

1984: 82). Montalbetti also notes that clitic pronouns pattern similarly to null pronouns in that they can function as bound variables, in contrast to strong pronouns. This is shown in (39) (note that (39)a involves clitic doubling, where the second pronoun is strong) (Montalbetti 1984: 139).¹¹

(38) a. *Muchos estudiantes₁ creen que *ellos*₁ son inteligentes.

many students believe that they are intelligent

b. Muchos estudiantes₁ creen que *pro*₁ son inteligentes.

many students believe that *pro* are intelligent

‘Many students₁ believe that they₁ are intelligent.’

(39) a. *Muchos estudiantes₁ creen que Juan los vio [a ellos]₁.

many students believe that John them_{CL} saw them_{STR.PRN}.

b. Muchos estudiantes₁ creen que Juan los vio [e]₁.

many students believe that John them_{CL} saw

‘Many students₁ believe that John saw them₁.’

One prominent line of research analyzes the competition effects discussed above as resulting from an economy principle that favors structurally simpler pronouns over more complex ones, given that the preferred pronouns are assumed to be structurally simpler (Wiltschko 1998, Cardinaletti & Starke 1999, Déchaine & Wiltschko 2002, Patel-Grosz & Grosz 2017, Stegovec 2023, a.o.). I will examine such cases in Chapter 3 of the dissertation, primarily focusing on how discourse conditions under which the pronoun and the antecedent are used affect the choice of the pronominal element in such cases. However, my focus will not be on the overt vs. null pronoun cases, but clitic vs. non-clitic overt pronoun cases, which are much less discussed in the literature.

¹¹ The so-called Montalbetti’s effect also holds in SC (see Despić 2011).

I will argue that the competition between weak and strong pronouns in a number of relevant cases can be thought of in terms of discourse properties of antecedents, rather than the structural properties of pronouns themselves.

1.5 Dissertation outline

I now turn to the outline of the dissertation.

In Chapter 2, I focus on Condition B in SC and show that some cases that were previously analyzed as Condition B violations (i.e. cases involving possessor binding) in the literature have nothing to do with Condition B; rather, what is at work there are more general discourse effects that are independent of binding conditions. I will show that, in the relevant contexts, the (un)availability of coreferential interpretation of the pronouns correlates with specific information-structural properties of their antecedents, rather than the presence or absence of a c-command relation between the co-referring elements, as previously argued. This will lead me to conclude that the grammaticality status of constructions involving possessor binding (cf. (19)) is in fact independent of Condition B and that the possibility of coreference for pronouns in the relevant cases cannot tell us anything about the categorial (NP/DP) status of the nominal phrases containing the possessor, as previously argued. I will also show that traditional Condition B configurations in SC cannot be rescued by manipulating the relevant discourse factors. Based on these observations, I will establish a number of novel discourse-related constraints on coreferential readings of various pronominal elements. More precisely, it will be demonstrated that coreferential strong pronouns are licensed if the antecedent represents (narrow) new information focus, while clitic pronouns show a strong preference for antecedents that are discourse topics. Additionally, I will also show that these generalizations can be extended to pronouns in English, which will lead to the conclusion

that English has a strong pronoun/clitic distinction. By comparing the coreferential possibilities of pronouns in English and Serbo-Croatian respectively, I will show that stress assignment crucially affects the interpretation of pronouns and their discourse status, which will be further supported by the relevant binding data from Italian.

In Chapter 3, I will demonstrate that the coreferential possibilities for pronouns whose antecedents are located in a separate sentence are subject to information structure constraints which are identical to those observed in the contexts involving possessor binding discussed in Chapter 2. I will show that strong pronouns cannot be coreferential with antecedents that function as discourse topics; instead, they can only refer back to antecedents that represent new information focus. In that respect, they function as topic-shift devices, taking focused antecedents and turning them into new topics. By contrast, I will show that weak pronouns are most readily interpreted as coreferential with topic antecedents and thus serve to mark topic-continuity in the discourse. It will be demonstrated that the behavior of strong and weak pronouns in SC in this respect can be unified with the behavior of demonstrative and personal pronouns in languages like German. In addition, in this chapter I will introduce a third way of licensing coreferential strong pronouns (which I will show can be extended to demonstrative pronouns in German) – namely, by placing focus on elements other than the antecedent or the pronoun itself. Finally, in this chapter I will also discuss the relevance of discourse conditions on different types of pronouns for issues relating to pronominal competition and suggest that the competition between weak and strong pronouns in the relevant cases can be thought of in terms of properties of antecedents, rather than the structural properties of pronouns themselves.

In Chapter 4, I will examine discourse conditions on the coreferential interpretation of pronouns in cataphora (i.e. contexts where the antecedent follows the pronoun) and conclude, on

a par with the discussion in Chapters 2 and 3, that the constraints on pronouns in cataphora can similarly be explained via certain discourse requirements on the antecedent. More specifically, I will show that in configurations where pronouns linearly precede their antecedents, the latter must be established as aboutness phrases in the discourse in order for the coreferential interpretation of pronouns to be licensed. In relation to that, I will show that the apparent blocking effect of focus in cataphora in fact derives from the requirement that the antecedent of a pronoun has the property of aboutness. I will also discuss pronominal competition with respect to cataphora and conclude that the effect of competition in such configurations can also be derived based on these independent discourse conditions. Finally, it will be demonstrated that focus can exceptionally license strong pronouns in cataphora, on par with cases involving forward anaphora.

Chapter 5 concludes the dissertation and addresses certain open issues and potential extensions of the conclusions reached in the previous chapters, which includes a potential unification of the focus conditions on the use of coreferential strong forms established in the previous chapters and a discussion of discourse properties of relevant elements in cases where both pronouns and anaphors are possible, where the usual complementary distribution between anaphors and pronouns breaks down. In particular, I examine how the tests I used in comparing when coreferential strong and weak pronominal forms are used fare in the contexts where both coreferential pronouns and anaphors are in principle possible, i.e. what those discourse tests can tell us about the pronoun vs. anaphor choice in such contexts.

CHAPTER 2

CONDITION B

2.1 Introduction

As noted in Chapter 1, previous research has generally ignored, or de-emphasized discourse conditions when discussing the binding possibilities for pronouns, and Condition B more generally, the emphasis in the previous research on these issues being on structural notions, namely c-command, and the distance between the antecedent and the co-indexed pronoun. The relevance of these notions is illustrated in (40)-(42) below.

As shown in (40), a pronoun cannot be coreferential with an antecedent that c-commands it; if the antecedent does not c-command the pronoun, coreference is allowed, as illustrated in example (41).

(40) *John_i likes him_i.

(41) Pictures of John_i's father disappointed him_i.

However, another relevant factor that determines the coreferential possibilities for pronouns is the distance between the pronoun and the antecedent. Thus, a pronoun can be interpreted as coreferential with a c-commanding antecedent provided that the antecedent is 'distant' enough, e.g. part of a separate clause, as is the case in (42) below.

(42) John_i thinks that Mary likes him_i.

In this chapter, in the spirit of works like Reinhart (1981) and Kuno (1972), I will argue that these structural notions, c-command and distance, are not enough to capture co-indexing possibilities of pronouns. In particular, I will show that discourse conditions under which both the antecedent and the pronoun are used also crucially matter in ways that were not noted before. I will show this by demonstrating that some cases that were previously analyzed as Condition B violations in the literature have nothing to do with Condition B; rather, what is at work there are more general discourse effects that have nothing to do with binding conditions. I will then proceed to establish a number of novel discourse-related constraints on coreferential readings of various pronominal elements.

My starting point will be the following data from SC (noted by Despić 2011), where (43)a involves a strong pronoun and (43)b a clitic.

(43) a. *[Kusturicin₁ najnoviji film] je zaista razočarao *njega*₁.

Kusturica's latest movie is really disappointed him_{STR.PRN}.

b. *[Kusturicin₁ najnoviji film] *ga*₁ je zaista razočarao.

Kusturica's latest movie him_{CL} is really disappointed

[intended] 'Kusturica₁'s latest movie really disappointed him₁.'

Despić (2011) analyzes (43)a and (43)b as Condition B violations (for details of the analysis, as well as the corresponding construction in English, see section 2.2). I will argue that (43)a,b are not binding violations and show that coreferential readings of pronouns in (43) depend on pragmatic notions like topic/focus interpretation of the antecedent. In Despić's account, the categorial status of the subject in these examples, namely the lack of DP in SC (see Bošković 2008, 2012), also crucially matters here. My conclusions regarding the relevance of pragmatic notions like topic and focus will also lead me to argue that the categorial status of the traditional NP (TNP) in SC is in

fact not relevant here. To account for (43)a,b, which I argue do not involve Condition B violations, I will establish novel discourse conditions regarding when coreferential pronouns in SC are licensed – in particular, I will show that coreferential readings of weak/clitic pronouns are allowed if the antecedent is a discourse topic, while coreferential readings of strong pronouns will be shown to depend on focus, in more than one way in fact. I will show that these generalizations and conclusions extend to pronouns in English as well. Importantly, based on this I will argue that the strong pronoun vs. clitic distinction also applies in English.

In the following sections, I will first discuss Despić's account of (43) and the corresponding construction from English. To account for the relevant data, I will then establish new discourse constraints on coreferential pronouns, which will show that simply looking at structural relations like c-command and distance is not enough to capture when coreferential readings of pronouns are allowed.

2.2 Despić's contrast

Despić (2011, 2013) observes a very interesting binding contrast between SC and English illustrated in (43) (repeated here as (44)) and (45) (adapted from Despić 2013: 245):¹²

(44) a. *[NP Kusturicin₁ [najnoviji film]] je zaista razočarao *njega*₁.

Kusturica's latest movie is really disappointed him_{STR.PRN}.

¹² Note that Despić assumes a non-focused interpretation for the pronoun in (44). As will actually be discussed later, focus on pronouns can affect binding relations in important ways. Note also that clitics in SC occur in the second position of their intonational phrase, hence the difference in the placement of the pronominal elements (the strong pronoun and the clitic) in (44)a and (44)b (see Franks and King 2000, Bošković 2001, among others, for a detailed discussion).

b.*[NP Kusturicin₁ najnoviji film] *ga*₁ je zaista razočarao.

Kusturica's latest movie him_{CL} is really disappointed

[intended] 'Kusturica₁'s latest movie really disappointed him₁.'

(45) [DP Kusturica's₁ [latest movie]] really disappointed *him*₁.

Despić (see also Franks 2019a) accounts for the contrast in (44)-(45) in terms of Condition B: in particular, Despić argues that in contrast to English (45), the SC examples in (44) are ungrammatical because of Condition B, the crucial difference being the categorial status of the noun phrase in SC and English respectively. More specifically, Despić adopts Bošković's (2008, 2012) proposal that languages fall into two broad types – those in which the extended nominal projection includes a DP layer (like English) and those in which it does not (SC). Based on a number of syntactic and semantic tests, Bošković (2008, 2012) argues that the presence or absence of articles in a language is not merely a PF phenomenon but corresponds to an important structural difference. In relation to that, Despić (2011, 2013) analyzes (44) as involving a Condition B violation and argues that the proposed NP/DP distinction is responsible for the contrast between (44) and (45). Thus, in SC neither the pronoun in (44)a nor the pronominal clitic in (44)b can be interpreted as coreferential with the possessor that is inside the subject NP, whereas such coreference is permitted in English. Despić argues that the data in (44) and (45) can be accounted for if the DP, which is the highest projection within the English nominal domain (given in bold in (45)), prevents the possessor *Kusturica's* from c-commanding anything that is outside of the subject phrase. If so, the coreference of the pronoun and the possessor in (45) is allowed – it does not induce a Condition B violation (since the antecedent does not c-command the pronoun). By contrast, the parallel example from SC is ungrammatical under the intended interpretation. Despić claims that this contrast between English and SC is immediately accounted for if the DP is indeed

missing in SC and the possessor as a result c-commands out of the subject NP in (44). The ungrammaticality of (44) is then a classic Condition B effect because the pronoun (or the clitic in (44)b) is bound locally, i.e. c-commanded and co-indexed with an antecedent that is in the same binding domain.

I will argue that the pattern in (44)-(45) is best captured in terms of certain discourse constraints on coreferential pronouns and that the contrast in (44)-(45) is actually not relevant to the issue of the categorial status of nominal phrases in English and SC, i.e. it does not tell us anything about it.

To this end, I will show that the possibility of coreference in configurations like (44)-(45) does not correlate with the proposed structural difference in the manner predicted by Despić's account but instead crucially depends on the notions of topic and focus. I will demonstrate that coreference is in principle possible even when under the analysis proposed in Despić, the pronoun is c-commanded by a local antecedent, as in SC example in (44), and conversely, that it can also be disallowed when, under Despić's analysis, the antecedent does not c-command the pronoun, as in English (45). This will lead me to argue that (44) is not a Condition B effect. Furthermore, I will show that, unlike (44), clear Condition B violations in SC cannot be rescued by manipulating the relevant discourse factors.¹³

The rest of the chapter is structured as follows. In Section 2.3 I specify the assumptions pertaining to the structure of nominal phrases in English and SC respectively, as assumed in Despić (2011, 2013), and show that the NP/DP distinction is actually not enough to derive the

¹³ Additionally, in Chapter 3 I will show that the same constraints on coreferential pronouns observed below regarding (44) also hold at the level of discourse where Condition B is uncontroversially not at issue, thus further supporting my claim that (44) should not be analyzed as a Condition B violation.

contrast in (44)-(45). Importantly, the observations I make in this respect are not meant to argue for or against the NP analysis of SC – in fact, the NP/DP structural difference between English and SC is assumed throughout this work, as in Despić (2011, 2013), based on Bošković (2008, 2012). The central claim will be that coreference in cases like (44) should not be treated as a Condition B violation – that is, I will argue that the categorial status of the relevant nominals is simply irrelevant for coreference in cases like (44) and (45). In Section 2.4 I will discuss the interaction of topicalization and focalization with pronominal reference and establish a number of novel discourse conditions on licensing of coreferential readings of pronouns. Thus, I will show that coreferential clitics are allowed if their antecedent functions as a discourse topic, while the relevant interpretation of strong pronouns is licensed by focus – by focalizing the antecedent or the pronoun itself. Furthermore, I also observe that English pronouns are sensitive to the discourse conditions in question, on a par with SC strong and clitic/weak pronouns, and suggest that English also makes a strong/weak distinction in its pronominal system, as also independently argued by Bošković (1997, 2004). In Section 2.5, I tease apart clear Condition B violations from cases like (44) above, crucially showing that the two pattern differently with respect to the above discourse conditions. Finally, in Section 2.6, I discuss some implications of the discussion in this chapter for the nominal structure of SC. Section 2.7 concludes the chapter.

2.3 More than NP/DP

Despić (2011, 2013) (see also Franks 2019a) argues that binding facts in SC and English show that SC, unlike English, lacks a DP projection in its nominal domain, thus providing additional support

for Bošković's (2008, 2012) NP/DP parameter.¹⁴ The binding difference in these two languages that is the crux of his argument is given in (44)-(45) above, repeated here as (46)-(47): unlike English (47), SC strong pronouns (46)a and clitic pronouns (46)b alike disallow coreference with the antecedent that is within the subject phrase (adapted from Despić 2013: 245):

(46) a. *[NP Kusturicin₁ [najnoviji film]] je zaista razočarao **njega**₁.

Kusturica's latest movie is really disappointed him_{STR.PRN}.

b. *[NP Kusturicin₁ najnoviji film] **ga**₁ je zaista razočarao.

Kusturica's latest movie him_{CL} is really disappointed

[intended] 'Kusturica's latest movie really disappointed him₁.'

(47) [DP Kusturica's₁ [latest movie]] really disappointed **him**₁.

As indicated in Section 2.1, Despić argues that (46) and (47) can be accounted for if English nominal phrases include a DP layer, which in turn prevents the possessor in cases like (47) from c-commanding anything outside of the subject. By contrast, the ungrammaticality of SC example in (46) follows if DP is not projected in SC and the possessor therefore c-commands the pronoun in (46), giving rise to a Condition B violation.¹⁵ In this section I will spell out some key theoretical underpinnings of Despić's approach and show that the contrast in (46)-(47) cannot in fact be derived solely in terms of the NP/DP difference.

Assume, for instance, that possessors in (46)-(47) occupy the SpecNP and SpecDP position respectively, as in (48):

¹⁴ Other authors have also argued that SC lacks a DP projection (see Corver 1992, Zlatić 1997, Marelj 2011, Takahashi 2013, Runić 2014, Talić 2017, among others).

¹⁵ Despić (2011, 2013) adopts the following definition of 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 co-indexed NP.*

- (48) a. [_{NP} Kusturica's [_{N'} [_{NP} latest movie]]] *SC*
 b. [_{DP} Kusturica [_{D'} s [_{NP} latest movie]]] *English*

Given the standard assumption that, unlike adjoined elements, specifiers do not c-command out of their phrase, then no violation should occur in (46) either. Thus, unless we assume that possessors are specifiers in English and adjuncts in SC, an approach like this predicts that English and SC binding facts would be identical regardless of the NP/DP distinction – namely, if there is no c-command between the possessor that is the specifier of the NP in (46) and the co-indexed pronoun, we expect the coreference in (46) to be allowed, as in English (47), contrary to fact. Note, however, that if we assume that possessors are specifiers in English and adjuncts in SC, then the NP/DP distinction is no longer necessary – that is, the binding contrast could be accounted for even if a DP projection were present in both languages, as long as possessors are analyzed as DP adjuncts in SC and DP specifiers in English.

What is, however, important here is that Despić adopts Kayne's (1994) system where there is no specifier-adjunct distinction in the first place, i.e. all specifiers are adjuncts in Kayne's antisymmetric view of syntax, hence they c-command out of the phrase where they are located. In addition, following Kayne (1994), he assumes that English possessors are located in PossP that is immediately dominated by DP, the DP preventing the possessive from c-commanding out.¹⁶ The

¹⁶ Kayne (1994) follows Szabolcsi's (1981, 1983, 1992) analysis of Hungarian possessives and proposes that (a) the possessor in English is embedded within a Possessor Phrase that is dominated by a DP with a null D head, and (b) the specifier position of the null DP is an operator position where quantificational phrases move to in LF (the term 'specifier' is used for convenience only; again, for Kayne, all specifiers are adjuncts). The motivation for (a)-(b) comes from the contrasts in (i)-(iii). A bound variable interpretation of the pronoun in (i) is allowed given that the quantifier moves to a c-commanding position from which it binds the variable. (An alternative is that the quantifier undergoes QR, which enables the binding here, see Ernst 2001 (for relevant discussion, see also Section 2.6 below)). (ii) is still excluded: the anaphor cannot be bound by the quantifier *every girl*. Kayne

resulting structures for SC and English nominal phrases are given in (49) below. Given (49), Despić is able to account for the facts in (46)-(47): (46) is an instance of a Condition B violation since the possessor is an adjunct which, by virtue of being dominated only by a segment of the NP, c-commands out of that NP, while there is no violation in (47) as the possessor in English is embedded within PossP that is dominated by DP.^{17,18} Crucially, note that the presence vs. absence of DP is not the only difference between (49)a and (49)b.

(49) a. [_{NP} Kusturica's [_{NP} latest movie]] SC

b. [_{DP} ... [_{DP} D [_{PossP} Kusturica [_{PossP} 's [_{NP} latest movie]]]]] *English*

assumes that SpecDP is invisible to binding conditions, by which he seems to mean that it is not an A-position. Thus, although the possessor moves in LF to SpecDP and gets to c-command the reflexive in (ii), this c-command relation does not suffice to license the latter since from the position that matters for Condition A, SpecPossP, *every girl* does not c-command the reflexive (Kayne 1994: 26). For the same reason, the coindexation between the pronoun and the R-expression in (iii) is allowed: possessors in SpecPossP do not c-command out (given that the DP dominates the possessor but not the pronoun). Given that, Kayne assumes that (iv) is illicit not because there is a closer potential antecedent (*John's mother*), but because the possessor does not c-command the anaphor from the SpecPossP position.

(i) Every girl₁'s father thinks that she₁ is a genius.

(ii) *Every girl₁'s father admires herself₁.

(iii) John₁'s girlfriend loves him₁.

(iv) *John₁'s mother loves himself₁.

¹⁷ 'X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y' (X excludes Y if no segment of X dominates Y) (Kayne 1994: 24).

¹⁸ When it comes to the structure of NPs in SC, Despić (2013, 2011) follows Bošković (2008, 2012), who argues that all prenominal modifiers (with the exception of certain quantifiers and numerals) in SC, including possessives, demonstratives and adjectives, are NP-adjoined (they are in fact all morphologically adjectives). However, note also that Bošković's (2008, 2012) NP/DP approach explicitly allows for projections lower than DP but higher than NP in languages without articles. This could be taken to imply that SC should also have a PossP, which in turn would have a negative effect on Despić's account (unless the possessor is PossP-adjoined).

However, as Despić notes, functional structure is not completely lacking in the SC nominal domain. Following Franks (1994) and Bošković (2006), he shows that certain numerals and quantifiers (in particular, those that assign genitive case to the element that follows them) project a QP in SC. By projecting a QP, these elements confine the c-command domain of possessors, allowing them to co-refer with other elements without causing a binding violation. The contrast between (50) and (51) then provides evidence that additional structure is present only in (51), not (50).

(50) *[_{NP} Kusturicin₁ [_{NP} prijatelj]] je kritikovao *njega*₁.

Kusturica's friend is criticized him_{STR.PRN}.

[intended] 'Kusturica₁'s friend criticized him₁.'

(51) [_{QP} Mnogo [_{NP} Kusturicinih₁ [_{NP} prijatelja]] je kritikovalo *njega*₁.

many Kusturica's friends is criticized him_{STR.PRN}.

'Many Kusturica₁'s friends criticized him₁.'

Note, however, that (52) below is grammatical even though there is no additional structure that would prevent the possessor from c-commanding the pronoun under Despić's assumption (from Despić 2011: 58). Since the possessor c-commands the pronoun in (50) and (52), but not in (51), it is expected that both (50) and (52) would be ungrammatical under the intended interpretation. Despić offers the following solution. He proposes that the pronoun in (52) is actually part of a separate binding domain (delineated by square brackets in (52)) which creates a blocking effect, hence coreference is allowed.

(52) Kusturicin₁ najnoviji film je zaista razočarao [_{NP} *njegovog*₁ prijatelja].

Kusturica's latest movie is really disappointed his friend

'Kusturica₁'s latest movie really disappointed his₁ friend.'

Note, however, that without additional assumptions, this analysis may predict that a possessive reflexive *svoj* should not be licensed in the position occupied by the possessive pronoun in (52) because reflexives must be in the same binding domain as their antecedents. However, reflexives are grammatical in such cases, as shown in (53). This indicates that the NP in (52) should not constitute a separate binding domain.¹⁹

¹⁹ For this reason, Despić assumes that the binding domain is calculated differently for reflexives and pronouns – for reflexives, the minimal binding domain in DP-less languages is a vP, not an NP (Despić 2011: 93). This amounts to saying that the NP constitutes a separate binding domain in (52), but not in (53). Defining the binding domain for pronouns in a different manner is necessary in his approach because of the contrast between (i) (= (52) above) and (iv) (= (50)) – given that (iv) is treated as a Condition B violation, (i) should also be ungrammatical, unless the NP in (i) introduces a separate binding domain. However, even the latter assumption does not suffice – as Despić himself acknowledges, Condition B alone cannot capture the behavior of pronouns in SC. He therefore proposes that Safir's (2004) competition approach to binding should be adopted alongside Condition B, though the logic behind Safir's approach is to derive the complementarity between pronouns and reflexives precisely in terms of competition and eliminate traditional Conditions A and B from the theory. Consider the paradigm in (i)–(v). We have already established that the contrast between (i) and (iv) is reduced to the issue of the binding domain under Despić's analysis – (i) is grammatical because the pronoun is embedded within the NP, unlike the pronoun in (iv). However, (ii) may then be expected to be grammatical, on a par with (i). Despić claims that (ii) is ruled out because a competing anaphor is available in the same position, as shown in (iii). Note that this does not extend to (iv), where an anaphor is unavailable under the intended interpretation, as shown in (v) (note that SC reflexive anaphors are subject-oriented). As noted above, the ungrammaticality of (iv) is therefore assumed to be a Condition B effect.

(i) Kusturicin₁ najnoviji film je zaista razočarao [_{NP} *njegovog*₁ prijatelja].

Kusturica's latest movie is really disappointed his friend

'Kusturica₁'s latest movie really disappointed his₁ friend.'

(ii) *Kusturica₁ je prodao [_{NP} *njegovu*₁ knjigu].

Kusturica is sold his book

[intended] 'Kusturica₁ sold his₁ book.'

(iii) Kusturica₁ je prodao [*svoju*₁ knjigu].

Kusturica is sold self's book

'Kusturica₁ sold his₁ book.'

(53) Kusturica₁ je prodao [_{NP} *svoju*₁ knjigu].

Kusturica is sold self's book

‘Kusturica₁ sold his₁ book.’

In sum, I showed that the binding contrast between English and SC in (46)-(47) cannot be derived solely on the basis of the presence or absence of the DP projection, as argued in Despić (2011, 2013). The purpose of the NP/DP distinction in Despić's system is to reduce the contrast in (46) and (47) to the issue of c-command between possessors and pronouns. However, I showed that it is necessary to introduce additional distinctions between the relevant nominal phrases in English and SC in order to account for the contrast between (46) and (47) in terms of c-command. It was demonstrated that possessives in English must be part of a separate projection PossP, dominated by DP which prevents the possessor from c-commanding out. By contrast, possessives in SC are directly adjoined to the NP. Thus, the structural distinction between the two languages is actually two-fold: SC nominal phrases lack not only DP, but also PossP.²⁰ Finally, (52) showed that the system also requires a particular definition of a binding domain for pronouns such that coreference in (52) is acceptable despite the fact that the antecedent c-commands the pronoun.

(iv) *Kusturicin₁ prijatelj je kritikovao *njega*₁.

Kusturica's friend is criticized him_{STR.PRN}.

[intended] ‘Kusturica₁'s friend criticized him₁.’

(v) *Kusturicin₁ prijatelj je kritikovao *sebe*₁.

Kusturica's friend is criticized self

[intended] ‘Kusturica₁'s friend criticized him₁.’

²⁰ This is necessary under Kayne's system, adopted by Despić, where there is no specifier-adjunct distinction and all specifiers are adjuncts. If one maintains a distinction between specifiers and adjuncts, then that distinction would be enough to derive the binding contrast between English and SC, even without having the DP-or-not distinction.

As the example in (53) indicates, this may be problematic when reflexives are brought into the picture (see also fn. 19).

2.4 Discourse constraints on coreferential pronouns

In Despić's approach, the binding contrast in (46)-(47) above amounts to the issue of c-command between the coreferential elements. In this section I will argue that the availability of the relevant interpretation in (46)-(47) in fact depends on certain discourse properties of the antecedent and show that coreference is in principle possible even when under the analysis proposed in Despić (2011, 2013) the pronoun is c-commanded by a local antecedent, as is the case with SC (46), and conversely, that it can also be disallowed when under Despić's analysis the antecedent does not c-command the pronoun, as is the case in (47). I will therefore conclude that (46) is not a Condition B violation and, more generally, that the coreference relationship in question is not a reliable test for probing the structure of the nominal domain, including c-command relations, in examples like (46)-(47).

Consider (54)-(56) (with the contexts given there): coreferential readings of strong and clitic pronouns in SC are allowed in (55)-(56) respectively, in contrast to (54), where both are ruled out on a par with Despić's (46).²¹ If (54) is ungrammatical because of Condition B, as

²¹ Unless otherwise specified, all sentences should be read with a neutral intonation, where the final item typically bears nuclear stress, but importantly not contrastive stress (as will be shown below, contrastive stress improves the acceptability of coreferential pronouns). Note in that regard that strong pronouns in both (54) and (55) bear the main sentential stress which is prosodically heavy, but not as heavy as contrastive stress. However, for the relevant reading to be licensed in (54), the pronoun needs to be stressed even more (and therefore interpreted contrastively), which is not the case for (55). Thus, the comparison between (54)-(55) shows that stress on the pronoun does not always need to be contrastive in order to license the coreferential reading of the pronoun, hence (55) is better than (54) under a neutral/non-contrastive interpretation.

Despić argues, then no coreferential pronoun should be allowed in (55)-(56) either since the latter are structurally identical to (54)-(56). I will show below that the crucial factor that determines the interpretive possibilities for the pronouns in (54)B-(56)B is actually the discourse status of the antecedent, as specified by the context questions given in (54)A-(56)A for each utterance in (54)B-(56)B (note, however, that a clitic in (54)B is ruled out independently of coreference, for reasons to be discussed below).

(54) A: *Who did Kusturica's latest movie disappoint?*

B: Kusturicin₁ najnoviji film (**ga*₁) je razočarao (**njega*₁)

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

[intended] 'Kusturica₁'s latest movie disappointed him₁.'

(55) A: *Whose latest movie disappointed whom?*

B: Kusturicin₁ najnoviji film (**ga*₁) je razočarao (✓*njega*₁).

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

'Kusturica₁'s latest movie disappointed him₁.'

(56) A: *What about Kusturica's latest movie? I know directors usually like their latest movies. Is it the case with Kusturica and his latest movie?*

B: Kusturicin₁ najnoviji film (✓*ga*₁) je razočarao (**njega*₁).

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

'Kusturica₁'s latest movie disappointed him₁.'

2.4.1 Strong coreferential pronouns and the role of focus

In this section, I will argue that a strong pronoun coreferential with a possessor antecedent in constructions like (54)-(56) above is only grammatical if the antecedent meets certain discourse

requirements. Consider in this regard (55) above, repeated here as (57). In contrast to (54)B and (56)B, repeated here as (58)B and (59)B, the antecedent of the strong pronoun in (57)B represents narrow new information focus as it corresponds to the *wh*-constituent provided in the context question in (57)A (the so-called question-answer congruence test, Büring 2005: 4). The relevant interpretation of the strong pronoun is allowed here, as opposed to (58)B and (59)B, where strong coreferential forms are ruled out.²²

²² Note that nothing changes if the context question is D-linked, as shown in (i)-(ii) below. Note also that the same observations hold if the pronouns are plural, as in (iii)-(v).

(i) A: *Which director's latest movie disappointed whom?*

B: Kusturicin₁ najnoviji film (**ga*₁) je razočarao (✓*njega*₁).

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

'Kusturica's latest movie disappointed him.'

(ii) A: *Which man did Kusturica's latest movie disappoint?*

B: Kusturicin₁ najnoviji film (**ga*₁) je razočarao (**njega*₁).

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

[intended] 'Kusturica's latest movie disappointed him.'

(iii) A: *Whose latest movie disappointed whom?*

B: Kusturicin i Šijanov₁ najnoviji film (**ih*₁) je razočarao (✓*njih*₁).

Kusturica's and Šijan's latest movie them_{CL} is disappointed them_{STR.PRN}.

'Kusturica and Šijan's latest movie disappointed them.'

(iv) A: *Who did Kusturica and Šijan's latest movie disappoint?*

B: Kusturicin i Šijanov₁ najnoviji film (**ih*₁) je razočarao (**njih*₁).

Kusturica's and Šijan's latest movie them_{CL} is disappointed them_{STR.PRN}.

[intended] 'Kusturica and Šijan's latest movie disappointed them.'

(v) A: *What about Kusturica and Šijan's latest movie? I know directors usually like their latest movies. Is it the case with Kusturica and Šijan?*

B: Kusturicin i Šijanov₁ najnoviji film (✓*ih*₁) je razočarao (**njih*₁).

Kusturica's and Šijan's latest movie them_{CL} is disappointed them_{STR.PRN}.

Kusturica and Šijan's latest movie disappointed them.'

(57) A: *Whose latest movie disappointed whom?*

B: Kusturicin₁ najnoviji film (**ga*₁) je razočarao (✓*njega*₁).

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

'Kusturica₁'s latest movie disappointed him₁.'

(58) A: *Who did Kusturica's latest movie disappoint?*

B: Kusturicin₁ najnoviji film (**ga*₁) je razočarao (**njega*₁)

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

[intended] 'Kusturica₁'s latest movie disappointed him₁.'

(59) A: *What about Kusturica's latest movie? I know directors usually like their latest movies. Is it the case with Kusturica and his latest movie?*

B: Kusturicin₁ najnoviji film (✓*ga*₁) je razočarao (**njega*₁).

Kusturica's latest movie him_{CL} is disappointed him_{STR.PRN}.

'Kusturica₁'s latest movie disappointed him₁.'

Contrary to (57)B, the antecedent of the pronoun in (58)B and (59)B is not new information focus; rather, it represents discourse-given information in (58)B (see (58)A), while in (59)B it functions as a discourse topic/aboutness phrase, as the *What about X* test applied in (59)A forces its topic construal (Reinhart 1981). Given that (57)B-(59)B differ only in terms of the discourse properties of the antecedent, it follows that strong coreferential pronouns are licensed by antecedents that are

new information focus and, conversely, that they are disallowed if coreferential with antecedents that represent given information or function as discourse topics.^{23,24}

If what is licensing coreference between the strong pronoun and the possessor in cases like (57)B above is the discourse status of the antecedent – that is, the fact that the antecedent represents new information focus, then it is predicted that a strong pronoun would also be acceptable in ‘What happened?’ contexts, where the antecedent would be part of new information focus as well. However, this prediction is not borne out, as illustrated in (60) below.

(60) A: *What happened?*

B: *Kusturicin₁ najnoviji film je razočarao *njega*₁.

²³ For the moment, I am putting aside contrastively focused strong pronouns. As will be shown below, contrastive focus always makes coreference better, even if the above antecedent requirement is not met.

²⁴ There is an interfering factor that may affect the overall acceptability of the strong coreferential form in examples like (57)B. Namely, some speakers need the pronoun to be heavily stressed when it surfaces in a sentence final position, as in (57)B. This is because they find it unnatural to have the pronoun sentence-finally (unless heavily stressed) rather than in a preverbal position. Thus, some speakers find (ib) more natural than (ia) unless the pronoun in (ia) is heavily stressed, as is the case in (ii). Presumably, this is so because these speakers prefer that functional elements do not receive stress through the nuclear stress rule (NSR) (the main stress, assigned by the NSR, falls on the pronoun in (ia) and on the verb in (ib); for more details regarding the NSR, see Section 2.4.4).

(i) a. ?Jovan je poljubio nju.

Jovan is kissed her

b. Jovan je nju poljubio.

Jovan is her kissed

‘Jovan kissed her.’

(ii) Jovan je poljubio NJU (a ne Anu).

Jovan is kissed her (and not Ana)

‘Jovan kissed her (and not Ana).’

Kusturica's latest movie is disappointed him_{STR.PRN}.

'Kusturica₁'s latest movie disappointed him₁.'

Given the contrast between (57)B-(60)B above, it is necessary to distinguish between narrow new information focus and broad new information focus, i.e. the type of focus attested in 'What happened?' contexts where the entire sentence represents new information. It is only when the pronoun's antecedent carries the former type of focus that the coreferential readings of strong pronouns are licensed. Thus, coreference between the possessor and the pronominal is not allowed as an answer to a 'What happened?' question, as shown in (60) above.

There are quite a few works that make important distinctions between narrow new information focus and broad focus, both semantically and prosodically. The targeted notion of focus (which is the former one) that licenses coreference is a very general kind of focus that introduces an alternatives set in the semantic interpretation (Rooth 1992, 1996), which has been argued to have a special status in the grammar in contrast to broad focus. Katz and Selkirk (2011), for example, give evidence from phonetic properties that supports a grammatical distinction between narrow new information focus and broad focus – they find that broad focus sentences realize a lower degree of phonetic prominence than sentences with narrow new information focus (see also Kratzer and Selkirk 2020, Selkirk 2008). In other words, while all-new/broad focus sentences have been shown to display a default prosody, narrow focus sentences are prosodically marked in comparison. Katz and Selkirk's (2011) finding that the two types of focus are phonetically and phonologically distinct also complements arguments that these two types of foci must be distinguished by the semantics (see Kratzer and Selkirk 2011) (crucially, note that Katz and Selkirk (2011) and Kratzer and Selkirk (2020) make a distinction between narrow new

information focus constituents and discourse-new constituents (in broad focus sentences where all constituents are discourse-new) based on their finding that the latter are not prosodically marked).

The distinction between narrow and broad new information focus has been found to be relevant for quantifier binding as well. As noted by Zubizarreta (1998), the object QP *every boy* in cases like (61) below may bind the pronoun contained within the subject if and only if the subject is (narrowly) focused in English as well as other languages (e.g. French and Spanish). The relevant interpretation is not possible under a wide focus interpretation (i.e. as an answer to ‘What will happen?’), as shown in (61)b.²⁵

(61) a. [_F His₁ mother] will accompany every boy₁ the first day of school.

b. *[_F His₁ mother will accompany every boy₁ the first day of school].

Returning to the SC example in (57) above and the licensing of strong coreferential pronouns, it was shown above that narrow new information focus (but not broad new information focus) plays a crucial role in licensing strong coreferential pronouns in SC (cf. (57)B-(60)B). Importantly, note that narrow new information focus licenses the strong form only if placed on the

²⁵ Note in this regard that while the coreferential readings of strong pronouns in SC are not acceptable in broad focus contexts (see example (60) above), the intended interpretation becomes available if the subject is narrowly focused, as in (i) below. Thus, the coreferential interpretation of strong pronouns in SC can be licensed by narrow focus if the antecedent alone carries narrow focus, as was the case in (57) above, or if the entire subject, which contains the antecedent, is focused, as in (i).

(i) A: *What disappointed whom?*

B: [Kusturicin₁ najnoviji film]_F je razočarao *njega*₁.

Kusturica’s latest movie is disappointed him_{STR.PRN}.

‘Kusturica₁’s latest movie disappointed him₁.’

antecedent, not on the pronoun itself. The latter was the case with (58)B above, repeated here as (62)B, where the strong pronoun also bears main sentential stress.

(62) A: *Who did Kusturica's latest movie disappoint?*

B: *Kusturicin₁ najnoviji film je razočarao **njega**₁.

Kusturica's latest movie is disappointed him_{STR.PRN}.

[intended] 'Kusturica₁'s latest movie disappointed him₁.'

Note also that contrastively focused antecedents cannot license the relevant reading of the strong pronoun either, as shown by (63)B, where the possessive that is coreferential with the pronoun is contrastively focused (capital letters mark contrastive focus). Importantly, if placed on the pronoun, contrastive focus can license the relevant interpretation, even if the antecedent has been previously introduced in the discourse. This is shown in (64)B below, where the pronoun itself is contrastively focused.

(63) A: *Kusturica's latest movie disappointed Šijan.*

B: Ne. *ŠIJANOV₁ najnoviji film je razočarao **njega**₁.

no. Šijan's latest movie is disappointed him_{STR.PRN}.

[intended] 'No. Šijan₁'s latest movie disappointed him₁.'

(64) A: *Did Kusturica's latest movie disappoint his sister?*

B: Ne. Kusturicin₁ najnoviji film je razočarao **NJEGA**₁.

no. Kusturica's latest movie is disappointed him_{STR.PRN}.

'No. Kusturica₁'s latest movie disappointed him₁ (not his sister).'

Another way to license the relevant interpretation when the antecedent requirement for strong pronouns is not met is by associating the pronoun with the focus particle *only* (SC *samo*), as in the

example (65) below. Note, however, that both instantiations of focus – prosodically marked contrastive focus, as in (64)B above, and focus associated with a focus-sensitive particle *only*, involve the key component of contrast.

(65) A: *Did Kusturica's latest movie disappoint his sister?*

B: Ne. Kusturicin₁ najnoviji film je razočarao *samo njega*₁ (a ne njegovu sestru).

no. Kusturica's latest movie is disappointed only him_{STR.PRN.} and not his sister

'No. Kusturica₁'s latest movie disappointed only him₁ (*not his sister*).'

That focus interacts with binding has been noted in passing by a number of authors, including Despić (2011), but it was generally put aside without explanation. In fact, the standard wisdom regarding pronouns and focus has nothing to do with coreference – it is simply that strong forms in general are used when a pronoun is focalized.²⁶ The issue of coreferential focused pronouns, on the other hand, was only discussed in cases where Condition B is not at issue (i.e. in cross-clausal bound variable contexts discussed by Montalbetti 1984, see Chapter 3 for discussion of cross-clausal cases). The interaction of focus with coreferential readings of pronouns discussed here is a separate issue – I showed above that strong pronouns need not be focused for the coreferential reading to be licensed.

This is also supported by Japanese, where the standard wisdom about focus and pronouns does not apply in the first place – Japanese does not belong to the group of Spanish/SC-style *pro*-drop languages where strong pronouns in general are typically used when focalized. Nonetheless, a pronoun coreferential with a possessor is ungrammatical in Japanese, as shown in (66) below

²⁶ As Cardinaletti & Starke (1999) point out, strong pronouns actually do not necessarily need to be focalized. For example, unstressed strong pronouns can appear in prosodically neutral ostension and coordination.

(from Kang 2014: 106). Importantly, the example in (66) in fact becomes acceptable if the pronoun bears contrastive focus, on a par with the SC data discussed above (cf. (64) and (66))

(66) *Kurosawa₁-no saisin-no eega-wa hontoo-ni kare₁-o rakutans-ase-ta.

Kurosawa_{GEN.} latest_{GEN.} movie_{TOP.} really him_{ACC.} disappointed_{CAUS.PST.}

[intended] ‘Kurosawa₁’s latest movie really disappointed him₁.’

2.4.2 Coreferential clitics

Turning now to clitics, let us consider how coreferential clitics are licensed. As indicated in (54)-(56) above, which are repeated here as (67)-(69), clitics can only be coreferential with the possessor antecedent if the possessor antecedent functions as a discourse topic. This is the case only in the example given in (69)B below.²⁷

(67) A: *Who did Kusturica’s latest movie disappoint?*

B: *Kusturicin₁ najnoviji film **ga**₁ je razočarao.

²⁷ Note that some speakers find (69)B somewhat degraded. However, this has nothing to do with coreference; rather, the prosodic heaviness of the NP preceding the clitic is at issue here. Namely, due to the length of the preceding NP, the NP is most naturally followed by a pause and that may affect the acceptability of the example due to the clitic placement given that, as Bošković (2001) notes, (pronominal) clitics in SC, which are enclitics, cannot follow an intonational phrase boundary. The suggestion is supported by the fact that if we replace *Kusturicin najnoviji film* with an NP that is less prominent phonologically (i.e. shorter and/or destressed), the acceptability of the example improves. Compare in this respect (i) (= (69)B) and (ii) below, with the NP preceding the clitic being shorter in (ii):

(i) Kusturicin najnoviji film ga je razočarao.

Kusturica’s latest movie him_{CL.} is disappointed

‘Kusturica’s latest movie disappointed him.’

(ii) Lukin novi film ga je razočarao.

Luka’s latest movie him_{CL.} is disappointed

‘Luka’s latest movie disappointed him.’

Kusturica's latest movie him_{CL} is disappointed

[intended] 'Kusturica₁'s latest movie disappointed him₁.'

(68) A: *Whose latest movie disappointed whom?*

B: *Kusturicin₁ najnoviji film **ga**₁ je razočarao.

Kusturica's latest movie him_{CL} is disappointed

'Kusturica₁'s latest movie disappointed him₁.'

(69) A: *What about Kusturica's latest movie? I know directors usually like their latest movies. Is it the case with Kusturica and his latest movie?*

B: Kusturicin₁ najnoviji film **ga**₁ je razočarao.

Kusturica's latest movie him_{CL} is disappointed

'Kusturica₁'s latest movie disappointed him₁.'

Note that a clitic is also ruled out in cases like (67)B where the discourse topic is the entire NP, not just the antecedent *Kusturica*. However, the clitic would actually be ruled out in (67)B even if it is not coreferential with the possessor - as prosodically weak elements that cannot bear stress, clitics are incompatible with new information focus (the latter being identified through stress). In SC, the part of the sentence representing neutral new information focus obligatorily surfaces sentence-finally, following the presupposed material, and bearing the main sentential stress (for much relevant discussion, see Stjepanović 1999, 2003). This clashes with two key properties of clitics – as a second position element, the clitic cannot appear sentence-finally here and, as a prosodically weak element, it cannot be contrastively focused either, as illustrated in (70). As shown in (64) above, a strong pronoun is required in contexts like the one given in (70), where a clitic is ruled out independently of coreference.

(70) A: *Did Kusturica's latest movie disappoint his sister?*

B: *Ne. Kusturicin₁ najnoviji film GA_{1/2} je razočarao.

no. Kusturica's latest movie him_{CL} is disappointed

[intended] 'Kusturica₁'s latest movie disappointed him₁ (not his sister).'

In sum, the above data demonstrate that the availability of coreferential readings of pronouns in examples like Despić's (44) in fact depends on the topic or focus interpretation of the antecedent (and in some cases the pronoun). I showed that coreferential strong pronouns are licensed by antecedents that function as new information focus, while coreferential clitics are licensed by antecedents that function as discourse topics. In addition, if no appropriate antecedent is available for the former, coreference is possible provided that the pronoun is contrastively focused.²⁸ Thus, depending on these discourse conditions, coreferential pronouns can in fact be allowed in (44), which is crucially unexpected if (44) were a Condition B effect (as will be shown in Section 2.5, true Condition B violations cannot be rescued in the discussed ways).

2.4.3 Weak and strong pronouns in English

I now turn to English. I will show in this section that pronouns in English are also sensitive to discourse properties of their antecedents, in fact, in the manner discussed above for SC pronouns. I will show below that pronouns coreferential with a possessor in examples like (45) above, repeated here as (71), are in fact not always grammatical although Condition B is not at issue here (recall that the possessor in such cases does not c-command the pronoun (Despić 2011, Kayne 1994)). This will provide further support for the two main claims made here: namely, that the (un)availability of coreferential pronouns in cases like (44)-(45) above is not a reliable test for

²⁸ See Chapter 3 for another way of licensing coreferential strong pronouns, where focus actually also matters.

probing structure (i.e., c-command relations) and, by analogy, that SC (44) is not a Condition B violation since the restriction on coreference in such contexts is governed not by structural c-command but by discourse considerations.

(71) Kusturica's₁ latest movie really disappointed *him*₁.

Consider in this respect the contrast given in (72)-(73): as indicated by the context question in (72)A, the antecedent of the pronoun in (72)B is a topic and the relevant interpretation is allowed. If the antecedent is new information focus, as in (73)B, the coreferential pronoun is disallowed unless the pronoun bears stress, as in (73)B'.

(72) A: *What about John? Who disappointed him?*

B: John₁'s friends disappointed *him*₁.

(73) A: *Whose friends disappointed who?*

B: *John₁'s friends disappointed *him*₁.

B': John₁'s friends disappointed **HIM**₁.

What we see here is a parallelism between English and SC: unstressed pronouns in English pattern with clitics in SC in that they can only be coreferential with topic antecedents (cf. (72)B-(73)B). Furthermore, stressed pronouns in English behave like SC strong pronouns since they require new information focus antecedents (note crucially that if the pronoun in (72)B is stressed, it must be disjoint from the topic antecedent). Furthermore, note that (73)B' is unacceptable under the intended interpretation in a 'What happened?' context where the entire sentence, rather than just the antecedent, represents new information. Thus, stressed pronouns in English pattern with SC strong pronouns in that they require narrow new information focus antecedents as well (cf. (55)-(60) from SC).

Importantly, the observed parallelism indicates that English also has a two-way (i.e. weak/strong) split in its pronominal system, at least in object positions. Using the established antecedent constraints for coreferential pronouns in SC as a diagnostic, I showed that unstressed pronouns in English behave like clitics, while pronouns bearing stress show properties of non-clitic or strong pronouns.²⁹

That the former should indeed be analyzed as clitics has also been independently argued for by Bošković (1997, 2004). Bošković (1997) observes that *wager*-class verbs cannot exceptionally Case-mark lexical NPs (as also noted by Postal 1974) unless they theta-mark them or unless the NPs in question are X^0 s, i.e. clitics. Given the data in (74)-(78), he concludes that if the pronouns in (74)-(75) are analyzed as clitics, then the ill-formed (76)-(77) could be captured in the same manner as the parallel example from French (78), which illustrates a well-known observation that clitics cannot be coordinated. Note that Bošković also observes that the pronouns in (74)-(75) must be unstressed, which further supports his clitic analysis.³⁰

(74) Mary alleged *him* to have kissed Jane.

(75) Mary never alleged *him* to have kissed Jane.

(76) *Mary alleged *him* and *her* to have kissed Jane.

²⁹ That the same form can behave like a clitic or a non-clitic depending on whether or not it is stressed has been shown for other languages as well; for example, this is the case with Czech 3rd person singular feminine clitic *ji* (see Franks and King 2000: 99) or the conditional mood of auxiliary clitic form *biti* in SC (see Franks and King 2000: 23).

³⁰ English object pronoun *it* is actually unambiguously a clitic – thus, it must be verb-adjacent and cannot be contrastively focused at all.

(i) Mary turned *it* down.

(ii) *Mary turned down *it*.

(iii) *Mary turned down *IT*.

(77) *Mary never alleged *him* and *her* to be crazy.

(78) *Je *le* et *la* rencontre tous les jours.

I him and her meet all the days

[intended] ‘I meet him and her every day.’ (Bošković 1997: 58-59)

Bošković (2004) provides additional evidence from Quantifier Float (QF) which indicates that English has clitic pronouns. Consider (79), from Bošković (2004: 706): given his generalization that quantifiers cannot be floated in theta positions, the ill-formedness of (79) follows because *all* is floated in a theta position (note that Bošković shows that, as also argued by a number of authors (e.g. Authier 1991, Johnson 1991, Ura 1993, Koizumi 1995, Bošković 2002, 1997, Lasnik 1999, a.o.), English has overt object shift – which means that *the students* in (79) does move).

(79) *Mary hates the students all.

However, the grammaticality of (80) (from Bošković 2004: 707), with an object pronoun, is then surprising. Bošković suggests that the contrast in (79)-(80) immediately follows if English object pronouns move higher than object NPs, undergoing an additional step of movement, i.e. cliticization. Then, in contrast to (79), the quantifier in (80) is not floated in the theta position but in the object shift position, hence the sentence is grammatical.³¹

(80) Mary hates *them* all.

³¹ Since cliticization involves head movement, the pronoun cannot carry a modifier, hence *all* has to be stranded in the object shift position, prior to the movement of the clitic.

All this gets additional support by examples given in (81)-(82), which show that contrastively focused and coordinated object pronouns (hence, unambiguously non-clitics) cannot float a quantifier:

(81) *Mary hates **THEM** all.

(82) *Mary hates *you*, *him* and *her* all. (Bošković 2004: 708)

Given the above observation that unstressed pronouns in English can only be coreferential with topic antecedents, a question arises whether coordinated pronouns would allow coreference with topic antecedents. As shown in (83), the coreference in such cases is in fact allowed. The same holds for coordinated pronouns in SC, as in (84) (which involves non-clitic form).

(83) A: *What about John? Who hates him?*

B: John₁'s friends hate [*him*₁ and his family].

(84) A: *What about Kusturica? Who hates him?*

B: Kusturicini₁ prijatelji mrze [*njega*₁ i njegovu porodicu].

Kusturica's friends hate him_{STR.PRN.} and his family

'Kusturica₁'s friends hate him₁ and his family.'

This suggests that the discourse requirements on different types of pronouns discussed above hold only in cases where both forms are in principle available; if no such alternation exists even in principle (as in coordination), strong forms allow coreference with topic antecedents. However, I am putting such cases (and this rather interesting issue) aside here (see Chapter 3 for a detailed discussion) since our goal right now is to discuss discourse conditions on coreferential pronouns when *both* forms are in principle possible.

2.4.4 Stress without context

The preceding discussion raises the question why the very interesting binding contrast between SC and English reported in Despić holds in the first place. I would like to suggest that the difference can be explained in terms of stress – the main idea being that there is always an implied context for each utterance, with stress placement crucially aiding the interpretation when no explicit context is provided. Consider in this regard a modified version of (44)-(45) above, given in (85) (I am focusing on SC strong forms here):³²

(85) a. *Kusturicin₁ papagaj je ujeo *njega*₁.

Kusturica's parrot is bit him_{STR.PRN}.

'Kusturica₁'s parrot bit him₁.'

b. Kusturica₁'s parrot bit *him*₁.

I will argue that the way stress assignment works in SC and English respectively is crucial for the interpretation of pronouns in this case. In SC, main sentential stress (assigned by the NSR) always falls on the most deeply embedded element which is consequently interpreted as new information focus (SC being a free word order language, there are independently available movement operations that can affect elements which do not bear new information focus, leaving elements bearing new information focus in the sentence final position (see Stjepanović 1999)).³³ Thus, given

³² The reason I modified Despić's examples in (44)-(45) is because they are very odd pragmatically. Namely, the choice of the verb *to disappoint* creates an additional presupposition which makes the intended coreference pragmatically implausible (unless the context is further specified).

³³ This is somewhat of an oversimplification. Halupka Rešetar (2011) argues that we should distinguish between two types of new information focus in SC: the sentence-final new information focus and the non-final new information focus. She claims that the element representing new information focus (and bearing the main stress) does not have to be sentence-final, though it most frequently is. The author conducted a survey among native

its position, the pronoun in (85)a receives the main stress and is interpreted as new information focus, which in turn leads the speaker to build a context forcing such interpretation (in this case, *Who did Kusturica's parrot bite?*), hence the ungrammaticality of the example (recall that both clitics and strong pronouns are disallowed in such contexts if coreferential with the possessor).^{34,35}

speakers and found that both (ia) and (ib) are acceptable answers to the given context question (capital letters in this case mark the location of the main stress) (Halupka Rešetar 2011: 195):

Ko je kupio knjigu?/ Who bought a book?

(i) a. Knjigu je kupila MARIJA.

book is bought Marija

b. MARIJA je kupila knjigu.

Marija is bought book

‘Marija bought a book.’

However, though I agree that both (ia) and (ib) are acceptable, it does not seem that we are dealing with the same type of focus here. As the author herself also notices, importantly, non-final focus is more prominent phonologically than final focus (it in fact carries emphatic stress, which is argued to be assigned differently from the default stress assignment mechanism (see Zubizarreta 1998, a.o.)) and the latter type of focus is the most neutral one in SC. That being said, my intuition is that non-final focus as in (ib) is at the very least less neutral than final new information focus, and most likely contrastive, which would also explain the difference in stress. This in fact seems to be what led Stjepanović (1999) to treat the non-final focus as in (ib) as identificational focus (in the sense of Kiss 1998) rather than (neutral) new information focus.

³⁴ The issue does not arise if the pronoun is not in sentence final position. This is shown (i). In (i), the pronoun does not receive the main sentential stress and the coreference is expectedly allowed (note that while complex possessors can appear in genitive case following the noun, simple pronominal possessors must precede the noun, agreeing with it in case and phi-features, so it is not possible to place the possessor sentence-finally in (i) by marking it with genitive).

(i) Kusturicin₁ najnoviji film je zaista razočarao *njegovog*₁ prijatelja.

Kusturica's latest movie is really disappointed his friend

‘Kusturica₁'s latest movie really disappointed his₁ friend.’

³⁵ Nothing would change if (85)a is used in a ‘What happened?’ context. As noted above, strong coreferential pronouns are disallowed in such contexts.

However, English is different from SC in that the output of the NSR does not always align with focus structure (Zubizaretta 1998). While in SC the main sentential stress falls on the most deeply embedded element (i.e. the pronoun in (85)a, this is not always the case in English.³⁶ In fact, certain types of phonologically realized constituents may be invisible to the NSR in English (see Bresnan 1972, Zubizaretta 1998). This is the case with constituents with reduced or null stress –e.g. functional categories such as determiners, auxiliaries, certain prepositions, defocalized and anaphoric constituents. Thus, without a specific context, the main sentential stress in (85)b falls on the verb rather than the pronoun (Zubizaretta 1998).³⁷ Consequently, the reported difference

³⁶ This is responsible for other important differences between SC and English – for instance, they differ regarding how a question like ‘*Who left?*’, where the subject represents neutral new information focus, is answered (see Stjepanović 1999, 2003). This is shown in (i)–(ii) (small capital letters indicate main sentential stress):

(i) A: *Who left?*

B: JOHN left.

(ii) A: *Who left?*

B: Otišao je JOVAN.

left is Jovan

B': #JOVAN je otišao.

Jovan is left

'Jovan left.'

In English, the subject receives the main stress and is interpreted as a neutral new information focus (iB). This is, however, not the case in SC. In SC, the answer has a completely neutral focus reading only if the relevant element is in the sentence final position, receiving the main stress, as in (iiB).

³⁷ In fact, English pronouns are such that if they bear main stress in cases like (85)b, they give rise to a contrastive focus meaning. Zubizaretta (1998) illustrates this with the example given in (i): in (ib), with the nuclear stress on the pronoun, the implication is that John kissed Mary rather than some other individual present in the context. She takes the contrast in (i) to indicate that anaphoric phrases are metrically invisible for the NSR in English.

(i) *Mary walked in.*

a. John kissed her.

b. John kissed hér (and not Martha).

with respect to coreference in (85) arises because new information focus interpretation of the pronoun is strongly preferred in (85)a and unavailable in (85)b without a specific context. Note also that if the pronoun in (85)b were stressed, as in SC (85)a, the coreferential reading would be unavailable, on a par with SC (85)a.

The above explanation of the binding contrast between English and SC reported in Despić (2011, 2013) receives further support from Italian, which behaves like SC regarding the NSR (see Cinque 1993, Zubizaretta 1998). Unlike English, all phonologically realized material is visible to the NSR in Italian, and the main sentential stress falls on the rightmost element (Zubizaretta 1998). Thus, in (86) below the pronoun receives the main stress by virtue of being sentence-final and is interpreted as new information focus, on a par with the SC example in (85)a above.³⁸ As predicted, the coreference in (86) is also banned (R. Petrosino, p.c.; note that, as in SC and English, the intended interpretation of the strong pronoun is also ruled out in a broad/*What happened?* focus context).

(86) *Il pappagallo di Gianni_i ha morso ***lui***_i.

the parrot of John's has bit him_{STR.PRN.}

Zubizaretta (fn. 13) also notes that certain time adverbials behave in the same way. Thus *today* is 'deaccented' (i.e. metrically invisible) when placed sentence-finally in (ii) (she suggests that such adverbs might be anaphoric in nature and hence metrically invisible). Similarly to the pronoun in (ib), these adverbs are interpreted contrastively when they bear main prominence, as in (iii), where they are assigned stress by the emphatic/contrastive stress rule, rather than the NSR (Zubizaretta 1998: 172).

(ii) I booked his *dád* today.

(iii) I am leaving ***TODAY*** (not tomorrow).

³⁸ Note that destressing the pronoun in (86) would actually lead to using a clitic form, which also has different syntactic placement. Contrary to SC and Italian, in English clitic and non-clitic pronouns have the same form, as shown above.

[intended] ‘John₁’s parrot bit him₁.’

Notice also that coreference with the possessor here is disallowed although Italian is a DP language (recall that under Despić’s analysis, the possibility of coreference with possessor antecedents crucially depends on the categorial status of the nominal phrase containing it). Thus, (86) cannot be a binding violation given that there is no c-command between the coreferential elements.

To summarize the discussion in this chapter so far, I have argued above that the coreferential readings of pronouns in examples like (44)-(45), repeated here as (87) and (88), crucially depend on the discourse properties of the antecedent. In particular, I showed that coreference is in principle possible even when under the analysis proposed in Despić (2011, 2013) the pronoun is c-commanded by a local antecedent, as in (87), and that it can be disallowed when the antecedent does not c-command the pronoun under Despić’s analysis, as in (88). I have shown that SC and English pattern alike with respect to coreferential pronouns in configurations like (87)-(88) and that the initial contrast reported in Despić disappears once the relevant contextual factors are controlled for.

(87) a. *Kusturicin₁ najnoviji film je zaista razočarao *njega*₁.

Kusturica's latest movie is really disappointed him_{STR.PRN}.

b. *Kusturicin₁ najnoviji film] *ga*₁ je zaista razočarao.

Kusturica's latest movie him_{CL} is really disappointed

[intended] ‘Kusturica₁’s latest movie really disappointed him₁.’

(88) Kusturica's₁ latest movie really disappointed *him*₁.

2.5 Apparent and real Condition B

The above observations on discourse licensing of coreferential readings of pronouns have important implications for Despić's analysis of (44), repeated here as (89). Despić contends that (89) is a Condition B violation – both the strong and the clitic pronoun disallow coreference with the possessor which, by assumption, c-commands out of its phrase, hence the violation. However, I showed that the coreference in (89) can in fact be allowed, provided that certain discourse conditions on coreferential readings of pronouns are met.

(89) [_{NP} Kusturicin₁ [najnoviji [film]] (**ga*₁) je zaista razočarao (**njega*₁).

Kusturica's latest movie him_{CL} is really disappointed him_{STR.PRN}

[intended] 'Kusturica₁'s latest movie really disappointed him₁.'

Consider now examples like (90), a standard Condition B violation, where the antecedent is not a possessor and hence uncontroversially c-commands the pronoun.

(90) Kusturica₁ (**ga*₁) je razočarao (**njega*₁).

Kusturica him_{CL} is disappointed him_{STR.PRN}.

[intended] 'Kusturica disappointed himself.'

Let us consider whether satisfying the above discourse conditions would make the strong pronoun in (90) acceptable under the relevant interpretation. In (91), the antecedent is new information focus. Importantly, contrary to (55) above, this does not suffice to license a coreferential strong pronoun.

(91) A: *Who disappointed who?*

B: *Kusturica₁ je razočarao *njega*₁. *STR.PRN.

Kusturica is disappointed him_{STR.PRN}.

[intended] 'Kusturica disappointed himself.'

Furthermore, if the antecedent is a topic, as in (92), we would expect that contrastive focus would facilitate the intended reading, on a par with (64) (if both involve the same kind of violation, Condition B). However, the coreferential strong form is still disallowed.

(92) A: *What about Kusturica? Did he disappoint his sister?*

B: *Ne. Kusturica₁ je razočarao **njega₁/NJEGA₁**. *STR.PRN.

no. Kusturica is disappointed him_{STR.PRN.} /him_{FOC.}

[intended] 'No. Kusturica disappointed himself.'

Similarly, a coreferential clitic in (90) is ruled out without exception, even if the antecedent is a discourse topic, as in (93), which crucially differs from (56) above.

(93) A: *What about Kusturica? I know that directors usually admire themselves and their own work – is he like that?*

B: *Ne. Kusturica₁ **ga₁** je razočarao. *CL.

no. Kusturica him_{CL.} is disappointed

[intended] 'No. Kusturica disappointed himself.'

Thus, there is a clear-cut contrast with respect to coreferential pronouns in configurations like (89), where the relevant interpretation can in fact be allowed under the discourse conditions discussed above, and (90), where coreference is invariably disallowed. Given that (90) uncontroversially involves a Condition B violation, the different behavior of (89)-(90) in the relevant respects then provides evidence that (89) should not be treated as a Condition B effect – as shown above, clear Condition B violations cannot be rescued by manipulating the relevant discourse factors. As I will show in the next chapter, the same discourse conditions on strong/clitic pronouns observed in

configurations like (89) also hold in cases of intersentential anaphora, thus further supporting my claim that (89) is not a Condition B violation.

Finally, consider the data in (94) (G. Cinque, p.c.). (94)a and (94)b differ only in terms of antecedent type (possessor vs. non-possessor), just like (89)-(90). The coreference between the possessor and the clitic pronoun is acceptable in (94)a, but not in (94)b, where the antecedent is not a possessor. Thus, unlike the possessor example (94)a, (94)b is a Condition B violation.

(94) a. Njegov₁ otac *ga*₁ smatra glupim. ✓CL.

his father him_{CL} considers stupid

‘His₁ father considers him₁ stupid.’

b. *On₁ *ga*₁ smatra glupim. *CL.

he him_{CL} considers stupid

[intended] ‘He₁ considers him₁ stupid.’

2.6 Implications for the nominal structure of SC

Before concluding the chapter, I briefly return to the implications of the current discussion for nominal structure. The discussion above indicates that in configurations like (88) below, the possessor does not in fact c-command out of the TNP in SC. If we adopt Kayne’s (1994) proposal and assume that all specifiers are adjuncts, there would then need to be an additional projection above the NP in (88) that would prevent the possessor from c-commanding out, say a PossP (recall from fn. 18 that Bošković’s (2008, 2012) NP/DP approach allows for projections lower than DP, but higher than NP, in languages without articles).

(88) [_{TNP} POSS [_{NP} N]]

Kayne (1994) motivates his proposal that specifiers are adjuncts based on examples like (89) below. He argues that a bound variable interpretation of the pronoun in (89) is allowed because the quantifier phrase *every girl*, which is embedded in a PossP that is dominated by a DP, moves to a position from which it can bind the variable, namely SpecDP (see fn. 16 for more details).

(89) Every girl₁'s father thinks that she₁ is a genius.

Based on (89), Kayne concludes that the possessor can c-command out from the SpecDP position (the term 'specifier' is used here for convenience only; again, for Kayne, all specifiers are adjuncts, hence they c-command out of the phrase where they are located). On the other hand, Ernst (2001) proposes that *every girl* in examples like (89) in fact undergoes QR and raises out of the subject DP, hence c-commanding the pronoun. Ernst's approach also correctly predicts that the QP *every girl* can bind the pronoun even when it is more deeply embedded, as is the case in (90) below. Importantly, note that Kayne's approach cannot account for examples like (90).

(90) The father of every girl₁ thinks she₁ is a genius.

We can therefore assume that, in contrast to Kayne's (1994) proposal, specifiers are not adjuncts and hence they do not c-command out of the phrase where they are located. This would in turn imply that the possessor in configurations like (88) above is in fact not an adjunct but a specifier and therefore does not c-command out of the TNP (cf. Despić 2011, 2013). Additionally, under this approach, possessors in English no longer need to be generated in SpecPossP (to prevent them from binding anaphors outside of their TNP in examples like **John₁'s mother loves himself₁*, see fn. 16) since by assumption specifiers do not c-command out of their phrase. Thus, such approach would allow us to dispense with a PossP both in English and SC. The relevant structures can then be as shown in (48) above.

2.7 Conclusion

To summarize the discussion in this chapter, the grammaticality of the pronoun-coreferential-with-possessor constructions was shown in this chapter to depend on the discourse properties of the possessor, rather than the presence or absence of a c-command relation between the coreferential elements. In other words, it was argued that Condition B is not the responsible factor in the relevant cases involving possessor binding. It was shown that coreferential weak pronouns are licensed by topic antecedents, while a strong coreferential pronoun is licensed if its antecedent bears new information focus or if the pronoun is contrastively focused. This was shown to hold for both SC and English, which led to the conclusion that English also has a strong/clitic pronoun distinction.

In the next chapter, I will demonstrate that the same discourse constraints on coreferential pronouns in SC (i.e. the discourse constraints established in this chapter) also hold in cases of intersentential anaphora – that is, in environments where the coreferential elements are in separate sentences, hence Condition B out. This will further support my claim that examples like (89) are in fact not Condition B violations. More importantly, the following discussion will lead us to establish additional new discourse conditions on the licensing of coreferential readings of pronouns.

CHAPTER 3

INTERSENTENTIAL ANAPHORA

3.1 Introduction

In Chapter 2, I proposed a new way of looking at the distribution of coreferential clitic and strong pronouns in SC. It was shown that, in the relevant contexts, the (un)availability of coreferential interpretation of the pronouns correlates with specific discourse properties of their antecedents, rather than the presence or absence of a c-command relation between the co-referring elements, as previously argued. More precisely, it was demonstrated that coreferential strong pronouns are licensed if the antecedent represents (narrow) new information focus, while clitic pronouns show a strong preference for antecedents that are discourse topics. This led me to conclude that the grammaticality of the relevant pronoun-coreferential-with-possessor constructions discussed Chapter 2 is in fact independent of Condition B.

In this chapter, I will corroborate my claim that the availability of coreferential interpretation for different pronoun types crucially depends on the discourse status of their antecedents by showing that the same antecedent restrictions as those discussed in Chapter 2 are observed in cases involving intersentential anaphora – that is, it will be demonstrated that the coreferential possibilities for pronouns whose antecedents are located in a separate sentence are likewise subject to information structure constraints identical to those observed in the contexts discussed in the previous chapter. Thus, I will show that even in the clear absence of c-command, SC strong pronouns can only be coreferential with antecedents that are new information focus (unless the pronoun itself is contrastively focused), while weak/clitic pronouns are most readily

interpreted as coreferential with antecedents that have the status of discourse topics. It will be demonstrated that the behavior of strong and weak/clitic pronouns in SC in this respect can be unified with the behavior of demonstrative and personal pronouns in languages like German. Finally, I will also introduce a third way of licensing coreferential strong pronouns (which I will show can be extended to demonstrative pronouns in German) – namely, by placing focus on elements other than the antecedent or the pronoun itself.

The chapter is structured as follows. In Section 3.2, I will show that the status of the antecedent in terms of discourse topicality crucially constrains the interpretive possibilities for strong pronouns in SC. More specifically, it will be demonstrated that strong pronouns cannot be coreferential with antecedents that function as discourse/sentence topics; instead, they can only refer back to antecedents that represent new information focus. In that regard, they function as topic-shift devices, taking focused antecedents and turning them into new topics. By contrast, I will show that weak/clitic pronouns are most readily interpreted as coreferential with topic antecedents and thus serve to mark topic-continuity in discourse (note that the strong/weak pronoun distinction discussed with respect to SC in Section 3.2 goes beyond the overt/null pronoun distinction that the literature has generally focused on). In Section 3.2.1, I will show that the split between strong and weak pronouns in this respect parallels the use of demonstrative and personal pronouns in German. In Section 3.3, I will discuss the relevance of discourse conditions on different types of pronouns established here for issues relating to pronominal competition. More precisely, it will be suggested that the competition between weak and strong pronouns in the relevant cases can be thought of in terms of properties of antecedents, rather than the structural properties of pronouns themselves. Finally, in Section 3.4, I will discuss another way in which focus can license the coreferential interpretation of strong pronouns – namely, I will show that the

presence of focus on elements other than the antecedent or the pronoun itself can license the relevant interpretation as well.

3.2 Antitopicality of strong pronouns

In Chapter 2, I argued that SC strong pronouns require new information focus antecedents and cannot be coreferential with discourse topics or discourse-given referents unless they are contrastively focused; clitic pronouns, on the other hand, are most readily interpreted as coreferential with topic antecedents. Importantly, the same pattern is observed at the level of discourse: as shown in (91)-(92), the strong form must be disjoint from the discourse topic, even though the two are clearly not in a c-command relationship here; they are in fact not in the same sentence at all. Expectedly, only weak forms (*pro* in (91) and a clitic in (92)) are felicitous here.

(91) A: *What about John_I?*

B: Marija je čula da se ***pro*_I** / ??***on*_I** preselio u Minhen.

Marija is heard that *se*_{REF.CL.} ***pro*** / *he*_{STR.PRN.} moved in Munich.

‘Marija heard that *he*_I moved to Munich.’

(92) A: *What about John_I?*

B: Marija je čula da *pro* su ***ga*_I** / ??***njega*_I** juče uhapsili.

Marija is heard that *pro* are *him*_{CL} / *him*_{STR.PRN.} yesterday arrested

‘Marija heard that they arrested *him*_I yesterday.’

Examples in (91)-(92) show that strong pronouns in SC quite generally show a restriction on the types of antecedents that they can take – in particular, they are banned from co-referring with sentence/discourse topics.

This is even more prominent in cases where more than one potential antecedent is available. Consider the example in (93) below, where there are two potential antecedents for the pronoun – *Jovan*, which constitutes the discourse topic, and *Milan*, which represents new information focus. The strong pronoun in (93) cannot be coreferential with the antecedent that is the current aboutness topic; instead, coreference with the antecedent that represents new information focus is strongly preferred.

(93) A: *Who did Jovan want to go jogging with?*

B: Jovan₁ je želio da trči sa [Milanom₂]_{FOC}, ali je *on*_{2/*1} / *pro*_{1/??2} bio bolestan.

Jovan is wanted that run with Milan but is he_{STR.PR.N.} / *pro* been sick

‘Jovan₁ wanted to go jogging with Milan₂ but he₂ was sick.’

Furthermore, the requirement that strong pronouns be disjoint from topic antecedents obtains even when the antecedent that is the topic is strongly preferred by the background context. Observe in this regard the example in (94) below, which shows that the topic, *Marija*, cannot be the antecedent of the strong pronoun; instead, the pronoun can only be coreferential with the antecedent that receives new information focus, which is *Maša* in this case.³⁹ By contrast, the null pronoun is most naturally interpreted as coreferential with the topic, as shown in (94)B’.

³⁹ Recall that new information focus is licensed prosodically in SC, by stress assigned by the Nuclear Stress Rule (NSR) in the sense of Chomsky and Halle (1991), Cinque (1993), and Zubizarreta (1998), among others (see Stjepanović 1999, 2003 for more details on focus licensing in SC). If the whole sentence is new information focus, as in (i) below, focus is perceived as neutral if the sentence has a canonical SVO order, in which case the main stress falls on the most embedded element of the sentence. If part of a sentence is new information focus, as in (ii) from Stjepanović (1999:76), the focused element, whatever it is, must be in the sentence final position, following the presupposed material and bearing the main sentential stress (the order of presupposed material preceding it is free, as illustrated in (iia,b)):

(94) A: *Every weekend Marija invites a colleague from work to her place. Do you know who she invited for dinner today?*

B: Danas je [Marija₁]_{TOP} ugostila [Mašu₂]_{FOC}. *Ona*_{2/*1} je napravila veliki nered
 today is Marija invited Maša. She_{STR.PRN} is made big mess
 praveći salatu!
 making salad

(i) *What happened?*

[Milan je oženio Mariju]_{FOC}.
 Milan is married Marija.
 ‘Milan married Marija.’

(ii) *Who did the cat catch?*

a. Mačka je uhvatila [miša]_{FOC}. *neutral new information focus*
 cat is caught mouse
 b. Uhvatila je mačka [miša]_{FOC}. *neutral new information focus*
 caught is cat mouse
 ‘The cat caught a mouse.’

On the other hand, as Stjepanović (1999) points out, contrastive focus in SC is licensed both positionally and prosodically. Sentences containing contrastive focus, which is prosodically stronger than simple new information focus, are most natural if the focused element is in a preverbal position, as in (iii) – (iiia,b) are much better than (iiic) with focused element in postverbal position:

(iii) Speaker A: *Milan kissed Jovana.*

Speaker B: *You’re wrong.*

a. [Mariju]_{CONT.FOC} je Milan poljubio.
 Marija is Milan kissed
 ‘Milan kissed Marija.’
 b. Milan je [Mariju]_{CONT.FOC} poljubio.
 Milan is Marija kissed
 c.? Milan je poljubio [Mariju]_{CONT.FOC}.
 Milan is kissed Marija
 ‘Milan kissed Marija (not Jovana).’

B': Danas je [Marija₁]_{TOP}, ugostila [Mašu₂]_{FOC.}. Napravila *pro*_{1/??2} je veliki nered

today is Marija invited Maša. made *pro* is big mess

praveći salatu.

making salad

'Today, Marija₁ invited Maša₂. She₂ made a big mess making a salad!'

If the antecedent of the strong pronoun in (94) is moved to a position where it can no longer receive main sentential stress (by the nuclear stress rule) and is interpreted as given (the so-called *defocalized phrase scrambling* (Stjepanović 1999)), the antecedent possibilities for the strong pronoun flip: the pronoun can only refer to *Marija*, which is now interpreted as new information focus by virtue of appearing in a sentence final position rather than in its canonical subject position (95).

Note that such interpretation is unavailable if a *pro* is used: given that weak pronouns are most naturally interpreted as coreferential with topics, *pro* in (95) would be interpreted as coreferential with the discourse topic *Maša*, not with *Marija*.

(95) A: *Every weekend Maša gets invited for dinner by a colleague from work. Do you know who is hosting her today?*

B: Danas je [Mašu₂] ugostila [Marija₁]_{FOC.}. *Ona*_{1/*2} je napravila veliki nered

today is Maša_{ACC.} invited Marija_{NOM.}. She_{STR.PRN.} is made big mess

praveći salatu!

making salad

'Today, Marija₁ invited Maša₂. She₁ made a big mess making a salad!'

Defocalized phrase scrambling therefore provides direct evidence that SC strong pronouns require new information focus antecedents, as demonstrated by the contrast in (94)-(95). In that regard, they function as topic-shift devices, taking focused antecedents and turning them into new topics.^{40,41}

Importantly, note also that cases like (95) above provide evidence that the grammatical role of the antecedent is not crucial here: while the strong pronoun in (93)-(94) cannot be coreferential

⁴⁰ It is worth noting here that there are languages where the topic-shift function is marked morphologically, in a different way from SC, more precisely, where morphological alternation/marking of topic-shift goes beyond pronouns, which is the case in SC. For example, Amharic has topic-shift affixes which seem to be able to attach to any word class (Gasser 1983: 114-116). In the Papuan language Chuave, on the other hand, topic-shift is marked by verbal affixes (Givón 1983: 24). The Ancash dialect of Quechua, spoken in Peru, also marks topic-shift by verbal morphology (Haiman and Munro 1983: 5). Although topic-shift is usually marked by affixes (in particular on the verb), in languages like Pima, the topic-shift marker is an independent morpheme that need not be adjacent to the verb (Haiman and Munro 1983). I leave the investigation of topic-shift in such cases for future work.

⁴¹ Given the proposal that strong pronouns take focused antecedents and turn them into new topics, it is predicted then that the next pronoun in a sequel that is used to refer back to the newly established topic should be a weak pronoun (given that the referent is now established as a topic). The prediction is borne out, as shown in the continuation of the example (95)B above, given in (i), where only a *pro* can be used to refer back to the new topic in this context, namely *Marija* (cf. (ia)-(ib)).

(i) a. Danas je [Mašu₂] ugostila [Marija₁]_{FOC.} **Ona**_{1/*2} je napravila veliki nered praveći salatu!

today is Maša_{ACC.} invited Marija_{NOM.} She_{STR.PRN.} is made big mess making salad

Sve **pro**₁ je prosula po podu!

everything *pro* is spilled on floor

b. Danas je [Mašu₂] ugostila [Marija₁]_{FOC.} **Ona**_{1/*2} je napravila veliki nered praveći salatu!

today is Maša_{ACC.} invited Marija_{NOM.} She_{STR.PRN.} is made big mess making salad.

***Ona**₁ je sve prosula po podu!

she_{STR.PRN.} is everything spilled on floor

‘Today Marija invited Maša. She made a big mess making a salad! She spilled everything on the floor!’

with the subject antecedent, this is not the case in (95). (95) shows that strong pronouns in fact allow coreference with subject antecedents as long as the latter meet the relevant information-structural requirements, i.e. if they are identified as new information focus. Thus, the apparent restriction on subject antecedents for strong pronouns in cases like (93) and (94) above has in fact nothing to do with subjecthood, but with the fact that subjects most often function as topics.

This is further supported by the data in (96)-(97): while (96) is ungrammatical if the pronoun is interpreted as coreferential with the subject in the adverbial clause, the sentence improves significantly if the subject antecedent is in a postverbal position, as in (97). This is not surprising given that in languages like SC, subjects surface in a postverbal position if they represent new information focus (see fn. 36 above).

(96) *Kad se Nedžad pojavio, on je bio pijan.

when *se*_{REF.CL.} Nedžad showed.up, he_{STR.PRN.} is been drunk
[intended] ‘When Nedžad₁ showed up, he₁ was drunk.’

(97) ?Kad se pojavio Nedžad, on je bio pijan.

when *se*_{REF.CL.} showed.up Nedžad, he_{STR.PRN.} is been drunk
‘When Nedžad₁ showed up, he₁ was drunk.’

By contrast, weak pronouns are most readily interpreted as coreferential with topic antecedents and thus have a pragmatic role of marking *topic continuity* rather than topic-shift. This is further supported by examples in (98) and (99) below. In (98), the clitic is most naturally interpreted as coreferential with the entire subject phrase *Milan’s friend*, rather than just the possessor. However, the opposite is the case if the possessor is established as a discourse topic, as shown in (99):

(98) [Milanov₁ prijatelj]₂ tvrdi da **ga**_{2/??1} Jovan prati.

Milan's friend claims that him_{CL} Jovan follows

'Milan's friend claims that Jovan is following him.'

(99) *Milan is worried about Jovan; he suspects that he is following him.*

[Milanov₁ prijatelj]₂ tvrdi da **ga**_{1/??2} Jovan prati.

Milan's friend claims that him_{CL} Jovan follows

'Milan's friend claims that Jovan is following him.'

Note, however, that the pattern with weak pronouns in (98)-(99) is not exactly the opposite to the one found with strong pronouns – with strong pronouns, focus placement on one antecedent entirely rules out coreference with another potential antecedent, as shown in (94) and (95) above. Weak pronouns, on the other hand, still marginally allow antecedents that are not topics (i.e. the possessor in (98)) as well as antecedents that are focus – as indicated by the marginal acceptability of the continuation for the utterance in (100)B, given in (100)B'. I will revisit the data in (100) in Section 3.3, where I focus specifically on the implications of the present analysis for competition approaches to the distribution of different types of pronouns.

(100) A: *Who did Jovan want to go jogging with?*

B: Jovan₁ je želio da trči sa [Milanom₂]_{FOC}, ali je **pro**_{1/??2} bio bolestan.

Jovan is wanted that run with Milan but is *pro* been sick

'Jovan wanted to go jogging with Milan, but he was sick.'

B': ??Milan₂ je često bolešljiv, ne znam šta mu je.

Milan is often sick, not know what him_{DAT} is

'Milan is often sick, I don't know what's wrong with him.'

Finally, note that the parallelism between SC and English pronouns discussed in Chapter 2 (see Section 2.4.3) also extends to cases of intersentential anaphora discussed here. In (101)-(102), the only available antecedent is a discourse topic *Mary* – in such cases, an unstressed pronoun is used in English (101)B, and a clitic in SC (102)B. If the pronoun is stressed, as in (101)B’-(102)B’, it is necessarily interpreted contrastively in both languages (*John kissed Mary, and not Emma*).

(101) A: *Mary*₁ came to the party.

B: John kissed *her*₁.

B’: John kissed **HER**₁.

(102) A: *Mary*₁ came to the party.

B: Jovan *ju*₁ je poljubio (**nju*₁).

Jovan her_{CL} is kissed her_{STR.PRN}.

‘Jovan kissed her.’

B’: Jovan (**ju*₁) je poljubio **NJU**₁ (a ne Emu).

Jovan her_{CL} is kissed her_{STR.PRN} (and not Emma)

‘Jovan kissed her (and not Emma).’

To summarize, I have shown above that the same discourse conditions on coreferential pronouns apply both in cases of possessor binding discussed in the previous chapter and in environments where the pronoun is clearly not c-commanded by its antecedent, hence Condition B is not at issue. Moreover, I showed in Section 2.5 above that those conditions are irrelevant for traditional Condition B violations, which remain ungrammatical under the discourse conditions that make pronoun-coreferential-with-possessor configurations and cross-clausal cases of coreference discussed in this section acceptable. This further confirms that examples involving possessor binding discussed in Section 2.2 (cf. (44)-(45)) should not be analyzed as a Condition B

violation. The preceding discussion has also shown that SC patterns with English with respect to the relevant discourse conditions on coreferential pronouns, both in cases of possessor binding and in contexts where the coreferential elements are part of separate sentences, hence clearly not in a c-command relationship.

3.2.1 Parallels with German demonstrative pronouns

The division of labor between strong and weak pronouns in SC in this respect parallels the use of demonstrative and personal pronouns in languages like Dutch, German, and Swedish, where demonstrative pronouns are used to indicate topic-shift, while personal pronouns behave similarly to weak/clitic pronouns in SC in that they maintain the topic (i.e. aboutness phrase) of the preceding sentence (see Van Kampen 2008, a.o.). SC strong pronouns also parallel German demonstrative pronouns like *der* (he), *die* (she) and *das* (it) in that they must be disjoint from discourse topics. Unlike personal pronouns, demonstrative pronouns in German likewise cannot be coreferential with topic antecedents, a fact which led a number of authors to argue that they carry an antitopicality presupposition (see Bosch, Rozario and Zhao 2003, Bosch and Umbach 2007, Hinterwimmer 2015).⁴² For example, Hinterwimmer (2015) observes that demonstrative pronouns in German contrast sharply with personal pronouns like *er* (he), *sie* (she) and *es* (it) in that the former can only be coreferential with antecedents that are not “maximally salient” in the preceding sentence (Hinterwimmer 2015: 61). In other words, unlike personal pronouns, demonstrative pronouns cannot be referentially dependent on the most recent DP functioning as the discourse topic. As also argued by Bosch and Umbach (2007), the status of the antecedent in

⁴² The same behavior has also been observed for pronouns in Dutch (see Kaiser 2011, a.o.) and Finnish (Kaiser and Trueswell 2008).

terms of discourse topicality (and not grammatical role) crucially constrains the interpretive possibilities for demonstrative pronouns in German.⁴³

Consider in this respect example (103) below (from Bosch et al. 2003). In (103), the demonstrative pronoun can only be coreferential with the object of the preceding sentence (i.e. *the patient*) even though the subject *the head doctor* would be preferable in terms of plausibility (Hinterwimmer 2015: 62):

(103) Der Chefarzt₁ untersucht den Patienten₂. {Er_{1/2}/Der₂} ist nämlich Herzspezialist.

The head doctor₁ is examining the patient₂. He_{1/2}/DEM₁ is a heart specialist.

However, similarly to SC strong pronouns, the grammatical role of the antecedent does not seem to be the decisive factor here. Rather, it is the information-structural properties of the antecedent (i.e. discourse topicality) that are crucial. This is supported by cases like (104), where the subject that occurs in a non-canonical position can in fact serve as the antecedent for the demonstrative pronoun.

(104) [Den Patienten₁]_{DO} untersucht [der Chefarzt₂]_{Sub.}. Der₂ ist nämlich Herzspezialist.

The patient₁ was examined by the head doctor₂. DEM₂ is a heart specialist.

(Hinterwimmer 2015: 63)

In (104), the subject *der Chefarzt* (i.e. *the head doctor*) is preceded by the object *der Patient* (i.e. *the patient*). In contrast to (103) above, the demonstrative pronoun in (104) can be coreferential with the subject antecedent, i.e. there does not seem to be a conflict anymore between the reading

⁴³ Bosch and Umbach (2007) define discourse topics as phrases whose referents are discourse-old, which simply means that they were introduced into the discourse before but, crucially, not as new referents in the immediately preceding sentence.

that is favored on the basis of world knowledge and resolution preferences for the demonstrative pronoun. This would be unexpected if the grammatical role of the antecedent were crucial. Furthermore, the accent placement in (104) strongly suggests that the individual referred to by the object DP functions as the topic and thus cannot serve as the antecedent of the demonstrative pronoun: namely, as Hinterwimmer (2015: 63) notes, the sentence in (104) is most naturally read with the object de-accented, while the main accent falls on the subject phrase, thus indicating that the whole subject DP is focus-marked.

Furthermore, in contrast to the personal pronoun, the demonstrative pronoun in (105) can only be understood as coreferential with the subject antecedent. Bosch and Umbach (2007) argue that this is due to the fact that the object in (105) is understood as the discourse topic. Similarly, sentences like (106) below are extremely odd if the demonstrative pronoun is interpreted as coreferential with the only available antecedent (i.e. the object *her*) because the latter functions as the discourse topic.⁴⁴

⁴⁴ Building on Bosch and Umbach's (2007) observations, Hinterwimmer (2015) suggests that it is in fact aboutness topicality (in the sense of Reinhart (1981)) that is relevant here, rather than discourse topicality. More specifically, Hinterwimmer takes the notion of aboutness topicality to be a semantic one, i.e. the aboutness topic of a sentence is the denotation of a DP contained in that sentence, not the DP itself (though structural factors play a crucial role in determining which DP it is whose denotation functions as the aboutness topic of a sentence). Following Reinhart (1981), he interprets topic-comment structures as generalized subject-predicate structures: "the (denotation of the) topical DP (irrespective of case-marking, agreement relations and thematic role) is the logical subject, and the comment is the predicate applying to this subject" (Hinterwimmer 2015: 69). He further notes that while the logical subject typically corresponds to the grammatical subject which canonically appears in clause-initial position (and thus the required configuration automatically holds at the surface), this is not always the case. In languages like German, it is also possible to place another phrase in sentence-initial position, which in many (but not all) cases serves to mark the fronted constituent as the aboutness topic, as was the case in (104) above.

(105) Woher Karl₁ das weiß? Peter₂ has es ihm₁ gesagt. {Der₂/Er_{1/2}} war gerade hier.

How does Karl₁ know? Peter₂ told him₁. {DEM₂/He_{1/2}} has just been here.

(106) Woher Maria₁ das weiß? Peter₂ has es ihr₁ gesagt. {??Die₁/Sie₁} war gerade hier.

How does Maria₁ know? Peter₂ told her₁. {DEM₁/She₁} has just been here.

(Bosch and Umbach 2007: 10-11)

However, demonstrative pronouns can in fact allow coreference with topical antecedents under specific circumstances. Namely, Hinterwimmer (2015) observes that a demonstrative pronoun can be coreferential with a topic antecedent if an additional, often emotive meaning component is present. Thus, while the demonstrative pronoun in (107) cannot be coreferential with the aboutness topic of the preceding sentence (*Paul*), such interpretation becomes available in (108) (Hinterwimmer 2015: 89-90). Hinterwimmer suggests that this is so because the sentence in (108) has a special emotive meaning component because of being an exclamative, while (107) is neutral in this regard. I will revisit examples like (107)-(108) in Section 3.3.3, where I will argue that the availability of a demonstrative pronoun in cases like (108) is crucially related to the presence of the focus particle *always*.

(107) Gestern hatte Paul eine gute Idee.

yesterday had Paul a good idea

{**Er**/??**Der**} beschloss, Maria in die Oper einzuladen

he/DEM decided Maria in the opera to.invite

‘Yesterday Paul had a good idea. He decided to invite Maria to the opera.’

(108) Gestern hatte Paul eine gute Idee.

yesterday had Paul a good idea

{Er/Der} hat einfach immer die besten Ideen!

he/DEM has simply always the best ideas

‘Yesterday Paul had a good idea. He simply always has the best ideas!’

In sum, in this section I showed that demonstrative and personal pronouns in German exhibit similar antecedent requirements to those discussed for strong and weak pronouns in SC in Section 3.2 above. That is, it was shown that the interpretive possibilities for demonstrative and personal pronouns in German are also crucially constrained by the information-structural properties of their antecedents (but, importantly, not their grammatical role). Thus, while demonstrative pronouns in German were shown to behave identically to strong pronouns in SC in that they must be disjoint from discourse topics, personal pronouns, on the other hand, pattern with weak/clitic pronouns in SC in that they maintain the topic of the preceding sentence.

3.3 Implications for competition

The observation that weak and strong pronouns in SC have very specific antecedent requirements has important implications for our understanding of competition effects that arise when different pronominal forms are available in a language. As already noted by Chomsky (1981) in his *Avoid Pronoun Principle*, if a language has both overt and null pronouns available, null pronouns are the preferred option. The same holds for the alternation between clitic and strong pronouns – namely, clitic pronouns are generally preferred over strong pronouns in unmarked contexts. One prominent line of research analyzes these competition effects as resulting from an economy principle that favors structurally simpler pronouns over more complex ones, given that the preferred pronouns are assumed to be structurally simpler (see Cardinaletti and Starke’s (1999: 198) *Minimize*

Structure, Patel-Grosz and Grosz's (2017: 279) *Minimize DP!*, a.o.).⁴⁵ Thus, it is assumed that different pronominal forms in a language *compete* so that whenever there is an alternation between strong and weak forms, a competition principle uniformly picks the weaker form as a more economical option, hence weak pronouns are usually designated as a default option.

In this section, I will discuss SC strong and weak pronouns from the perspective of competition and show how the specific antecedent requirements of the two types of pronouns discussed above shed light on the above-mentioned competition principle. More precisely, it will be suggested that the competition in the relevant cases can be thought of in terms of properties of antecedents, rather than the structural properties of pronouns themselves. Relatedly, I will show that, if a given antecedent does not satisfy the requirements of either weak or strong pronouns, both forms are unavailable in that case – that is, there is no competition. The latter observation poses obvious problems for accounts that rely on structural economy and treat weak pronouns as a default option.⁴⁶ In addition, the latter type of approach predicts that strong forms should in principle be available when weak ones are not. I will demonstrate that it is not always the case that strong pronouns are allowed if their weak counterparts are ruled out for independent reasons (e.g. association with focus) – that is, there are cases where strong pronouns are disallowed despite not competing with the weak forms. Again, the unavailability of strong pronouns in such cases will be attributed to the properties of given antecedents. Thus, given that there are cases where both types of pronouns yield an ungrammatical result, I will conclude that the distribution of strong and weak

⁴⁵ This economy principle could in principle be part of the grammar proper or a pragmatic principle.

⁴⁶ Importantly, the cases discussed below will not involve Condition B violation configurations, where both weak and strong forms are forbidden. Rather, they will involve cases of long-distance coreference, where the antecedent c-commanding the pronoun is in a separate binding domain.

forms in SC cannot fully be explained in terms of a competition approach mentioned above; rather, it will be shown that an antecedent-oriented approach has a wider empirical coverage.

Finally, I will discuss similar competition effects observed for German demonstrative and personal pronouns (as discussed in Patel-Grosz and Grosz 2017) and show how the present approach fares against that data as well. Though I will leave open the question of whether competition in all instances can be reduced to properties of antecedents, the discussion below will at least suggest that such an approach is not implausible for the data at hand; in fact, it will be shown that it might be advantageous in certain respects to structural economy approaches mentioned above.

3.3.1 Competition in Serbo-Croatian

In Section 3.2, I argued that strong pronouns in SC are topic-shifting devices that take new information focus antecedents and turn them into new topics, while weak pronouns (i.e. clitics, *pro*) are oriented towards antecedents that constitute discourse/sentence topics. Consider in this respect the examples in (109) and (110) below, which involve cases of long-distance coreference (i.e. the antecedent c-commands the pronoun, but is located in a separate binding domain, i.e. a different clause). It is standardly assumed that some form of competition between different anaphoric elements (i.e. weak and strong pronouns) is responsible for the impossibility of coreference in contexts like (109)a and (110)a.⁴⁷ Given that only the weak forms (a *pro* in (109)b

⁴⁷ Note that Condition B is not at issue here as the pronouns are in separate clauses from their antecedents, though some form of a competition principle is argued to apply even when pronouns are in the same domain as their antecedents. Recall in fact that Despić (2011, 2013) argues that competition is another key factor governing the distribution of different anaphoric elements (reflexives, pronouns and R-expressions) in SC, in addition to the core binding principles. More specifically, he adopts a competitive mechanism proposed by Safir (2004) (the so-called *Form to Interpretation Principle*), which determines whether an identity reading is possible with respect

and a clitic pronoun in (110)b) are acceptable under the intended interpretation, it is assumed that they rule out or ‘outcompete’ the strong forms, thus giving rise to the ungrammaticality of (109)a and (110)a. An exception occurs if the strong pronouns bear focus, as in (109)c and (110)c.

(109) a. *Milan₁ misli da je **on**₁ pametan.

Milan thinks that is he_{STR.PRN.} smart

b. Milan₁ misli da je *pro*₁ pametan.

Milan thinks that is *pro* smart

c. Milan₁ misli da je *samo* **on**₁ pametan.

Milan thinks that is only him_{STR.PRN.} smart

‘Milan₁ thinks that he₁ / only he₁ is smart.’

(110) a. *Jovan₁ misli da studenti vole **njega**₁.

Jovan thinks that students love him_{STR.PRN.}

b. Jovan₁ misli da **ga**₁ studenti vole.

Jovan thinks that him_{CL} students love

c. Jovan₁ misli da studenti vole *samo* **njega**₁.

Jovan thinks that students love only him_{STR.PRN.}

‘John₁ thinks that students love him₁ / only him₁.’

Despić’s (2011) analysis of strong and weak pronouns in SC has implications for the paradigm in (109)-(110) above. Namely, the prediction of his account is that the strong pronoun is illicit in

to some designated antecedent when different dependent forms are available in a given syntactic context. Form to Interpretation Principle is essentially intended to capture the observation that a more dependent form (e.g. a reflexive, or, in our case, a weak pronoun) outcompetes a less dependent form (e.g. a pronoun or an R-expression) to represent the identity reading with a c-commanding antecedent. See Despić (2011, 2013) and Safir (2004) for more details in this respect.

(109)a and (110)a because strong pronouns, as he proposes, always introduce new referents, which is presumably what makes them incompatible with the identity readings in (109)a-(110)a.⁴⁸ That is, unlike weak pronouns, Despić argues that strong pronouns in SC have a [+new referent] feature which bans them from being coreferential with given antecedents.

However, as indicated in (109)c and (110)c, the coreference becomes possible if the pronoun is in the scope of the focus operator *only*. Despić provides a rather interesting analysis of the focus exception, accounting for it in the following manner. He claims that focused strong pronouns, as in (109)c and (110)c, are in fact not genuine strong pronouns but masked clitics that take the form of strong pronouns at PF in order to satisfy the phonological requirements of focus. Then, given that the strong pronoun in (109)c and (110)c is in fact a ‘camouflaged’ clitic, the grammaticality of the intended identity reading with given antecedents is not unexpected since clitics do not introduce new referents into the discourse. However, while the ‘camouflaged clitic’ approach provides a rather interesting insight, it turns out to be problematic for several reasons. First, note that in an approach like Despić’s, a [+new referent] feature is posited as a property of ‘genuine’ strong pronouns to capture their inability to co-refer with given antecedents in contexts similar to (109)a and (110)a. However, this analysis is problematic given the data in (111) and (112), which crucially differ from (109)c and (110)c in that they do not involve focus. Note that the identity reading for strong pronouns is allowed in (111) and (112), on a par with (109)c and (110)c. However, given that the pronoun in (111) and (112) is not associated with focus and hence cannot be analyzed as a ‘camouflaged’ clitic, the grammaticality of coreference here is unexpected.

⁴⁸ Despić in fact discusses cases that resemble (109) and (110) except that instead of referring expressions, he uses quantified noun phrases like ‘every student’ as antecedents (which makes the pronoun a bound variable). This is the so-called Montalbetti’s effect (see Montalbetti 1984).

In fact, clitics never occur as complements of Ps or in coordination, which also indicates that it is difficult for the camouflaged clitic analysis to be extended to (111) and (112).

(111) Jovan₁ misli da će studenti ići [PP S *njim*₁] na proteste.

Jovan thinks that will students go with him_{STR.PRN.} on protests

‘Jovan₁ thinks that the students will go to the protests with him₁.’

(112) Jovan₁ misli da studenti vole [*njega*₁ i profesora istorije].

Jovan thinks that students love him_{STR.PRN.} and professor of.history

‘Jovan₁ thinks that students love [him₁ and the history professor].’

In addition, (111) and (112) show that the [+new referent] feature cannot be an inherent property of strong pronouns; at best, it is a property of strong pronouns that are in competition with weak pronouns. At any rate, the fact that (111) and (112) show that ‘genuine’ strong pronouns sometimes do allow coreference with given antecedents raises a problem for the camouflaged clitic approach.⁴⁹ Furthermore, if there is going to be a unified account of (109)c and (110)c under the

⁴⁹ Stegovec (2019) descriptively labels pronouns in (111) and (112) as *strong-only* pronouns (that is, the pronouns that are not in competition with weak forms), which Stegovec argues are semantically equivalent to clitic pronouns (e.g. unlike strong pronouns, *strong-only* pronouns can take both animate and inanimate antecedents; see the discussion below). Note that the focused pronouns, as in (109)c and (110)c above, cannot be categorized as *strong-only* pronouns under my approach – namely, my claim is that the exceptional behavior of focused pronouns in such cases results from focus placement, rather than the absence of weak counterparts. I will show below that it is the focus placement on strong pronouns, rather than the absence of competition, that facilitates coreference in the relevant cases. In other words, it follows from the analysis presented here that it is focus in general (either on the antecedent of a strong pronoun or on the pronoun itself; another case will actually be introduced in Section 3.4 below, where what is focalized is neither the antecedent nor the pronoun) that is crucial for licensing of strong pronouns, rather than (un)availability of „smaller“ pronouns. However, as will be discussed below, I do consider the absence of competition a relevant factor for understanding the nature of coreferential strong pronouns in particular.

camouflaged clitic analysis, it would be necessary to posit camouflaged clitics in subject positions as well, as in (109)c. But subject clitics do not exist here – that is, clitic pronouns never surface in subject positions in SC. Rather, the only alternate form that is available in subject positions is a null pronoun (i.e. a *pro*), as shown in (109)b. Thus, for a uniform account of (109)c and (110)c, the approach under consideration would need to posit that the pronoun in (109)c is a camouflaged *pro*.⁵⁰

I will now show that given the observations I made in the previous sections, the paradigm in (109) and (110) can be easily captured without any additional stipulations. I will show below that cases of long-distance coreference, as in (109) and (110), can be analyzed in the same manner as those where the pronouns and antecedents were part of the same binding domain (see the discussion in Chapter 2).

Recall that I showed that strong pronouns in SC cannot be coreferential with antecedents already given in the discourse; on the contrary, they can only co-refer with antecedents that are new information focus. Relatedly, in Section 3.2, it was demonstrated that defocalized phrase scrambling directly affects antecedent possibilities for strong pronouns in cases of intersentential anaphora (cf. (94)-(95)). Given that, it follows naturally that the observed restriction on the interpretation of strong pronouns in cases like (109)a and (110)a should likewise be treated as resulting from the relevant properties of antecedents, rather than strong pronouns themselves. Moreover, the exceptions in (109)c and (110)c can be accounted for without introducing the concept of clitics disguised as strong pronouns. Namely, it was demonstrated in Chapter 2 that coreferential strong pronouns in SC are licensed by contrastive focus. However, given that weak

⁵⁰ Despić (2011) does provide an independent argument for the concept of camouflaged clitics based on an animacy restriction on strong pronouns. The argument will be discussed below in Section 3.3.2.

pronouns cannot be focused, it might be argued that focused strong pronouns are exceptional not because they are ‘camouflaged’ clitics, as Despić argues, but because there is no alternative form available, i.e. there is no competition. Note, however, that this approach also appears to predict that strong pronouns are allowed whenever weak forms are unavailable and vice versa, contrary to fact.

Consider again cases like (62) and (64) and (67) and (70) from Chapter 2, repeated here as (113)-(114) and (115)-(116) (note that index 2 in examples (115) and (116) is meant to refer to any individual other than the one represented by index 1):

(113) A: *Who did Kusturica’s latest movie disappoint?* *STR.PRN.

B: *Kusturicin₁ najnoviji film je razočarao *njega*₁.

Kusturica’s latest movie is disappointed him_{STR.PRN}.

[intended] ‘Kusturica₁’s latest movie disappointed him₁.’

(114) A: *Did Kusturica’s latest movie disappoint his sister?* ✓STR.PRN.

B: Ne. Kusturicin₁ najnoviji film je razočarao **NJEGA**₁.

no. Kusturica’s latest movie is disappointed him_{CONT.FOC}.

‘No. Kusturica₁’s latest movie disappointed him₁ (not his sister).’

(115) A: *Who did Kusturica’s latest movie disappoint?* *CL.

B: *Kusturicin₁ najnoviji film *ga*_{1/2} je razočarao.

Kusturica’s latest movie him_{CL} is disappointed

[intended] ‘Kusturica₁’s latest movie disappointed him₁.’

(116) A: *Did Kusturica’s latest movie disappoint his sister?* *CL.

B: *Ne. Kusturicin₁ najnoviji film **GA**_{1/2} / *ga*_{1/2} je razočarao.

no. Kusturica’s latest movie him_{CL} is disappointed

[intended] ‘Kusturica₁’s latest movie disappointed him₁ (not his sister).’

As discussed before, the strong pronoun in (113) is ruled out under the intended interpretation because the antecedent represents given information. However, the coreference is allowed if the pronoun is contrastively focused, as shown in (114). Since clitics are disallowed in the context parallel to (114), as shown in (116), it might be argued that the strong pronoun in (114) is licit precisely because it cannot be replaced with a clitic pronoun. Consider in this respect the pair in (113) and (115). Given the complementarity of strong and weak forms illustrated in (114) and (116), it would follow that the ill-formedness of (113) results from the fact that an alternative, weaker form is available in that context. However, (115) shows that clitics are completely ruled out in configurations parallel to (113). As discussed in Chapter 2, clitics are ungrammatical in both (115) and (116) for reasons independent of coreference – that is, they are ruled out in the relevant cases even when they are not coreferential with the possessor antecedent. Then, the ungrammaticality of a strong pronoun in (113) cannot be regarded as a consequence of competition; and, by analogy, the grammaticality of the coreferential focused pronoun in (114) should not follow from the absence of competition either; rather, the fact that the contrastively focused strong pronoun in (114) is grammatical under the intended interpretation is a direct consequence of focus placement on the pronoun. This leads me to argue that the ungrammaticality of (113), and the parallel example containing a weak pronoun in (115), is a consequence of the information-structural properties of the antecedents – namely, the possessor in (113) and (115) does not qualify as a potential antecedent neither for strong pronouns nor for clitics, hence the absence of competition. Recall that clitics require antecedents that are topics, and the topic in (115) is the entire nominal phrase, not the possessor. On the other hand, the fact that the possessor constitutes given information is enough to rule out the strong pronoun in (113).

The same antecedent restrictions were also observed in (98)-(99), given below in a slightly modified version as (117)-(118): in (117), neither the clitic nor the strong pronoun can take the possessor as the antecedent. For the strong pronoun, contrastive focus facilitates coreference with the whole NP, only marginally allowing it to refer to the possessor, while the clitic is only allowed if the context establishes the possessor as a topic of the discourse, as is the case in (118).

(117) *Who does Milan's friend claim that John is following?*

a. [Milanov₁ prijatelj]₂ tvrdi da **ga**_{2/??1} Jovan prati.

Milan's friend claims that him_{CL} Jovan follows

b. [Milanov₁ prijatelj]₂ tvrdi da Jovan prati **njega**_{*1/*2} / **NJEGA**_{2/??1}.

Milan's friend claims that Jovan follows him_{STR.PRN}.

'Milan's friend claims that Jovan is following him.'

(118) *Milan is worried about John; he suspects that he is following him.*

[Milanov₁ prijatelj]₂ tvrdi da **ga**_{1/??2} Jovan prati.

Milan's friend claims that him_{CL} Jovan follows

'Milan's friend claims that Jovan is following him.'

We can therefore conclude that the ill-formedness of the strong pronouns in (109)a and (110)a above, where the antecedent is in a separate binding domain, fully parallels the observations pertaining to (113)-(116), where the antecedent and the pronoun are in the same binding domain; in other words, it was shown that the antecedent-oriented approach argued for in Chapter 2 can be easily extended to cases of long-distance coreference. Namely, the paradigm in (113)-(116) demonstrates that the properties of antecedents impact the interpretation of strong and weak pronouns in the relevant cases – that is, their discourse status was shown to be crucial for understanding why coreferential strong forms are sometimes ruled out even when their weak

counterparts are not available, as in (113) and (116) above. Furthermore, it was shown that focus on pronouns plays an important role in licensing coreferential strong forms. Thus, on a more abstract level, it seems that focus in general (realized either as a new information focus on antecedents or as contrastive focus on pronouns) is important for understanding the distribution of strong pronouns, rather than the (un)availability of „smaller“ pronouns.⁵¹

Regarding weak pronouns, we can now account for their default status in the theories of competition mentioned at the beginning of Section 3.3: namely, weak pronouns appear to be a default option precisely in those cases where the antecedent is a topic, as in (109) and (110); in contexts where the antecedent is new information focus, it is the strong pronoun that outcompetes the weak one, as shown in (93) and (94) above, among others. Furthermore, we have seen that if

⁵¹ Furthermore, the above discussion suggests that there is something special about the contrast that licenses strong pronouns in SC in cases where the antecedent requirements are not met (i.e. when the antecedent is not new information focus). Note that contrast is also involved in cases like (109)c and (110)c, where the strong pronoun is associated with the focus particle *only*. It could then be argued that a contrastive component is present both in cases of contrastive focus, as in (114), and in cases where focus is associated with a focus-sensitive particle *only*, as in (109)c and (110)c. Umbach (2004), for instance, discusses contrastive phenomena in information structure, and suggests that both instantiations of focus involve the key component of the notion of contrast, namely exclusion. Consider in that regard (i) and (ii) below. Contrastive focus in (i) excludes the possibility that some other item instead of the focused one makes the proposition true, whereas the *only*-phrase in (ii) excludes the possibility that some item in addition to the focused one makes the proposition true (see Umbach 2004 for a more detailed discussion).

(i) A: *Did Kusturica's latest movie disappoint his sister?*

B: Ne. Kusturicin₁ najnoviji film je razočarao **NJEGA**₁ (a ne njegovu sestru).
no. Kusturica's latest movie is disappointed him_{STR.PRN.} and not his sister
'No. Kusturica's latest movie disappointed him (*not his sister*).'

(ii) Jovan₁ misli da studenti vole *samo njega*₁ (# *i profesora istorije*)

Jovan thinks that students love only him_{STR.PRN.} and professor of.history
'Jovan thinks that students like only him (# *and the history teacher*).'

an antecedent does not satisfy the requirements of either weak or strong pronouns, both forms are unavailable – that is, there is no competition. This poses an obvious problem for the approaches to competition discussed above.

However, this is not to say that the notion of competition should entirely be dispensed with. Namely, in cases where strong forms do compete with the weak ones, the strong-over-weak choice also has an important pragmatic effect. Consider, for instance, the example in (94) from Section 3.2 above, repeated here as (119), where both strong and weak pronouns are allowed. The fact that strong pronouns in SC can only take antecedents that are new information focus yields a pragmatic effect in (119)B – namely, the choice of the strong pronoun over the weak one marks a topic-shift in this case.

(119) A: *Every weekend Marija invites a colleague from work to her place. Do you know who she invited for dinner today?*

B: Danas je [Marija₁]_{TOP} ugostila [Mašu₂]_{FOC}. **Ona**_{2/*1} je napravila veliki nered
 today is Marija invited Maša. She_{STR.PRN.} is made big mess
 praveći salatu!
 making salad

B': Danas je [Marija₁]_{TOP} ugostila [Mašu₂]_{FOC}. Napravila **pro**_{1/??2} je veliki nered
 today is Marija invited Maša. made *pro* is big mess
 praveći salatu.
 making salad

‘Today, Marija₁ invited Maša₂. She₂ made a big mess making a salad!’

Furthermore, in contexts where weak pronouns are in principle disallowed, e.g. coordination, the requirement for strong pronouns to take new information focus antecedents does not hold – that

is, strong pronouns lack the topic-shift function if no competing weak form is available. Thus, in (120), contrary to (119)B, the strong pronoun is most naturally interpreted as coreferential with the antecedent that is the topic. This indicates that the antecedent requirements on coreferential strong pronouns discussed above hold only in competition contexts, as in (119)B, not in cases where weak forms are ruled out independently, as in (120). This is further confirmed by examples like (121), where the strong pronoun bears contrastive focus and is interpreted as coreferential with the topic antecedent (recall that clitics cannot be contrastively focused).

(120) Danas je [Marija₁]_{TOP} ugostila [Maša₂]_{FOC}. [*Ona*_{1/??2} i Milan] su napravili veliki nered
 today is Marija invited Maša. She_{STR.PRN.} and Milan are made big mess
 praveći salatu!
 making salad
 ‘Today, Marija₁ invited Maša₂. She_{1/??2} and Milan made a big mess making a salad!’

(121) Danas je [Marija₁]_{TOP} ugostila [Maša₂]_{FOC}. *ONA*_{1/??2} je napravila veliki nered
 today is Marija invited Maša. She_{CONT.FOC.} is made big mess
 praveći salatu.
 making salad
 ‘Today Marija₁ invited Maša₂. She_{1/??2} made a big mess making a salad!’

Thus, the topic-shift function of strong pronouns (discussed in detail in Section 3.2) is contingent upon the presence of alternative weak forms – that is, it is a byproduct of competition, or rather, a pragmatic effect that warrants the strong-over-weak choice. Therefore, whenever strong and weak forms compete, the “bigger” one is allowed only as a topic-shift anaphor, i.e. if it takes an antecedent that is new information focus and turns it into a new topic. However, we also saw that competition alone does not suffice to explain all the relevant data in SC given that both

coreferential weak and strong pronouns are ruled out in certain environments. In other words, both the notion of competition and the discourse requirements on the antecedents of pronouns established above seem to be needed. At any rate, the above discussion indicates that the discourse requirements on coreferential strong pronouns hold only in competition contexts, i.e. when weak forms are also available.

3.3.2 Overriding animacy restrictions

In this section I will discuss an animacy restriction on different kinds of pronominal elements, which Despić (2011) actually argued provides evidence for the concept of camouflaged clitics.

It is commonly assumed that clitic pronouns do not have animacy features and thus allow for both animate and inanimate antecedents, while strong pronouns are specified as [+human] and are therefore restricted to animate antecedents only (see, for example, Cardinaletti and Starke 1999, Franks 2016, Stegovac 2019). In this section, I will show that the topic-shift function of strong pronouns discussed above can override the animacy restriction on strong pronouns in SC in cases when weak pronouns are also available.

Despić (2011) shows that strong pronouns in SC can only take animate antecedents, as opposed to their clitic counterparts. Namely, he argues that strong pronouns are marked as [+human] and thus do not allow inanimate antecedents, while clitics (and null pronouns) can take both animate and inanimate antecedents. Consider in this regard the example in (122) from Despić (2011: 240). While the referent of the strong form in (122)b is most naturally interpreted as human ('I heard her singing on the radio'), the referent of the weak form in (122)a can in principle be either human or non-human ('I heard the song_{FEM.} on the radio').

(122) a. Čuo sam *je*. <+human> <-human>

heard am her_{CL} ✓ ✓

‘I heard her.’

b. Čuo sam *nju*. ✓ *?

heard am her_{STR.PRN}.

‘I heard her.’

Importantly, Despić (2011: 246) shows that strong pronouns do allow non-human interpretation when they are focused, as shown in (123) below. On a par with examples like (109)c and (110)c above, Despić proposes that the strong pronoun in (123) is a ‘camouflaged’ clitic, spelled out as strong because of the prosodic requirements of focus.⁵² In other words, the pronoun in (123) is only morphologically strong; semantically, it behaves like a weak pronoun in that it allows a non-human interpretation, hence the suggestion that it is in fact a clitic underlyingly.

(123) Čuo sam čak i *nju*. <+human> <-human>

heard am even and her_{STR.PRN}. ✓ ✓

⁵² Despić shows that clitics cannot be associated with focus by giving the examples in (i)-(ii): in (i), the pronominal clitic cannot be modified by the focus operator *only*, as indicated by the impossibility of the relevant interpretation; on the other hand, the strong form in (ii) allows both interpretations, which shows that, unlike clitics, strong pronouns can be interpreted as focalized (from Despić 2011: 244):

(i) Samo sam *ga* vidio.

only am him_{CL} saw

‘I only saw him.’ (I only saw him, but I didn’t talk to him)

but not: ‘I saw only him’ (I only saw him and nobody else)

(ii) Samo sam *njega* vidio.

only am him_{STR.PRN} saw

‘I only saw him.’ (I only saw him, but I didn’t talk to him)

‘I saw only him.’ (I saw only him and nobody else)

‘I heard even her.’

This appears to provide a very interesting argument for the concept of camouflaged clitics. However, I will show that unfocused strong pronouns (hence, not camouflaged clitics) do in fact allow for non-human antecedents. Consider in this regard the example in (124) below, where the pronoun is part of coordination. Under Despić’s analysis, we would expect that strong pronouns only allow for [-human] interpretation if focused – that is, if they are camouflaged clitics. Given the well-known observation that clitics cannot be coordinated, which means that coordination blocks the camouflaged clitic option, it is then expected that the coordinated strong pronoun in (124) would disallow [-human] referents. However, the prediction is not borne out: the coordinated strong pronoun in (124) can in fact be coreferential with the inanimate antecedent in the preceding sentence.⁵³

- (124) Jutros me je radio₁ probudio. [*On*₁ i moja žena] su glavni krivci za moj
this.morning me_{CL} is radio woke.up. He and my wife are main culprits for my
vječiti nedostatak sna.
eternal lack.of sleep
‘The radio₁ woke me up this morning. [He₁ and my wife] are the main culprits for my eternal
lack of sleep.’

Furthermore, I will now show that overriding the animacy restriction on strong pronouns has an important pragmatic effect in contexts where strong pronouns compete with weak pronouns. Namely, choosing strong-over-weak to indicate coreference with non-animate antecedents serves a pragmatic purpose of marking topic-shift. Consider the sentences in (125): as shown in (125)a

⁵³ Note that *radio* (124) is masculine in SC, a language with arbitrary, grammatical gender.

and (125)b, both the strong pronoun and *pro* can be used to refer to inanimate antecedents (note, crucially, that the strong pronoun in (125)a is not focused).

(125) *What happened with the television?*

a. Televizor₁ je pao na stakleni sto₂, ali se **on**_{2/*1} nije slomio.

television is fell on glass table but *se*_{REF.CL.} *he*_{STR.PRN.} not broken

b. Televizor₁ je pao na stakleni sto₂, ali **pro**_{1/??2} se nije slomio.

Television is fell on glass table but *pro* *se*_{REF.CL.} not broken

‘The television₁ fell on the glass table₂, but it_{1/2} didn’t break.’

However, the two forms yield distinct interpretations. More specifically, the strong pronoun in (125)a differs from its weak counterpart in (125)b in the choice of the antecedent: while the former can only refer to *the glass table*, the latter is most naturally interpreted as co-referent with the antecedent that is the topic, i.e. *the television*. This is not surprising given the above observation that the information status of the antecedent restricts the interpretation of different pronominal forms. Importantly, note that the strong pronoun in (125)a functions as a topic-shift anaphor – it disambiguates towards the antecedent that the weak form cannot be co-indexed with, that is, it takes a focus antecedent (i.e. *the glass table*) and turns it into a new topic. That the strong form in (125)a performs a discourse function that a weak form cannot perform thus enables it to override the usual animacy restriction on strong forms.

3.3.3 Back to German

In Section 3.2.1 above, it was demonstrated that there is a contrast between demonstrative and personal pronouns in German which parallels a contrast we have observed for strong and weak pronouns in SC. Namely, it was shown that while demonstrative pronouns in principle disallow

coreference with topic antecedents and are instead used to indicate topic-shift, personal pronouns are used to maintain the topic of the preceding sentence, thus marking topic-continuity. As indicated at the beginning of Section 3.3, these asymmetries in pronominal systems are commonly taken to derive from underlying structural asymmetries. For instance, authors like Patel-Grosz and Grosz (2017) claim that personal and demonstrative pronouns in German are subject to a general structural economy constraint which rules out more complex pronouns unless certain pragmatic effects are at play. In order to derive the distribution of German pronouns, Patel-Grosz and Grosz (2017) argue that the two types of pronouns differ structurally: both have the same core make-up (both contain a null NP and a definite determiner), but demonstratives have an additional layer of functional structure (essentially, a DP shell) that personal pronouns lack. Then, the distribution of the two pronoun types is subject to a structural economy constraint given in (126) below (Patel-Grosz and Grosz 2017: 279).

(126) *Minimize DP!*

An extended NP projection α is deviant if α contains redundant structure, that is, if

- a. there is an extended NP projection β that contains fewer syntactic nodes than α ,
- b. β is grammatical and has the same denotation as α (= Referential Irrelevance), and
- c. using α instead of β does not serve another purpose (= Pragmatic Irrelevance).

Given the structural economy account described above, pronouns with more structure (i.e. German demonstrative pronouns) are ruled out by default as a consequence of *Minimize DP!*. In other words, they are the marked option that requires pragmatic licensing, as indicated in (126)c. Thus, for example, in contexts where there is a single possible antecedent for the pronoun that is also a discourse topic, a demonstrative pronoun is predicted to be disallowed unless used with an additional pragmatic force. To illustrate this, Patel-Grosz and Grosz use Hinterwimmer's (2015)

examples given in (107)-(108) above (repeated here as (127)-(128)). Thus, they argue that while the antitopicality of German demonstrative pronouns (see Section 3.2.1) excludes them from contexts like (127) below, the demonstrative pronoun becomes felicitous in such cases if used to signal positive or negative emotivity – that is, if there is an additional pragmatic force that warrants the use of more structure. They therefore take cases like (128) below to indicate that as soon as the context gives rise to what they consider an expression of emotivity (by way of exclamation, for example), a demonstrative pronoun becomes acceptable – even if it refers back to a topic antecedent (Patel-Grosz and Grosz 2017: 281).

(127) Gestern hatte Paul eine gute Idee.

yesterday had Paul a good idea

{**Er**/?**Der**} beschloss, Maria in die Oper einzuladen

he/DEM decided Maria in the opera to.invite

‘Yesterday Paul had a good idea. He decided to invite Maria to the opera.’

(128) Gestern hatte Paul eine gute Idee.

yesterday had Paul a good idea

{**Er**/**Der**} hat einfach immer die besten Ideen!

he/DEM has simply always the best ideas

‘Yesterday Paul had a good idea. He simply always has the best ideas!’

According to Patel-Grosz and Grosz, the demonstrative pronoun in examples like (128) above is licensed because it has a pragmatic effect of emphasizing the emotivity of the utterance. As stipulated by the economy principle given in (126), the availability of structurally ‘bigger’ pronouns depends on the presence of a pragmatic effect such as emotivity in (128). In the next section, I will show that under the approach developed here, the availability of coreferential strong

pronouns (or, adopting Patel-Grosz and Grosz terminology, structurally bigger pronouns) in contexts where weak pronouns are also available is crucially dependent upon the presence of focus. The account will also be extended to German examples like (128).

3.4 Focus elsewhere

I argued above that the availability of the coreferential reading for strong pronouns in SC depends on focus such that the relevant interpretation is allowed only if the antecedent of the pronoun represents new information focus or, alternatively, if the pronoun bears contrastive focus. In this section I will introduce a third way of licensing of coreferential strong pronouns in SC – namely, by placing contrastive focus on elements other than the pronoun itself (the relevant examples will also not involve new information focus on the antecedent or the pronoun).

Consider first the SC example in (129), which is parallel to the example from German given in (128) above:

(129) Nataša₁ je juče dobila dobru ideju. ***Ona***₁ ima *uvijek* najbolje ideje!

Nataša is yesterday got good idea. She_{STR,PRN} has always best ideas

‘Yesterday Nataša₁ had a good idea. She₁ always has the best ideas!’

The strong pronoun in (129) can be coreferential with the topic of the preceding sentence, on a par with the German demonstrative pronoun in (128). Notice first that the ‘emotivity’ effect discussed in Patel-Grosz and Grosz (2017) in fact derives from the presence of focus, in particular the adverb *always* is focused in both (128) and (129). Such examples are then less surprising from the current perspective, where focus plays a crucial role in licensing coreferential readings of strong pronouns; in fact, cases like these introduce a new way for focus to matter in licensing such readings. Notice that neither the pronoun nor the antecedent bear focus in (128) and (129). Rather, it is the adverb

always, present in both (128) and (129), that is contrastively focused. It is then possible that the presence of focus on another element in the sentence can facilitate the use of strong forms in SC.

If focus placement on the adverb is indeed pertinent to pronominal licensing here, we would expect that, in contrast to strong pronouns, weak pronouns would be degraded in examples like (129), on a par with the cases discussed above where focus was placed either on the pronoun or on the antecedent. That is, if it is the focus that licenses the strong pronoun in (129), weak pronouns should be outcompeted in these cases as well.

The prediction is borne out: (130)b and (131)b show that both a *pro* (cf. (130)a) and a clitic pronoun (cf. (131)a) are infelicitous when contrastive focus is on the adverb. We can therefore conclude that it is the focus that licenses the use of the strong form here, rather than the pragmatic effect of emotivity.^{54,55}

⁵⁴ Note that Patel-Grosz and Grosz (2017) do not consider the possibility that focus might be affecting the choice of a pronoun. However, a note of caution is in order. Although it seems that it is indeed focus rather than emotivity that licenses the demonstrative pronoun in (128), it remains to be verified whether Patel-Grosz and Grosz's emotivity effect can be fully reduced to contrastive focus (it is not out of question that there is a separate emotivity effect which arises only with demonstrative pronouns). I leave this for future work.

⁵⁵ Similarly to Patel-Grosz and Grosz (2017), Sichel and Wiltschko (2021) analyze the competition between personal and demonstrative pronouns in German in contexts similar to (128), where the choice of a demonstrative pronoun triggers a pragmatic effect. However, they focus specifically on the so-called *N(egative)*-effect of demonstrative pronouns (arguably, the opposite of what Patel-Grosz and Grosz call *positive emotivity* in (128)) and analyze it as a special kind of implicature, rooted in pronominal features and determined by the presence of a pronominal alternative, i.e. competition (see Sichel and Wiltschko (2021) for more details). It should, however, be noted that they also do not control for focus in the contexts where a demonstrative pronoun is used and triggers the N-effect. Thus, it would be necessary to control for focus in such cases in order to examine whether the N-effect is a byproduct of focus or not.

- (130) a. Marija₁ je juče dobila odličnu ideju. **Ona**₁ ima *uvijek* najbolje ideje!
 Marija is yesterday got excellent idea. She_{STR.PRN.} has always best ideas
- b. Marija₁ je juče dobila odličnu ideju. (??)**Pro**₁ ima *uvijek* najbolje ideje!
 Marija is yesterday got excellent idea. *Pro* has always best ideas
 ‘Yesterday Marija₁ got an excellent idea. She₁ always has the best ideas!’
- (131) a. Marija₁ je juče dobila odličnu ideju. Miloš **nju**₁ pita *uvijek* za mišljenje.
 Marija is yesterday got excellent idea. Miloš her_{STR.PRN.} asks always for opinion
- b. Marija₁ je juče dobila odličnu ideju. (??)Miloš **je**₁ pita *uvijek* za mišljenje.
 Marija is yesterday got excellent idea. Miloš her_{CL.} asks always for opinion
 ‘Yesterday Marija₁ got an excellent idea. Miloš always asks her₁ for opinion.’

Furthermore, it is not only focus on adverbs, as in (130) and (131), that can license a strong pronoun – focus on another argument has a similar effect. This is shown in (132) and (133), where an argument other than the pronoun is focalized and the strong pronouns are crucially preferred over their weak counterparts as well.

- (132) a. Marija₁ je prilično rezervisana osoba. *Samo* Petru se **ona**₁ povjerava.
 Marija is pretty reserved person. Only Petar_{DAT.} s_{REF.CL.} she_{STR.PRN.} confides.in
- b. Marija₁ je prilično rezervisana osoba. (??)*Samo* Petru se **pro**₁ povjerava.
 Marija is pretty reserved person. Only Petar_{DAT.} s_{REF.CL.} *pro* confides.in
 ‘Marija₁ is a pretty reserved person. She₁ confides in Petar only.’
- (133) a. Marija₁ je prilično rezervisana osoba. *Samo* Petar **nju**₁ poznaje.
 Marija is pretty reserved person. Only Petar her_{STR.PRN.} knows
- b. Marija₁ je prilično rezervisana osoba. (??)*Samo* Petar **je**₁ poznaje.
 Marija is pretty reserved person. Only Petar her_{CL.} knows

‘Marija₁ is a pretty reserved person. Only Peter knows her₁ well.’

The same effect is achieved if the verb bears contrastive focus, as in (134)-(135):

(134) A: Marija₁ još radi na tom projektu.

Marija still works on that project

‘Marija is still working on that project.’

B: Ne. **Ona**₁ je ODUSTALA_{CONT.FOC.} od tog projekta.

no. She_{STR.PRN.} is given.up. from that project

B’: Ne. (?)?? **pro**₁ ODUSTALA_{CONT.FOC.} je od tog projekta.

no. *pro* given.up is from that project

‘No. She gave up on that project.’

(135) A: Marija₁ se odselila iz stana.

Marija _{se_{REF.CL.}} moved.out from apartment

‘Marija moved out of the apartment.’

B: Ne. **Nju**₁ su IZBACILI_{CONT.FOC.} iz stana.

no. Her_{STR.PRN.} are kicked.out from apartment

B’: (?)?Ne. *pro* IZBACILI_{CONT.FOC.} su **je**₁ iz stana.

no. *pro* kicked.out are her_{CL.} from apartment

‘No. They kicked her out of the apartment.’

The focus effect under consideration also holds if the antecedent is a null pronoun, as shown in (136) and (137) below:

(136) a. Juče **pro** je dobila odličnu ideju. **Ona** ima *uvijek* najbolje ideje!

yesterday *pro* is got excellent idea. She_{STR.PRN.} has always best ideas

b. Juče *pro* je dobila odličnu ideju. (??)*Pro* ima *uvijek* najbolje ideje!

yesterday *pro* is got excellent idea. *Pro* has always best ideas

‘Yesterday she₁ got an excellent idea. She₁ always has the best ideas!’

(137) a. Juče *pro* je dobila odličnu ideju. Studenti *nju* pitaju *uvijek* za mišljenje!

yesterday *pro* is got excellent idea. Students her_{STR.PRN.} ask always for opinion

b. Juče *pro* je dobila odličnu ideju. (??)Studenti *je* pitaju *uvijek* za mišljenje!

yesterday *pro* is got excellent idea. Students her_{CL.} ask always for opinion

‘Yesterday she₁ got an excellent idea. Students always ask her₁ for opinion!’

Note that focus in these cases licenses strong-over-weak choice only if the pronoun is co-referent with the subject of the preceding sentence; it does not do that if the pronoun refers back to the object. Thus, in (138), the pronoun coreferential with the dative object *Petar* can in principle be either weak or strong, whereas the pronoun coreferential with the subject is preferably strong, as shown in (129)-(135).

(138) a. Marija je Petru₁ juče dala pare. Ona *njemu*₁ *uvijek* daje pare!

Marija is Petar_{DAT.} yesterday gave money. She him_{STR.PRN.} always gives money

b. Marija je Petru₁ juče dala pare. Ona *mu*₁ *uvijek* daje pare!

Marija is Petar_{DAT.} yesterday gave money. She him_{CL.} always gives money

‘Marija gave money to Petar₁ yesterday. She always gives money to him₁!’

However, what seems to be relevant here is not the subject – object distinction, but the topicality of the antecedent. This is confirmed by the examples in (139) and (140). In (139), *Petar* is the subject of a passive sentence, hence an underlying object. Given that passive subjects are predominantly topics, the choice of the coreferential strong pronoun indicates that the topic status

of the antecedent is what is relevant here. In (140), the object coreferential with the strong pronoun is topicalized and the strong-over-weak effect is expectedly achieved.

(139) a. Petar₁ je juče nagrađen. Marija *njega*₁ *uvijek* nagrađuje!

Petar is yesterday rewarded. Marija him_{STR.PRN.} always rewards

b. Petar₁ je juče nagrađen. ??Marija *ga*₁ *uvijek* nagrađuje!

Petar is yesterday rewarded. Marija him_{CL.} always rewards

‘Petar₁ was rewarded yesterday. Marija always rewards him₁!’

(140) A: *How is Petar handling the financial crisis?*

B: [Petru₁]_{TOP} je Marija juče dala pare. Ona *njega*₁ *uvijek* nagrađuje!

to.Petar is Marija yesterday given money. She him_{STR.PRN.} always rewards

B’: [Petru₁]_{TOP} je Marija juče dala pare. ??Ona *ga*₁ *uvijek* nagrađuje!

to.Petar is Marija yesterday given money. She him_{CL.} always rewards

‘Petar₁ got money from Marija yesterday. She always rewards him₁!’

Importantly, note that the presence of focus on an element other than the pronoun or the antecedent can only license a strong coreferential form if the focalized element in such cases is in a clause that is higher than the coreferential element. This is shown in (141) and (142).

(141) Nataša₁ pravi sarmu cijeli dan. Jovan *uvijek* traži da *ona*₁ pravi sarmu

Nataša is.making dolmas all day. Jovan always asks that she_{STR.PRN.} makes dolmas
za Božić.

for Christmas

‘Nataša is making dolmas all day long. Jovan always asks that she makes dolmas for
Christmas.’

- (142) Nataša₁ pravi sarmu cijeli dan. **Ona*₁ traži da joj Jovan *uvijek* pomogne da
 Nataša is.making dolmas all day. She_{STR.PRN.} aks that her_{CL.} Jovan always helps that
 napravi sarmu.
 make dolmas
 'Nataša is making dolmas all day long. She always asks that Jovan helps her make dolmas.'

Note also that focus on another element is relevant only if the focalized element is in the same sentence as the pronoun. Compare in this regard (143) and (144) below: the strong form is allowed only in (143), not in (144), where the focalized adverb is in a separate sentence from the one containing the antecedent. The above discussion thus indicates that the pronoun needs to be in the scope of the focalized adverb for the relevant interpretation to be licensed.

- (143) Nataša₁ je juče dobila dobru ideju. *Ona*₁ *uvijek* ima najbolje ideje!
 Nataša is yesterday got good idea. She_{STR.PRN.} always has best ideas
 'Nataša got a good idea yesterday. She always has the best ideas!'
- (144) Nataša₁ *uvijek* ima najbolje ideje. *Pro*₁/*?*Ona*₁ je juče dobila nagradu za
 Nataša always has best ideas. *Pro*/she_{STR.PRN.} is yesterday got award for
 istraživački rad.
 research work
 'Nataša always has the best ideas. Yesterday she got an award for her research.'

In light of the above discussion, it can be concluded that the presence of focus on an element other than the pronoun (on the adverb, as in (130)-(131) and (141) and (143)), another argument, as in (132)-(133), or the verb, as in (134)-(135)) in a sentence containing the pronoun can license coreferential strong pronouns as long as the antecedent of the pronoun is a topic. This is not unexpected, given that the coreferential interpretation with topic antecedents yields a weak-

over-strong choice unless strong pronouns are associated with focus. The above observations further confirm the relevance of contrast (see also fn. 51) in cases where the antecedent requirements for strong pronouns are not met, i.e. when the antecedent is not new information focus. In fact, such cases can be taken to provide additional evidence for the current approach, where focus is crucial for the licensing of strong pronouns – they in fact add another way in which focus can facilitate coreferential readings of strong pronouns.⁵⁶

Returning to Patel-Grosz and Grosz’s (2017) approach regarding the distribution of personal and demonstrative pronouns in German (see Section 3.3.3 above), the data from SC given above suggest that the availability of the strong form in the relevant cases can in fact be unified with the analysis argued for here, where the crucial factor for licensing of strong coreferential pronouns is focus, rather than the pragmatic relevance (i.e. emotivity) of the strong-over-weak choice, as Patel-Grosz and Grosz suggest to be the case for the German demonstrative pronoun in examples like (128) above.

⁵⁶ As pointed out by W. Browne (p.c.), there may actually be a fourth way of licensing strong coreferential pronouns – namely, by focusing the entire sentence. Consider the example in (i) below, where *Milan* is the topic of the discourse. The strong pronoun coreferential with *Milan* may be allowed because the entire sentence containing the pronoun is focalized (note that the pronoun is not interpreted contrastively here). Expectedly, the coreferential weak form is degraded in this context, as shown in (iB’). I will, however, leave a more detailed investigation of such cases for future research.

(i) A: *Milan promised to help us build a tree house next week.*

B: [Znam ja **njega**]_{FOC}. Ta ljenština ništa džabe u životu nije uradila.
 know I him_{STR.PRN} that sloth nothing for.free in life not done

B’: ??[Znam **ga** ja]_{FOC}. Ta ljenština ništa džabe u životu nije uradila.
 know him_{CL} I that sloth nothing for.free in life not done

‘I know him very well. That sloth did nothing for free in his entire life.’

Finally, note that another important prediction of Patel-Grosz and Grosz's *Minimize DP!* principle given in (126) above is that the two types of pronouns should never be identical if they are both allowed in the same context. Namely, the principle is formulated in such a way that pronouns with more structure are disallowed in contexts where personal pronouns can be used unless they yield an additional pragmatic effect. However, there are cases where personal and demonstrative pronouns are equally acceptable without any difference in meaning, as in (145) (Patel-Grosz and Grosz 2017: 260).

(145) Maria hat einen netten Nachbarn₁. [*Er*₁ / *Der*₁] gießt im Sommer ihre Blumen.

Maria has a nice neighbor. he/DEM waters in summer her flowers

‘Maria has a nice neighbor₁. He₁ waters her flowers in the summer.

The example in (145) shows that, as long as the antitopicality constraint is not violated (i.e. when the antecedent is not a topic), demonstrative pronouns are allowed even though their use is of the same ‘referential relevance’ as the use of personal pronouns, which is crucially unexpected under *Minimize DP!*.⁵⁷ Patel-Grosz and Grosz speculate that the interchangeability of personal and demonstrative pronouns in cases like (145) might indicate that the antitopicality constraint for demonstrative pronouns is for some reason more rigid than the preference for ‘smaller’ pronouns. However, they leave open the question of how to accommodate this observation under *Minimize DP!*.

On the other hand, under the approach suggested here, examples like (145) can be easily accounted for. Namely, (145) shows that both types of pronouns in German seem to be allowed as

⁵⁷ Note that approaches like Mayol and Clark's (2010) that rely on communicative principles ruling out more „costly“ pronouns cannot easily explain the data in (145) either.

long as the antecedent represents new information. On the contrary, only personal pronouns can be coreferential with antecedents that are discourse topics, as shown in (127) above. Thus, given that German personal and demonstrative pronouns require different antecedents, on a par with SC weak and strong pronouns, it is expected that both types of pronouns are in principle possible with antecedents that are new information focus, but not with antecedents that are topics. As observed in (93) above, repeated here as (146), this is exactly the case with weak and strong pronouns in SC – both allow coreference with focus antecedents, whereas only the former can be co-indexed with antecedents that are topics.⁵⁸ An example parallel to German (145) is given in (147) below.

(146) A: *Who did Jovan want to go jogging with?*

B: Jovan₁ je želio da trči sa [Milanom₂]_{FOC}, ali je *on*_{2/*1/} *pro*_{1/?2} bio bolestan.

Jovan₁ is wanted that run with Milan₂ but is he_{STR.PRN./} *pro* been sick

‘Jovan₁ wanted to go jogging with Milan₂ but, he_{1/2} was sick.’

(147) a. Marija₁ ima finu komšinicu₂. *Ona*_{2/*1} joj zaliva cvijeće ljeti.

Marija₁ has nice neighbor_{FEM.} She her_{CL.} waters flowers during.summer

b. Marija₁ ima finu komšinicu₂. Zaliva *pro*_{?2} joj cvijeće ljeti.

Marija₁ has nice neighbor_{FEM.} waters *pro* her_{CL.} flowers during.summer

‘Marija₁ has a nice neighbor₂. She₂ waters her flowers during the summer.’

To sum up, in this section I demonstrated that the split behavior of German personal and demonstrative pronouns, at least in the data presented above, strongly resembles the weak/strong paradigm in SC. More specifically, it was shown that demonstrative pronouns in German parallel

⁵⁸ As discussed above, null pronouns in SC are most naturally interpreted as coreferential with antecedents that are topics, hence the marginal acceptability of coreference with the focus antecedent in (146)B and (147)B. However, I showed in (93) above that such interpretation is not excluded.

SC strong pronouns in that they both have the property of antitopicality and therefore can only be coreferential with antecedents that are new information. I concluded that the contrast in the acceptability of a demonstrative pronoun in (127), where the antecedent is a topic, and (145), where the antecedent represents new information, can in fact be accounted for in terms of properties of the antecedent, thus unifying the German paradigm from Patel-Grosz and Grosz (2017) with the analysis of SC pronouns argued for here.⁵⁹ In addition, an important observation was made on the basis of examples like (128) and (129), where coreferential demonstrative and strong pronouns in German and SC respectively are allowed in spite of the antitopicality ban being violated. I argued that the coreferential strong forms in (128) and (129) are licensed by contrastive focus on the adverb present in both (128) and (129) – contrary to Patel-Grosz and Grosz (2017) analysis, who propose that the strong form in (128) is pragmatically justified and hence predicted by *Minimize DP!* principle. This led me to conclude that the presence of focus more generally (i.e. not only on antecedents and pronouns) can license strong pronouns and lead to strong-over-weak choice.

3.5 Conclusion

In this chapter, I discussed discourse conditions on coreferential pronouns in intersentential anaphora and demonstrated that pronouns in such contexts are sensitive to the same information-structural properties of the antecedent as those observed in Chapter 2 with respect to possessor

⁵⁹ Note that Patel-Grosz and Grosz (2017) do not take into account the relevance of focus for licensing of strong forms; however, they observe that demonstrative pronouns, in contrast to personal pronouns, pick out antecedents that are not prominent (i.e. essentially, non-topic antecedents) for the pragmatic purpose of disambiguation, as the choice of a personal pronoun in the same context would yield coreference with the topic antecedent. Thus, the strong-over-weak choice is again justified on pragmatic grounds. However, observe that even though the antecedent in (145) above does count as a non-prominent antecedent, the choice of the demonstrative pronoun is not disambiguating in any sense – that is, the meaning of the utterance is such that the interpretation whereby *Maria* waters her own flowers is independently excluded.

binding cases. In other words, it was demonstrated that while weak/clitic pronouns are licensed by antecedents that function as discourse topics, strong coreferential pronouns cannot refer back to topic antecedents; instead, they are licensed by focus, in more than one respect. It was shown that strong coreferential forms are licensed by antecedents that function as new information focus (and if no such antecedent is available, strong forms are licensed if contrastively focused). This led me to conclude that, in contrast to weak/clitic pronouns, which are used to mark topic continuity in the discourse, strong pronouns perform a topic-shift function, i.e. they take focused antecedents and turn them into new topics. Furthermore, in this chapter I introduced an additional way in which focus is relevant for licensing strong coreferential forms. More precisely, I showed that focus on an element other than the pronoun can also license the strong coreferential form, with certain restrictions: namely, I showed that the focused element in such cases needs to be in the same sentence as the coreferential pronoun and in a clause that is higher than the clause containing the pronoun. The relevance of focus for licensing strong coreferential forms is summarized in (i) below (see also fn. 56).

(i) *A strong coreferential pronominal form is licensed:*

- (a) if its antecedent bears new information focus
- (b) if the pronoun is contrastively focused
- (c) if another element in the same sentence as the pronoun bears contrastive focus

Furthermore, I discussed the relevance of the above discourse conditions on different pronominal elements for issues relating to pronominal competition and suggested that the competition between weak and strong pronouns in the relevant cases can be thought of in terms of properties of antecedents, rather than the structural properties of pronouns themselves. Finally, it was demonstrated that the pattern observed in relation to the different discourse requirements of

weak and strong pronouns is also attested in German, where demonstrative and personal pronouns show the same antecedent restrictions as those observed for SC strong and weak pronouns respectively.

A question arises at this point, what is it about inherent properties of different types of pronouns that makes them sensitive to the topic-continuity vs. anti-topicality/topic-shift roles. I will offer here only a speculation regarding this issue. It has been suggested for a number of null elements that they undergo movement to the left periphery (see here Johnson 2001 for VP-ellipsis, Fujiwara 2022 and Mizuno 2022 for Japanese argument ellipsis, Bošković 2023 for null objects in imperatives). Mizuno (2022) in fact argues that elements undergoing argument ellipsis move to SpecTopP prior to undergoing ellipsis. These null elements obviously cannot be focalized or perform a topic-shift role; in a sense, then, they have the role of topic-continuity. I speculate that topic-continuity pronouns undergo similar type of movement that the null elements mentioned above undergo, in LF. Recall that the pronouns in question are weak pronouns. Typical examples of weak pronouns are clitics, whose defining property is in fact that they undergo movement (see, for example, Abels 2003, who appeals to this to explain the lack of P-complement clitics in many languages with clitics). I suggest that this mobility is a more general property, which makes clitics able to undergo the necessary LF movement suggested above, which strong pronouns cannot do. Strong pronouns then perform roles other than topic continuity. I will leave exploring the consequences of this speculative remark for future research.

CHAPTER 4

PRONOUNS IN CATAPHORA

4.1 Introduction

In this chapter, I will examine discourse conditions on the coreferential interpretation of pronouns in cataphora, i.e. contexts where the antecedent follows the pronoun. My point of departure will be Serbo-Croatian (SC) cases like (148) (from Despić 2011: 73), after which I will turn to cases like (149). I will first show that (148) is not a Condition C violation (cf. Despić 2011, 2013) by demonstrating that coreference can in fact be allowed in cases like (148) under specific discourse conditions (note that the ungrammaticality of (149) already suggests that (148) is not a Condition C violation, i.e. that it may be ruled out independently of Condition C, since (149) clearly cannot be a binding violation).

(148) **Njegov*₁ najnoviji film je zaista razočarao Kusturicu₁.

his latest movie is really disappointed Kusturica

[intended] ‘His₁ latest movie really disappointed Kusturica₁.’

(149) *Kad je *on*₁ došao kući, Jovan₁ je oprao suđe.

when is he_{STR.PRN.} came home, Jovan is washed dishes

[intended] ‘When he₁ came home, Jovan₁ washed the dishes.’

In order to formulate the precise conditions on cataphora, I will examine two well-known factors that constrain it – the discourse status of the co-referring items and their intrinsic content, and conclude, on a par with the discussion in the previous chapter, that the constraints on pronouns in cataphora can similarly be explained via certain discourse requirements on their antecedent. More

specifically, I will show that in configurations where pronouns linearly precede their antecedents, the latter must be established as aboutness phrases in the discourse in order for the coreferential interpretation of pronouns to be licensed.

4.2 Looking beyond the structure

It has been claimed in the literature that cases like (148) above, repeated here as (150), represent a Condition C violation due to the poorer structure of the nominal domain in SC (Despić 2011, 2013, Bošković 2008, 2012). As discussed in Chapter 2 (see Section 2.2), Bošković (2008, 2012) argues that the presence or absence of articles in a language is not merely a PF phenomenon but corresponds to an important structural difference. Thus, it is argued that languages fall into two main types – those in which the traditional noun phrase (TNP) includes a DP layer (e.g., English) and those in which it does not (e.g., SC). Then, the opposite behavior of SC and English with respect to coreference in cases like (150)-(151) below is captured under the assumption that DP is projected in English but not in SC: the coreference between the pronoun and the R-expression is legitimate only in the former as the DP projection prevents the pronoun from c-commanding the R-expression. On the other hand, in a DP-less language like SC the pronoun is able to c-command out of the subject phrase, hence the intended interpretation is ruled out in (150) by Condition C (Despić 2011, 2013).

(150) *_{[NP *Njegov*₁ [najnoviji film]]} je zaista razočarao Kusturicu₁.

his latest movie is really disappointed Kusturica

[intended] ‘His₁ latest movie really disappointed Kusturica₁.’

(151) _{[DP *His*₁ [latest movie]]} really disappointed Kusturica₁.

Under Despić's approach, it is predicted that cases like (150) would become grammatical once an element that projects functional structure (a quantifier or a numeral) is introduced, as was the case for Condition B in (50) vs. (51) above (see Section 2.3). That is, (150) should become grammatical if there is a QP preventing the pronoun from c-commanding out of the subject phrase. To this effect, Despić provides the example in (152), where the pronoun is embedded within a QP, so that there is no Condition C effect (Despić 2011: 70-71):

(152) [QP Pet/Mnogo [NP *njegovih*₁ [NP filmova]]] je proslavilo Kusturicu₁.

five/many his movies is made.famous Kusturica

‘Five/Many of his₁ movies made Kusturica₁ famous.’

However, there is reason to believe that the grammaticality of (152) should be interpreted with caution. Namely, it seems that there is something additional that facilitates the coreferential interpretation of the possessive pronoun and the R-expression in (152). More precisely, the intended interpretation in (152) seems to be ‘coerced’ by world knowledge – given that *Kusturica* is a film director (not an actor, for instance), the only movies that could make him famous are the ones that he himself directed. That the availability of the intended interpretation in (152) indeed derives from such contextual factors is confirmed by the fact that (152) becomes much worse once we eliminate the source of the confound, in particular, by changing the verb. Thus, in contrast to (152), the coreferential interpretation of the possessive pronoun is degraded in (153).

(153) *[QP Pet/Mnogo [NP *njegovih*₁ [NP filmova]]] je zaista razočaralo Kusturicu₁.

five/many his movies is really disappointed Kusturica

[intended] ‘Five/Many of his₁ movies really disappointed Kusturica₁.’

Note that the ungrammaticality of (153) cannot be reduced to a Condition C violation (on a par with (150) above) given that QP prevents the pronoun from c-commanding outside of the subject. This in turn demonstrates that constructions in question do not lend themselves easily to a Condition C-based structural account of the sort proposed by Despić. Namely, the fact that (150) and (153) are equally ungrammatical (although under Despić's assumption the former is a Condition C violation and the latter is not) casts doubt on the relevance of c-command, and Condition C, in these environments.

That (150) above is not a Condition C violation is further supported by data from Bulgarian. Bulgarian differs from most Slavic languages in that it has definite articles. It has been shown that Bulgarian patterns with DP languages like English, rather than NP languages like SC, with respect to NP/DP tests (see Bošković 2012 for additional discussion).⁶⁰ However, as Franks (2019a: 73) shows, examples like (154) below are ungrammatical in Bulgarian under the intended reading, which is surprising under Despić's account given that the structure of nominal phrases in Bulgarian is assumed to be identical to English. In other words, (154) should be grammatical since the possessive pronoun should not c-command out of the subject nominal, just as in English (151).

(154) *[_{DP} [_{DP} D [_{NP} *Negovijat*₁ [_{NP} papagal]]]] uxapa Ivan₁ včera.

his parrot bit Ivan yesterday

[intended] 'His₁ parrot bit Ivan₁ yesterday.'

The ungrammaticality of (154) would not be unexpected if the R-expression is c-commanded by the pronoun, but this goes contrary to common assumptions and the analysis of Bulgarian nominals

⁶⁰ See Talić (2017), for some complications, which, however, do not affect the point made here.

in Franks (2019a). Thus, it remains unclear why the presence of DP is not enough in Bulgarian, as opposed to English (cf. (151) and (154)).⁶¹

What is interesting is that it seems that even more structure is required in Bulgarian to avoid a Condition C violation – in particular, once a numeral is introduced into the structure, as in (155) below, the coreference between the possessive pronoun and the R-expression becomes allowed (adapted from Franks 2019a: 74). On a par with Despić’s claim that certain numerals and quantifiers in SC project a QP, as in (152) above, Franks assumes that the numeral in (155) projects an additional layer of structure, i.e. a QP.

(155) [QP Pette [DP [DP D [NP *negovi*₁ [NP papagali] uxapaxa Ivan₁ včera.

five his parrots bit Ivan yesterday

‘The five parrots of his₁ bit Ivan₁ yesterday.’

Note that, as Franks points out, the effect of introducing a QP should be immaterial in Bulgarian given that Bulgarian is a DP language and should therefore pattern with English. However, given

⁶¹ But see Oda (2022) for an approach where DP can be missing in Bulgarian even in the presence of a definite article.

that coreference is acceptable in (155), but not in (154), he concludes that more structure creates a blocking effect in (155), unlike (154) where DP is the highest projection.^{62,63}

Interestingly, the putative Bulgarian Condition C violation in (154) can be ameliorated with clitic doubling. Compare (154) above with a minimally different example in (156) (from Franks

⁶² However, it remains unclear why a DP projection does not have the same effect (though see fn. 61). Franks speculates that the contrast between (154) and (155) results from movement of the possessor. Namely, he suggests that prenominal possessors in Bulgarian move in LF to a position from which they c-command the entire clause, which in turn gives rise to a Condition C violation, as in (154). Such movement, as he argues, is blocked by quantifiers/numerals, as in (155). In such cases, coreference is grammatical as the possessive pronoun does not c-command the R-expression. He represents this schematically as in (i) (Franks 2019a: 77). He suggests that similar possessor movement applies in English, but only with quantified expressions, as proposed by Kayne (1994) (see fn. 16).

(i) *[_{DP} **possessive**_i D_[+DEF] [_{QP} **numeral/quantifier** [_{Q'} [_Q [_{NP} *t_i*...]]]]

However, as Franks also points out, the contrast between (154) and (155) still remains puzzling given that Condition B seems to be satisfied (at least, with clitic pronouns), as shown in (ii) below. Given that (154) is analyzed as a Condition C violation induced by possessor movement, it is expected that coreference in (ii) would likewise be ruled out as a result of the possessor moving to the edge of the DP and giving rise to a Condition B effect. However, coreference is perfectly grammatical in (ii). Franks offers two solutions: either the apparent lack of c-command in (ii) has to do with the position of the clitic (as opposed to the R-expression in (154)), or it depends on timing, with c-command calculated for the clitic before LF movement of the possessive.

(ii) Ivanovij₁at₇ papagal **go**₁ uxapa včera.

Ivan'_{DEF} parrot him_{CL} bit yesterday

'Ivan₁'s parrot bit him₁ yesterday.'

⁶³ However, note that while there is a good reason to posit a QP projection for certain numerals in many Slavic languages (the numerals in question assign genitive case to the following nominal), it is not immediately obvious that this should be the case in Bulgarian given its impoverished case system. (see Franks 1994, 1995, 1998, 2002, 2003, 2009, Pancheva 2021, for a detailed discussion of QPs in Slavic languages). Franks (2019b) argues that Bulgarian numerals project a QP as well despite the lack of the genitive on the nominal following the numeral (due to the impoverished case system of Bulgarian) – he claims that there is a special 'brojna forma' (i.e. 'count form') -a, which occurs on masculine nouns after numerals and is distinct from the regular -i or -ove plurals, which warrants a quantifier projection in Bulgarian as well (see Franks 2019b for a detailed discussion).

2019a, fn. 19): the grammaticality of (156) shows that clitic doubling somehow interacts with Condition C which, as Franks himself notes, is not easy to capture under the structural (i.e. Condition C) account of possessor binding that he also argues for, following Despić (2011, 2013).⁶⁴

(156) *Negovijat*₁ papagal *go*₁ uxapa Ivan₁ včera.

his parrot him_{CL}.bit Ivan yesterday

‘His₁ parrot bit Ivan₁ yesterday.’

Rudin (1997) observes that for clitic doubling to be licensed in Bulgarian, the doubled arguments must necessarily be aboutness phrases. Then, the contrast between (154) and (156) suggests that the aboutness property of the antecedent is relevant for licensing coreferential pronouns in cataphoric configurations. Furthermore, note that since examples like (154) above can be rescued by clitic doubling, it follows that (154) is in fact not a Condition C violation.

This is further supported by the fact that true Condition C violations in Bulgarian cannot be rescued by clitic doubling, as shown in (157)-(158) below (I. Krapova, p.c.) ((157) is a clear Condition C violation and (158) shows that clitic doubling cannot rescue Condition C violations).

(157) **Toi*₁ misli će papagalāt uxapa Ivan₁ včera.

he thinks that parrot_{DEF}.bit Ivan yesterday

[intended] ‘He₁ thinks that the parrot bit Ivan₁ yesterday.’

(158) **Toi*₁ misli će papagalāt *go*₁ uxapa Ivan₁ včera.

he thinks that parrot_{DEF}.him_{CL}.bit Ivan yesterday

⁶⁴ Note that while an approach like Oda’s (2022), where DP can be missing even when a definite article is present in an affixal article language like Bulgarian, can account for (154), it would have problems with example like (156).

[intended] ‘He₁ thinks that the parrot bit Ivan₁ yesterday.’

4.3 Discourse constraints on cataphora

I showed above that the ungrammaticality of coreferential pronouns in examples like SC (150) and Bulgarian (154) cannot easily be accounted for in a structural manner (i.e. by using the parametrized NP/DP approach as in Despić 2011, 2013 and Franks 2019a discussed in the previous section) in terms of Condition C.⁶⁵ Furthermore, the contrast between the examples in (154) and (156) from Bulgarian suggested that the coreferential interpretation of pronouns in cataphora becomes felicitous in the relevant cases if the referent of the antecedent represents an entity that the sentence is about.

This is further supported by the data from English in (159) and (160) (and the contexts given for each sentence below) (adapted from Kuno 1972: 303). The ungrammaticality of (160) cannot be due to Condition C since the pronoun is assumed not to c-command the R-expression (on a par with (151) above). Rather, the decisive factor here is the discourse status of the pronominal antecedent: while *John* in (159) can be interpreted as an aboutness phrase, this is not the case in (160) where *John* represents new information focus as it is the element corresponding to the *wh*-expression provided in the context question.⁶⁶

(159) *What about John and Mary? Who visited them?*

His₁ brother visited John₁, but no one visited Mary.

⁶⁵ I reiterate again that this does not argue against this overall approach at all.

⁶⁶ Note in this regard that constructions like *His₁ mother loves John₁* are acceptable under the intended interpretation if the stress falls on *mother* (M. Saito, p.c.). This is precisely the stress pattern that is observed if the context is set up in such a way that the referent of the R-expression is backgrounded information, as is the case in the grammatical (159) above.

(160) *Who visited who?*

***His**₁ brother visited John₁.

The same contrast in fact holds in SC, as shown in (161) and (162).

(161) *What about John and Mary? Who visited them?*

Njegov₁ brat je posjetio Jovana₁, ali niko nije posjetio Mariju.

his brother is visited Jovan_{ACC}, but no.one not visited Marija_{ACC}.

‘His₁ brother visited Jovan₁, but no one visited Marija.’

(162) *Who visited who?*

***Njegov**₁ brat je posjetio Jovana₁, ali niko nije posjetio Mariju.

his brother is visited Jovan_{ACC}, but no.one not visited Marija_{ACC}.

[intended] ‘His₁ brother visited Jovan₁, but no one visited Marija.’

Note that the acceptability of examples like (161), which is structurally parallel to (150) above, indicates that the ungrammaticality of (150) is not due to a Condition C violation – true Condition C violations in SC cannot be rescued by manipulating the relevant discourse factors, as shown in (163) (cf. (161)-(163)).

(163) *What about John? Who disappointed him?*

***On**₁ je razočarao Jovana₁.

he is disappointed Jovan_{ACC}.

[intended] ‘He₁ disappointed Jovan₁.’

Furthermore, in contrast to (150) and (153) above, classic Condition C violations like (163) cannot be improved by fronting the R-expression either. Compare (150) and (164) and (153) and (165): if

the R-expression in (150) and (153) is fronted, the sentences become grammatical, as shown in (164) and (165).

(164) [Kusturicu₁]_i je *njegov*₁ najnoviji film zaista razočarao *t_i*.

Kusturica_{ACC}. is his latest movie really disappointed *t*

‘His₁ latest movie really disappointed Kusturica₁.’

(165) [Kusturicu₁]_i je pet njegovih₁ filmova zaista razočaralo.

Kusturica_{ACC}. is five his movies really disappointed

‘Five of his₁ movies really disappointed Kusturica₁.’

However, fronting does not improve the violation in (163), as shown in (166) and (167).⁶⁷

(166) *Jovana₁ je *on*₁ razočarao.

Jovan_{ACC}. is he disappointed

[intended] ‘He₁ disappointed Jovan₁.’

(167) *[Pet Jovanovih₁ prijatelja]_i je *on*₁ razočarao *t_i*.

five Jovan’s friends is he disappointed

[intended] ‘He₁ disappointed five of Jovan₁’s friends.’

Reinhart (1986) proposed that cataphoric pronouns are in fact only possible if the antecedent is a sentence topic (the so-called *Topic-antecedent hypothesis*) (see also Williams 1997). As Reinhart (1986) points out, in English active clauses either the subject or the object can qualify as

⁶⁷ Despić (2011: 73-75) also observes that fronting the R-expression makes examples like (150) acceptable and that such movement does not ameliorate clear Condition C cases like (163) (Despić suggests that (166) is actually a Condition B violation since the R-expression c-commands the pronoun from the moved position; however, it is then expected that (167), where the R-expression is embedded within the QP, should be grammatical, contrary to fact).

the sentence topic (unless focused). This is, however, not the case in passive clauses where the promoted subject is the obligatory sentence topic, excluding the *by*-phrase. It is then predicted that a cataphoric pronoun can only take the passive subject as its antecedent. The prediction is borne out: the passive subject in (168) is the only available antecedent for the pronoun in the adjunct clause which, as Reinhart argues, follows from the fact that passive subjects are obligatorily topics.⁶⁸ (169) is then infelicitous because the only possible antecedent is within the *by*-phrase and therefore fails to satisfy the topic-antecedent requirement.

(168) When *he*₁ entered the room, Max₁ was greeted by Bill*₁.

(169) *When *she*₁ entered the room, Max was greeted by Amy₁.

Since in active sentences either subject or object can qualify as a topic, either *Max* or *Bill* can be the referents of the preceding pronoun in (170).

(170) When *he*_{1/2} entered the room, Max₁ greeted Bill₂.

Furthermore, given that I argued in Chapter 2 that stressed pronouns in English pattern with SC strong pronouns in cases of forward anaphora (i.e. when the antecedent precedes the pronoun) in that they cannot take topic antecedents (for a detailed discussion, see Section 2.4.3), it is then predicted that a stressed pronoun in English cannot be coreferential with the passive subject if the latter indeed functions as a topic. The prediction is borne out: as shown in (171) below, the pronoun can only refer to *Bill*, not to *Max*.

(171) Max₁ was greeted by Bill₂. HE_{2/*1} came in early.

⁶⁸ See also Reinhart (1981) where it is argued that passivization is one option (along left dislocation) of marking topics structurally and that the subject of a passive is a marked topic position (see also Calabrese 1986).

Another argument that passive subjects behave like topics comes from the data in (172)-(173) below. The sentence in (172) can be paraphrased as in (172)a, while the paraphrase in (172)b is infelicitous. This shows that, at the sentence level, only the passive subject can be interpreted as a topic. However, if the passive subject in (172) is stressed, the interpretation flips, as shown in (173)a,b.

(172) Ross is liked by Chandler.

(a) \approx As for Ross₁, he₁ is liked by Chandler.

(b) *As for Chandler₁, he₁ likes Ross / Ross is liked by him.

(173) ROSS is liked by Chandler (not Mary).

(a) \approx As for Chandler₁, he₁ likes Ross.

(b) *As for Ross, Chandler likes him.

I will now show that the antecedent of a cataphoric pronoun does not in fact have to be a sentence topic; rather, a cataphoric pronoun can be licensed either by a topic or by an aboutness element. Though certain types of topic phrases bear an [+aboutness] feature (in particular, the so-called Aboutness-shift topics (see Frascarelli 2007, Frascarelli & Hinterhölzl 2007, Bianchi & Frascarelli 2010)), it will be demonstrated that the antecedent of a cataphoric pronoun does not necessarily have to be a topic, as it can also represent a referent that is newly introduced in the discourse (cf. Karttunen 1968, Kuno 1972, 1975, Delisle 1973, Reinhart 1986, Williams 1997, a.o.). Thus, unlike a sentence topic, a phrase bearing the aboutness feature (typically a subject) does not necessarily need to be discourse-given (see Rizzi 2018).

Consider in this regard examples like (174) below. In (174), a cataphoric null pronoun is coreferential with the matrix subject (I leave strong pronouns aside for the moment). Importantly, note that (174) shows that coreference is possible in an all-new (What happened?) context where

the referent of the pronoun is not discourse-given. Note also that *pro* in (174) cannot be coreferential with the object *Marko*.⁶⁹

(174) *What happened?*

Kad se *pro*_{1/*2} napio, Jovan₁ je udario Marka₂.
 when *se*_{REF.CL.} *pro* got.drunk, Jovan is hit Marko_{ACC.}
 ‘When he_{1/*2} got drunk, Jovan₁ hit Marko₂.’

Rizzi (2018) argues that the subject position has the aboutness property that is crucial for anaphora resolution. As the halting site for A-movement, the subject position is a criterial position which, as Rizzi argues, should manifest the kind of scope-discourse interpretive properties which are typical of criterial positions. The ‘aboutness’ approach thus makes the subject position akin to the topic position in that they share the [+aboutness] property which is crucial for the interpretation of *pro*.

However, note that, unlike topics, aboutness subjects which serve as antecedents of *pro* do not have to be discourse-given, indicating that aboutness and givenness are not necessarily related (see also Lacerda 2020). Thus, when the subject is not given (in all-new contexts), it still functions as an antecedent of *pro*, as shown in (174) above. Furthermore, a *pro* can be coreferential with an

⁶⁹ *Pro* picks out a subject as its antecedent in forward anaphora as well. Calabrese (1986) discusses configurations like (i) below and shows that the null pronominal subject *pro* in Italian must pick a subject of the immediately preceding clause (Calabrese’s subject of predication or *thema*), while the strong pronoun *lui* preferentially takes an antecedent which is not a subject (Calabrese 1986:1):

(i) Quando Carlo₁ ha picchiato Antonio₂, *pro*_{1/*2}/lui_{2/*1} era ubriaco.

‘When Carlo₁ hit Antonio₂, *pro*_{1/*2} was drunk.’

antecedent in the subject position that is clearly not a topic, namely a quantified antecedent, as in (175) below.⁷⁰

(175) Kad *pro*₁ postane majka, svaka žena₁ se promijeni.

when *pro* becomes mother, every woman *se*_{REF.CL.} changes

‘When she₁ becomes a mother, every woman₁ changes.’

Furthermore, in SC, subjects can either be preverbal or postverbal (see fn. 36). Given that postverbal subjects typically carry (narrow) new information focus (see Stjepanović 1999), it is predicted that they cannot serve as antecedents of cataphoric pronouns. This is borne out: *pro* can only be coreferential with a preverbal subject, as in (176), not a postverbal one, as shown in (177) below.⁷¹

(176) Kad se *pro*₁ probudio, Jovan₁ je napravio kafu.

when *se*_{REF.CL.} *pro* woke.up, Jovan is made coffee

⁷⁰ There is strong empirical evidence that suggests that noun phrases containing quantificational determiners such as *every*, *most*, etc., cannot be topics: for example, they are unacceptable in topic-marking constructions such as German Left Dislocation and they cannot be combined with topic markers such as Japanese *wa* (see Endriss 2009 and Endriss and Hinterwimmer 2009 and the references cited therein for discussion).

⁷¹ Given that I argued that strong pronouns in forward anaphora require new information focus antecedents (see Chapter 2), it is predicted that the availability of coreferential interpretation of strong pronouns should improve with postverbal subjects, as opposed to preverbal ones. This is borne out, as shown in (96) and (97) above, repeated here in (i) and (ii).

(i) *Kad se Nedžad pojavio, on je bio pijan.

when *se*_{REF.CL.} Nedžad showed.up, he_{STR.PRN.} is been drunk
[intended] ‘When Nedžad₁ showed up, he₁ was drunk.’

(ii) ?Kad se pojavio Nedžad, on je bio pijan.

when *se*_{REF.CL.} showed.up Nedžad, he_{STR.PRN.} is been drunk
‘When Nedžad₁ showed up, he₁ was drunk.’

‘When he₁ woke up, John₁ made some coffee.’

(177) *Kad se *pro*₁ probudio, kafu je napravio Jovan₁.

when *se*_{REF.CL.} *pro* woke.up, coffee is made Jovan

[intended] ‘When he₁ woke up, Jovan₁ made some coffee.’

That the aboutness property of the antecedent is indeed crucial for licensing pronouns in cataphora is further supported by the data in (178) and (179) below. Since Chomsky (1976), it has been established that cataphora between a pronoun and a following R-expression is blocked when the R-expression bears focus (see also Williams 1997, Bianchi 2009). Thus, (178) is ruled out under the intended interpretation – the example becomes grammatical if the R-expression is destressed, as shown in (179). In (179), the verb preceding the R-expression is contrastively focused and coreference is allowed.⁷²

(178) **Njegova*₁ majka voli JOVANA₁.

his mother loves Jovan_{ACC}.

[intended] ‘His₁ mother loves Jovan₁.’

⁷² Chomsky’s (1976) original examples are given in (i)–(ii) below (Chomsky 1976: 344). Based on (i)–(ii), Chomsky (1976) argued for covert focus movement, maintaining that the disjoint reference effect in (i) is an instance of weak crossover parallel to (iii) below:

(i) *The woman he₁ loved betrayed JOHN₁.

(ii) The woman he₁ loved BETRAYED John₁.

(iii) *Who₁ does his₁ mother love?

The parallel would not actually extend to SC, since SC does not show a weak crossover effect in examples like (iii) (see Bošković 1997), as shown in (iv).

(iv) Koga₁ njegova₁ majka voli?

who his mother loves

‘Who₁ does his₁ mother love?’

(179) *Njegova*₁ majka VOLI Jovana₁.

his mother loves Jovan_{ACC}.

‘His₁ mother loves Jovan₁.’

What blocks coreference in cases like (178) is not focus placement per se, but the requirement that the antecedent of a cataphoric pronoun be an aboutness element. Consider the background context for (178)-(179): the focus placement in (178) leads the speaker to build a context forcing the interpretation whereby *John* represents new information focus (in this case, *Who does his mother love?*). Given that the R-expression in such a context is not an aboutness element, cataphoric interpretation of the pronoun is disallowed. Thus, (178) is ruled out for the same reason as (177) above. On the other hand, deaccenting the R-expression allows the hearer to accommodate it as a salient referent, which is evident from the fact that (179) generates the following focus alternatives: *His mother hates John, His mother adores John, etc.*

The above conclusions receive further support from an experimental study by Moulton et al. (2018). Moulton et al. (2018) show that the apparent blocking effect of focus as in (178) above does not in fact arise in contexts like (180)-(181) where the R-expression represents a salient referent. Crucially, note that in both (180) and (181), *John* is established as an aboutness topic in the discourse, hence the coreferential reading of the pronoun is allowed.

(180) A: As for John, who does his wife really love?

B: His₁ wife loves JOHN₁.

(181) A: As for John, I believe his wife hates him.

B: You are wrong: His₁ wife LOVES John₁.

(Moulton et al. 2018: 151)

4.4 Weak-over-strong choice in cataphora

I argued above that the antecedent of a cataphoric pronoun must bear an aboutness property in order for the intended interpretation to be available. However, a strong coreferential pronoun in cases like (149) above, repeated here as (182), is still ungrammatical, even if its referent is an aboutness element. The sentence is grammatical only if a *pro* is used, as in (183) (note that there is no c-command between the co-referring elements in (182), thus Condition C cannot be an issue).⁷³

(182) *What about John? What did he do when he came home?*

*Kad je *on*₁ došao kući, Jovan₁ je oprao suđe.

when is he_{STR.PRN.} came home, Jovan is washed dishes

[intended] ‘When he₁ came home, Jovan₁ washed the dishes.’

(183) Kad je *pro*₁ došao kući, Jovan₁ je oprao suđe.

when is *pro* came home, Jovan is washed dishes

‘When he₁ came home, Jovan₁ washed the dishes.’

Thus, the requirement that cataphoric pronouns have an aboutness antecedent cannot satisfactorily explain the contrast between (182)-(183). However, the preference for a weak/null pronoun in such cases can likewise be accounted for in terms of discourse-based antecedent requirements of different pronominal elements. Recall from Chapter 2 that strong pronouns in SC disallow coreference with topic-like elements and can only be coreferential with antecedents that represent

⁷³ Despić (2011) discusses examples like (182), and concludes that the ill-formedness of coreference in such cases is due to a pragmatic constraint – namely, he suggests that it is pragmatically odd to introduce a new referent with a strong pronoun and then refer to it with a proper name instead of a deficient pronoun (recall that under his approach, strong pronouns always introduce new referents) (Despić 2011: 273).

new information focus. Thus, unlike weak pronouns, strong pronouns disallow coreference with the given aboutness topics, as shown in (91) above, repeated here as (184). This in turn suggests that the ban on strong pronouns in cases like (182) above follows from independent discourse conditions on strong coreferential pronouns.

(184) A: *What about Jovan₁?*

B: Marija je čula da se *pro*₁ / ???*on*₁ preselio u Minhen.

Marija is heard that *se*_{REF.CL.} *pro*/ *he*_{STR.PRN.} moved in Munich.

‘Marija heard that he₁ moved to Munich.’

Note in this regard that, for the data considered here, no special competition module is needed to account for the fact that weak pronouns ‘outcompete’ the strong ones in cataphora. While the standard line of research regarding pronominal competition effects attempts to capture the distribution and interpretation of different classes of pronouns by postulating structural competition (see Section 3.3 for more details), the weak-over-strong choice in cataphora discussed here can be argued to follow from independent discourse conditions.

4.4.1 *The effect of focus*

Recall from Section 3.4 that the availability of the coreferential reading for strong pronouns in SC depends on focus in more than one way. Namely, I showed in Section 3.4 that the relevant interpretation is also allowed if a focalized adverb is present in the structure. The same holds for strong pronouns in cataphoric configurations like (182) above: namely, if a focalized adverb is present, the intended interpretation of the strong pronoun in cataphora becomes more readily available as well (cf. (185)-(186) below).

(185) *Kad je *on*₁ na poslu, Jovan₁ hoće da Milan pravi ručak.

when is he_{STR.PRN.} at work, Jovan wants that Milan makes lunch

[intended] ‘When he₁ is at work, Jovan₁ wants Milan to make lunch.’

(186) Pošto je *on*₁ *uvijek* na poslu, Jovan₁ hoće da Milan pravi ručak.

since is he_{STR.PRN.} always at work, Jovan wants that Milan makes lunch

‘Since he₁ is always at work, Jovan₁ wants Milan to make lunch.’

In (186), the contrastively focused adverb is in the same clause as (and adjacent to) the pronoun. However, the effect in question is found even if the adverb is a clause-mate with the antecedent, as in (187).⁷⁴

(187) Kad je *on*₁ na poslu, Jovan₁ *uvijek* traži da Milan pravi ručak.

when is he_{STR.PRN.} at work, Jovan always asks that Milan makes lunch

‘When he₁ is at work, Jovan₁ always asks that Milan makes lunch.’

This is also the case if the adverb is in a clause that contains neither the pronoun nor the antecedent, as in (188) (the adverb is also not adjacent to the pronoun in these cases).

(188) Kad je *on*₁ kod kuće, Marija *uvijek* traži da Jovan₁ pravi ručak.

when is he_{STR.PRN.} at home, Marija always asks that Jovan makes lunch

‘When he₁ is at home, Marija always asks that Jovan₁ makes lunch.’

⁷⁴ Recall that this was not the case with the corresponding example discussed in Chapter 3, where the antecedent precedes the pronoun (see example (144) in Section 3.4).

However, there is a requirement for examples like (188) – the adverb in examples like (188) cannot be in a lower clause than the coreferential element. This is shown in (189) (cf. (188)-(189)), where the relevant coreferential element is *Jovan* (see also (141)-(142) in Section 3.4).

(189) *Kad je *on*₁ na poslu, Jovan₁ traži da Marija *uvijek* pravi ručak.

when is he_{STR.PRN.} at work, Jovan asks that Marija always makes lunch

‘When he₁ is at work, Jovan₁ asks that Marija always makes lunch.’

The same requirement also holds for examples like (186): the adverb cannot be in a lower clause than the coreferential pronoun, as shown in (190).

(190) ?*Pošto *on*₁ hoće da Milan *uvijek* pravi večeru, Jovan₁ radi do kasno

since he_{STR.PRN.} wants that Milan always makes dinner, Jovan works until late

uveče.

at.evening

‘Since he₁ wants that Milan always makes dinner, Jovan₁ works until late in the evening.’

To sum up, in this section I showed that strong pronouns can exceptionally be licensed in cataphora only if a focalized adverb is present in the structure. However, the adverb in such cases cannot be in a lower clause than the coreferential element. The data discussed here provide additional evidence that focus is crucial for licensing of strong pronouns, as also argued for in Chapter 2 and 3 above.

4.5 Conclusion

In this chapter I showed that in order to state the conditions on cataphora, one crucially has to take into consideration the broader discourse setting. It was demonstrated that relevant

possessor-name sequences in SC are not instances of Condition C violation as standardly assumed, but that the effect in (150) follows from the properties of the antecedent. More specifically, my main claim was that the antecedent of a pronoun in cataphora must be an aboutness element for the relevant interpretation to be licensed. I showed that the apparent blocking effect of focus in cataphora, as in (178) above, derives from the requirement that the antecedent of a pronoun has the property of aboutness. I also discussed the well-known pronominal competition with respect to cataphora – I showed that different pronouns have different discourse antecedent requirements and concluded that the effect of competition in cataphora follows from these independent discourse conditions. Finally, it was demonstrated that the presence of contrastive focus can exceptionally license strong pronouns in cataphora, which was also shown to be the case in forward anaphora as well, as discussed in Chapter 3.

CHAPTER 5

CONCLUSION

5.1 Summary

In this dissertation, I examined coreferential possibilities for pronouns and proposed a new way of looking at the distribution of different pronominal elements (strong pronouns and weak (i.e. clitic and null) pronouns). It was demonstrated that in many cases, structural notions like c-command and distance, are not enough to capture co-indexing possibilities of pronouns. While previous research has generally ignored, or de-emphasized discourse conditions when discussing the binding possibilities for pronouns, I showed that discourse conditions under which both the antecedent and the pronoun are used also crucially matter, in fact in ways not noticed before.

I first showed that some cases from Serbo-Croatian that were previously analyzed as Condition B violations (i.e. cases involving possessor binding) in the literature have nothing to do with Condition B; rather, what is at work there are more general discourse effects that have nothing to do with binding conditions. It was shown that, in the relevant contexts, the (un)availability of coreferential interpretation of the pronouns correlates with specific information-structural properties of their antecedents, rather than the presence or absence of a c-command relation between the co-referring elements, as previously argued. By contrast, it was demonstrated that traditional Condition B configurations cannot be rescued by manipulating the relevant discourse factors. This led me to conclude that the grammaticality of constructions involving possessor binding is in fact independent of Condition B and that the possibility of coreference for pronouns

in the relevant cases cannot tell us anything about the categorial status of the nominal phrases containing the possessor, as previously argued.

Based on these observations, I established a number of new discourse-related constraints on coreferential readings of various pronominal elements. More precisely, it was demonstrated that while clitic pronouns show a strong preference for antecedents that are discourse topics, the grammaticality of coreferential strong pronouns was shown to depend on focus in more than one respect. To that effect, I demonstrated that strong pronouns require antecedents that are new information focus; if no focalized antecedent is available – that is, if the only available antecedent is a topic, a coreferential strong form is licensed if it is contrastively focused. Furthermore, I showed that contrastive focus can license the relevant interpretation even if placed on an element other than the pronoun itself.

I also showed that the above generalizations and conclusions extend to pronouns in English as well, which provided evidence that the strong pronoun vs. clitic distinction also applies in English. Furthermore, by comparing the coreferential possibilities of pronouns in English and Serbo-Croatian respectively, I showed that stress assignment crucially affects the interpretation of pronouns and their discourse status. This was further supported by the relevant binding data from Italian, which behaves like Serbo-Croatian with respect to the Nuclear Stress Rule (that is, unlike English, all phonologically realized material is visible to the NSR in Italian, and the main sentential stress falls on the rightmost element).

I then demonstrated that the coreferential possibilities for pronouns whose antecedents are located in a separate sentence are likewise subject to information-structural constraints which are identical to those observed in the contexts involving possessor binding. That is, I observed that the status of the antecedent in terms of discourse topicality crucially constrains the interpretive

possibilities for strong pronouns in Serbo-Croatian in cases of intersentential anaphora as well. More specifically, it was demonstrated that strong pronouns cannot be coreferential with antecedents that function as discourse/sentence topics; instead, they can only refer back to antecedents that represent new information focus. In that regard, they function as topic-shift devices, taking focused antecedents and turning them into new topics. By contrast, I showed that weak pronouns are most readily interpreted as coreferential with topic antecedents and thus serve to mark topic-continuity in the discourse. In addition, I demonstrated that the split between strong and weak pronouns in this respect parallels the use of demonstrative and personal pronouns in German.

I also discussed the relevance of discourse conditions for different types of pronouns for issues relating to pronominal competition and suggested that the competition between weak and strong pronouns in the relevant cases can actually be thought of in terms of properties of antecedents, rather than the structural properties of pronouns themselves.

Finally, I examined discourse conditions on the coreferential interpretation of pronouns in cataphora (i.e. contexts where the antecedent follows the pronoun) and showed that in order to state the conditions on cataphora, one crucially has to take into consideration the broader discourse setting. I first showed that relevant possessor-name sequences in Serbo-Croatian are not instances of Condition C violation as standardly assumed, but that the effect follows from the properties of the antecedent. More specifically, I argued that the antecedent of a pronoun in cataphora must be an aboutness element for the relevant interpretation to be licensed. In relation to that, I showed that the apparent blocking effect of focus in cataphora in fact derives from the requirement that the antecedent of a pronoun has the property of aboutness. I also discussed pronominal competition with respect to cataphora and concluded that the effect of competition in such configurations can

also be derived based on these independent discourse conditions. Finally, it was demonstrated that focus can exceptionally license strong pronouns in cataphora, on par with cases involving forward anaphora.

5.2 Extensions and open issues

In this section, I will discuss possible extensions of the proposals made in this dissertation and note some open issues for future research. I will start with some possible unifications of the focus conditions on the use of coreferential strong forms established in this work, and then turn to the potential issue of pronoun vs. anaphor competition, exploring how the tests I used in comparing when coreferential strong and weak pronominal forms are used fare in the contexts where both coreferential pronouns and anaphors are in principle possible, i.e. if the discourse tests I used throughout the dissertation can tell us anything about the pronoun vs. anaphor choice in such contexts.

5.2.1 The role of focus

The discussion in the previous chapters has shown that focus plays a role in licensing coreferential readings of strong pronouns, in fact in more than one way. It was observed that focus affects the interpretation of strong pronouns if placed on the antecedent, or the pronoun itself, or on another element inside the clause/sentence containing the pronoun, or over the entire clause/sentence. In all these cases except for the first one, where focus is on the antecedent, the presence of focus allows the strong pronoun to co-refer with a topical antecedent, just like a weak pronoun does. Below I will suggest several possibilities for unifying the role of focus for licensing the coreferential readings of strong pronouns in such cases.

One possibility is that in cases where focus is present on another element in a sentence, the strong pronoun in fact receives ‘secondary’ focus in order to avoid being backgrounded due to the focused element (given that everything but the focused element is typically backgrounded). This could then be unified with cases where the primary focus is on the pronoun itself, where the pronoun exhibits weak-like referential behavior as well (i.e. it behaves like a weak pronoun in that it allows coreference with topical antecedents).

Another possibility is that the intonational contour of the entire clause/sentence is relevant for the choice of the pronoun, the idea being that where focus lies, which affects the intonational contour of a sentence, may have an effect on what pronouns can be used in that some contours are less compatible with weak pronouns than others, as a result of which strong pronouns are exceptionally licensed in such cases, allowing coreference with topical antecedents. This line of reasoning could also be potentially applied to the case where the entire sentence is focused (see fn. 56 for the relevant example), namely, it could be that the resulting intonational contour in such cases is what licenses the choice of a strong pronoun coreferential with a topic antecedent over the weak one. Obviously, this is a rather vague suggestion. I will only outline here how the suggestion could provide an explanation for something that was not noted in the discussion above. In at least some cases where strong pronouns are preferred to clitics or null pronouns, clitic pronouns are actually less degraded than null pronouns in the presence of focus (in particular, in cases where focus is placed on an element other than the antecedent or the pronoun). This is the case in examples like (183)-(184) below, where the strong pronoun is preferred to null pronouns and clitics due to the presence of the focused adverb *only*. However, the null pronoun in (183)b is more degraded than the clitic in (184)b.

- (183) a. Marija je juče dobila odličnu ideju. **Ona** ima *uvijek* najbolje ideje!
 Marija is yesterday got excellent idea. She_{STR.PRN.} has always best ideas
- b. Marija je juče dobila odličnu ideju. (??)**Pro** ima *uvijek* najbolje ideje!
 Marija is yesterday got excellent idea. *Pro* has always best ideas
 ‘Marija got an excellent idea yesterday. She always has the best ideas!’
- (184) a. Marija je juče dobila odličnu ideju. Jovan **nju** pita *uvijek* za mišljenje!
 Marija is yesterday got excellent idea. Jovan her_{STR.PRN.} asks always for opinion
- b. Marija je juče dobila odličnu ideju. (??)Jovan **je** pita *uvijek* za mišljenje!
 Marija is yesterday got excellent idea. Jovan her_{CL.} asks always for opinion
 ‘Marija got an excellent idea yesterday. Jovan always asks her for opinion!’

The above difference in the acceptability of the null and clitic pronoun in (183)b and (184)b respectively may be because having an overt subject or not has an impact on sentence intonation overall – in other words, the suggestion is that null pronouns are more degraded in such cases than clitics because completely missing an overt argument affects sentence intonation in a more significant manner than having a clitic, i.e. replacing a strong pronoun by a complete absence of material at PF (i.e. *pro*) may still be more disruptive prosodically. At any rate, the above suggestions regarding the role of focus are speculative remarks regarding potential avenues for future research.

5.2.2 Discourse conditions on coreferential pronouns vs. anaphors

The discussion in the dissertation has focused on the comparison between strong and weak pronouns and the different information-structural conditions for the licensing of coreferential readings of these pronominal forms. However, there are environments where strong pronouns and anaphors are both in principle possible, where strong pronouns then appear to be in competition

with anaphors, not weak pronouns. A question then arises whether the relevant discourse notions discussed above affect the choice of a coreferential element in this case as well.

One relevant configuration involves certain prepositional phrases where both an anaphor and a pronoun seem to be allowed (Lees and Klima 1963, Lakoff 1968, Chomsky 1981, Koster 1985, Kuno 1987). This is, for instance, the case in examples like (185) from English, where either the pronoun or the anaphor can be used to refer back to the matrix subject (Chomsky 1981: 290-291). Given the assumption that the PP in this case introduces a separate binding domain, the coreferential pronoun does not induce a Condition B violation in (185) and the anaphor is often treated as exempt or logophoric in such cases given that it takes a non-local antecedent (for relevant discussion on exemption from Condition A and logophoric uses of anaphors, see Pollard and Sag 1992, Reinhart and Reuland 1993, Reuland 2011, Charnavel and Sportiche 2016, Charnavel 2020, among others).

(185) John₁ saw a snake near him₁/himself₁.

Despić (2011) discusses similar examples from SC, noting that the coreferential pronoun in examples like (186)a below is degraded because the reflexive anaphor form *sebe* is available, as shown in (186)b (I will be glossing the relevant form simply as ‘self’, the reader should bear in mind that it is an anaphor). The use of the coreferential pronoun therefore violates the competition principle (see fn. 19), which favors anaphors over pronouns hence the reflexive anaphor form outcompetes the pronoun in (186) (notice that only a strong pronoun is in principle possible here, since clitics cannot be complements of prepositions in SC, as discussed above in Chapter 3).

(186) a. ??Jovan₁ je vidio zmiju negdje blizu *njega*₁.

Jovan is seen snake somewhere near him_{STR.PRN}.

b. Jovan₁ je vidio zmiju negdje blizu *sebe*₁.

Jovan is seen snake somewhere near self

‘Jovan₁ saw a snake somewhere near him₁/himself₁.’

(Despić 2011: 65)

However, I will show that the choice of the coreferential element in cases like (186) is actually dependent on the discourse status of the antecedent, in fact in the manner discussed in the previous chapters with respect to strong vs. weak pronouns. Consider in this regard the contrast between (187) and (188):

(187) A: *What is going on? Who saw a snake?*

B: Mislim da je Jovan₁ vidio zmiju negdje blizu *njega*₁.

think_{1P.SG.PRES.} that is Jovan seen snake somewhere near him_{STR.PRN.}

B’: ??Mislim da je Jovan₁ vidio zmiju negdje blizu *sebe*₁.

think_{1P.SG.PRES.} that is Jovan seen snake somewhere near self

‘I think that Jovan₁ saw a snake somewhere near him₁/himself₁.’

(188) A: *What is going on with Jovan? Why is he so scared?*

B: ??Mislim da je Jovan₁ vidio zmiju negdje blizu *njega*₁.

think_{1P.SG.PRES.} that is Jovan seen snake somewhere near him_{STR.PRN.}

B’: Mislim da je Jovan₁ vidio zmiju negdje blizu *sebe*₁.

think_{1P.SG.PRES.} that is Jovan seen snake somewhere near self

‘I think that Jovan₁ saw a snake somewhere near him₁/himself₁.’

The above contrast shows that the pronoun is in fact preferred over the anaphor once the appropriate discourse conditions for licensing coreferential strong pronouns are met – that is, when the antecedent is new information focus, as in (187). However, if the antecedent is a topic, as in

(188), the coreferential pronoun is degraded (if not completely ruled out) and the anaphor *sebe* must be used. In that regard, the contrast between (187)-(188) shows that anaphors in SC in fact behave like weak pronouns in that they are licensed by topical antecedents (recall that weak pronouns are not in principle possible in this context).

The above discussion shows that the information-structural status of the antecedent is also crucial when strong pronouns are in competition with reflexive anaphors. Once the locality/distance factor is not at issue, anaphors are similar to weak pronouns in terms of the type of antecedents that they can take. In this respect, weak pronouns are then more similar to anaphors than to strong pronouns when it comes to the discourse conditions under which they are used. This in turn suggests that the differences between strong and weak pronouns discussed in the previous chapters should not be tied to the clitic status of the latter since they also hold here, and the anaphor is not a clitic.

There is, however, one context where cliticness seems to matter. In the previous chapters, I showed that contrastive focus on the pronoun can license the coreferential interpretation of strong forms. This is shown in (189) and (190) below. In (189), the pronoun is contrastively focused and in (190) it is associated with the focus particle *only* (note that both instantiations of focus – prosodically marked contrastive focus, as in (189), and focus associated with a focus-sensitive particle *only*, as in (190), are interpreted contrastively).

(189) A: *Did Jovan see a snake next to Marija?*

B: Ne, Jovan₁ je vidio zmiju pored **NJEGA**₁.

no, Jovan is seen snake next.to him_{STR.PRN}.

‘No, Jovan₁ saw a snake next to him₁.’

(190) A: *Did Jovan see a snake next to those campers as well?*

B: Ne, Jovan₁ je vidio zmiju samo pored **njega**₁.

No, Jovan is seen snake only next.to him_{STR.PRN}.

‘No, Jovan₁ saw a snake only next to him₁.’

Recall that this not possible with clitics, where an interfering factor is that as prosodically weak elements, clitics cannot be associated with focus in the first place (see also fn. 52). However, reflexive forms like *sebe* can in fact bear focus. Interestingly, this form can occur in examples like (189)-(190), as shown in (191)-(192).⁷⁵

(191) A: *Did Jovan see a snake next to Marija?*

B: Ne, Jovan₁ je vidio zmiju pored **SEBE**₁.

no, Jovan is seen snake next.to self

‘No, Jovan₁ saw a snake next to himself₁.’

(192) A: *Did Jovan see a snake next to those campers as well?*

B: Ne, Jovan₁ je vidio zmiju samo pored **sebe**₁.

no, Jovan is seen snake only next.to self

‘No, Jovan₁ saw a snake only next to himself₁.’

⁷⁵ Note that for cases like (189) and (191) above, some speakers slightly prefer the anaphor over the pronoun if *Jovan* is contrasted with another male individual, as is the case in (i) (note that unlike the pronoun *njega*, which is masculine, the reflexive anaphor *sebe* is not marked for gender).

(i) A: *Did Jovan see a snake next to Milan?*

B: Ne, Jovan₁ je vidio zmiju pored **SEBE**₁/?**NJEGA**₁.

no, Jovan is seen snake next.to self/him_{STR.PRN}.

‘No, Jovan₁ saw a snake next to himself₁/him₁.’

Given the parallelism between anaphors and weak pronouns with respect to discourse conditions noted above, this indicates that the reason why contrastive focus on the pronoun is possible only with the strong pronominal form, not on the weak pronominal form, in the cases discussed earlier is not because of discourse properties of the relevant elements, but because weak pronouns cannot be associated with contrastive focus, presumably for prosodic reasons. With the anaphor *sebe*, which otherwise behaves like a weak pronoun regarding discourse licensing, that issue does not arise and the anaphor is compatible with contrastive focus.

At any rate, putting the contrastive focus aside, the above facts indicate that in pronoun/anaphor competition contexts, anaphors are similar to weak pronouns in terms of the type of antecedents that they can take. In other words, weak pronouns are more similar to anaphors than to strong pronouns when it comes to the discourse conditions under which they are used.

The above observations regarding the choice between strong pronouns and anaphors also hold in cases where the competition is between a possessive pronoun and a possessive reflexive. On a par with examples like (186) above, the possessive pronoun *njegovog* is degraded in cases like (193) since the possessive reflexive anaphor *svog* is available in the same context. The use of the possessive pronoun in (193) is therefore argued to violate the competition principle since a reflexive form is also available (see Despić 2011).

(193) a. ??Jovan₁ je vidio zmiju pored ***njegovog***₁ prijatelja.

Jovan is seen snake next.to his friend

b. Jovan₁ je vidio zmiju pored ***svog***₁ prijatelja.

Jovan is seen snake next.to self's friend

‘Jovan saw a snake next to his friend.’

However, the choice of the coreferential element in examples like (193) is also dependent on the discourse status of the antecedent, in a similar manner as discussed above regarding non-possessive pronominal and reflexive forms. Consider in this regard the contrast between (194) and (195) below.

(194) A: *What is going on? Who saw a snake?*

B: (?)Jovan₁ je vidio zmiju pored **njegovog**₁ prijatelja.

Jovan is seen snake next.to his friend

B': Jovan₁ je vidio zmiju pored **svog**₁ prijatelja.

Jovan is seen snake next.to self's friend

'Jovan saw a snake next to his friend.'

(195) A: *What is going on with Jovan? Why is he so scared?*

B: ?*Jovan₁ je vidio zmiju pored **njegovog**₁ prijatelja.

Jovan is seen snake next.to his friend

B': Jovan₁ je vidio zmiju pored **svog**₁ prijatelja.

Jovan is seen snake next.to self's friend

'Jovan saw a snake next to his friend.'

When the antecedent is new information focus, as in (194), both the possessive pronoun and the possessive anaphor are acceptable, the latter being slightly preferred. However, if the antecedent is established as a topic, as in (195), the possessive pronoun is ruled out and a possessive reflexive form must be used to obtain the intended interpretation. This in turn means that the acceptability of the possessive pronoun in cases like (193) above in fact depends on the discourse conditions for pronominal licensing discussed here, rather than the existence of a competing, reflexive form.

Recall now that the structural approaches to pronominal competition attempt to derive the differences in the distribution and interpretation of strong and clitic pronouns by correlating them with differences in their internal structure, the basic idea being that the choice of a pronoun is governed by economy principles that favor structurally simpler pronouns.⁷⁶ For example, authors like Cardinaletti and Starke (1999) argue for an economy principle (*Minimize Structure*) which states that pronouns with less structure (i.e. deficient pronouns) must be used unless independently ruled out (i.e. if incompatible with the required interpretation, prosody, or syntactic environment).⁷⁷ For this reason, clitics are generally preferred over strong forms since they contain less structure. Independent evidence for differences in structural richness is often claimed to come from morphology, i.e. some pronouns are argued to contain larger structures than others based on the fact that this is reflected in the morphological make-up of the relevant elements. More

⁷⁶ There are other types of competition-based approaches that attempt to derive the distribution of pronouns, reflexives and R-expressions more generally. For instance, Safir (2004) proposes that the so-called Form to Interpretation Principle determines whether 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 (this approach has also been adopted by Despić (2011, 2013), see fn.19). The basic idea is that if a more dependent form than the one employed is available, then it outcompetes the less dependent form to represent the dependent identity reading (e.g. reflexive forms are argued to be more dependent than pronouns with respect to reference). However, note that the principle in question is essentially formulated as an interpretive constraint and is in that respect different from the structure-based approaches discussed above (i.e. whether a form is more or less dependent is not correlated with a structural difference).

⁷⁷ Note that for Cardinaletti and Starke (1999), weak and clitic pronouns are in fact two separate types of deficient pronouns, the former being less structurally deficient than clitics (note that null pronouns belong to this class too). The distinction is based on a number of asymmetries (e.g. unlike clitics, weak pronouns may have (lexical) word-stress).

They therefore argue for a three-way structural distinction in pronominal typology, ranked in terms of syntactic complexity in the following manner: strong pronouns > weak pronouns > clitics. The deficient form takes precedence over a strong form whenever possible (this being true for both weak and clitic pronouns); similarly, if a clitic and a weak form compete, the clitic takes precedence as it is a structurally simpler form.

specifically, the claim is that strong pronouns contain not only the structure associated with weak pronouns, but some additional projections as well (Wiltschko 1998, Cardinaletti & Starke 1999, Déchaine & Wiltschko 2002, Patel-Grosz & Grosz 2017, Stegovec 2023).⁷⁸ In fact, SC is a straightforward example of that when it comes to the morphological reflex of this relationship. Consider, for example, the third person singular accusative form of the masculine strong pronoun *on*, i.e. *njega*, and the corresponding clitic form *ga*. The two pronouns are transparently morphologically related, but the strong form contains one additional morpheme that is not present on the clitic, namely, *nje-*. The clitic form is therefore a subset of the strong form and the relevant morphological difference is assumed to be reflected in the structure of the two pronoun types. However, while the morphology of strong and clitic forms in SC may indicate that the latter may have less structure, that is not at all obvious in the case of strong pronouns vs. reflexive anaphors, where the relevant morphological relationship does not hold (compare *njega* vs. *sebe*). It is therefore not clear how an approach that relies on structural economy would account for cases where strong pronouns are in competition with anaphors (i.e. when the choice is not between a non-clitic and a clitic pronominal form).⁷⁹

⁷⁸ Béjar and Ćezáč (2003), for example, argue that the extra projection present only in the structure of strong pronouns is either a focus projection or a PP. However, the presence of the focus projection predicts that all strong pronouns should bear focus, which as, Cardinaletti and Starke (1999) show, does not hold. Furthermore, Stegovec (2020) observes that the PP option is also potentially problematic as Slovenian strong pronouns in the direct object position bear structural accusative (which is also the case in SC), which is incompatible with a null P Case-assigner.

⁷⁹ Regarding the structural make-up of anaphors, authors like Reinhart and Reuland (1993) and Reuland (2011) propose a distinction between two types of anaphors: those that are standardly referred to as long-distance anaphors (Dutch *zich*, Norwegian *seg*, Italian *sè*, etc.) and those that are viewed as local (English *himself*, Dutch *zichzelf*, Norwegian *seg selv*, etc.) (note, however, that both types of anaphors allow for logophoric uses) (cf. Déchaine & Wiltschko 2017, who propose a more fine-grained typology of reflexive forms). As observed by

Returning now to English, there is actually some speaker variation regarding (185) above, with some speakers preferring the pronoun and some the anaphor.⁸⁰ Once we bring in the context, one speaker (William Snyder) who prefers the pronoun in the basic example without context, given in (196) (with the judgment of this speaker), seems to have a similar context effect as observed in the parallel example from SC. While the speaker in question still prefers the coreferential pronoun overall, the acceptability of the anaphor is considerably improved once the antecedent is established as a topic, as in (197) (cf. (196), (197)). By contrast, the anaphor is very degraded if the antecedent represents new information focus, as in (198).⁸¹

Faltz (1977) and Pica (1985, 1987), when anaphors are complex expressions, they are universally local, whereas the long-distance type is universally simplex. Reinhart and Reuland (1993) refer to the latter as *SE* (simplex expression) anaphors and to the former as *SELF* anaphors (see also Reuland 2011). Some authors have argued that in some languages *SE* anaphors and pronouns form one group, distinguished from *SELF* anaphors. For example, it has been observed that in some languages *SE* anaphors and pronouns pattern similarly with respect to Condition B in that they cannot have a local antecedent (see, for example, Everaert 1986, 1991). Regarding the reflexive anaphor in SC in particular, authors like Despić (2011) compare the reflexive form *sebe* in SC with complex anaphors in languages like Norwegian (*seg selv*) or Japanese (*zibun-zisin*) since *sebe* is also strictly subject-oriented and local. Note also that the reflexive clitic *se* in SC is traditionally treated as a deficient/clitic form of *sebe*. However, Despić (2011) argues that this is incorrect and that the reflexive *sebe* does not in fact have a clitic counterpart, i.e. that *se* is not a clitic counterpart of *sebe* (see Despić 2011 for more details). In any case, I will leave comparing *sebe* and *se* from the current perspective for future work.

⁸⁰ Bryant (2022) observes that factors like verb meaning (i.e. whether the verb expresses change in location, perception, or possession) and spatial relation expressed by the preposition affect relative preferences between anaphors and pronouns in English locative prepositional phrases (see also Lees and Klima 1963, Hestvik 1991, Rooryck and Wyngaerd 2007). More precisely, she shows experimentally that anaphors are most natural in the expression of change in location and direct contact, while pronouns pattern in the opposite manner (note also that there are other factors that are argued to affect the anaphor choice such as perspective or point-of-view (see Pollard and Sag 1992, among others)).

⁸¹ One speaker who prefers the anaphor in the basic example (Robin Jenkins) has the context effect only if the antecedent is a topic (in which case the pronoun is completely ruled out and the anaphor is the only option), not if the antecedent is focus.

(196) John₁ saw a snake near him₁/??himself₁.

(197) A: *What about John? Why is he so scared all of a sudden?*

B: John₁ saw a snake near him₁/(?)himself₁.

(198) A: *What is going on? Who saw a snake?*

B: John₁ saw a snake near him₁/?*himself₁.

The same effect seems to hold in configurations where the coreferential elements are in separate clauses. The same speaker (William Snyder) reports that they have a preference for the coreferential pronoun in cases like (199) below.

(199) John₁ thinks that pictures of him₁/??himself₁ are on sale.

However, there seems to be a subtle effect of context in this case as well. More specifically, the acceptability of the anaphor in (199) is reported to be improved if the antecedent is a topic, as in (200) (the speaker notes that the anaphor in (200) might in fact be entirely acceptable, but emphasizes that these judgments are very delicate). By contrast, the anaphor is ruled out if the antecedent is new information focus, as in (201).⁸²

(200) A: *What about John? Why is he worried?*

B: John₁ thinks that pictures of him₁/(?)himself₁ are on sale.

(201) A: *Who thinks that pictures of him are on sale?*

B: John₁ thinks that pictures of him₁/?*himself₁ are on sale.

⁸² Note, however, that another speaker (Robin Jenkins) reports no effect of context at all in cases like (199). Just as in (185) above, this speaker has a strong preference for the anaphor in (199) as well (regarding this speaker, see also fn. 81).

Finally, note that for both William Snyder and Robin Jenkins, both the pronoun and the anaphor are equally acceptable if the antecedent is a quantifier phrase, as in (202).⁸³

(202) a. Every boy₁ saw a snake near him₁/himself₁.

b. Every boy₁ thinks that pictures of him₁/himself₁ are on sale.

The above observations suggest that English seems to pattern similarly to SC with respect to the choice between the pronoun and the anaphor in configurations like (185) (note that SC disallows long-distance reflexives, hence the relevant comparison between SC and English is not possible for cases like (199) above). Just like in SC, the acceptability of the anaphor in such cases seems to be sensitive to the topicality of the antecedent, suggesting that anaphors indeed pattern with weak pronouns with respect to the types of antecedents that they take (in contexts where they compete with strong pronouns). However, it should be noted that these judgments are rather delicate in English, which is possibly the reason for the observed interspeaker variation regarding the relevant contrasts.

At any rate, I leave a more detailed exploration of contexts where both anaphors and pronouns are in principle possible for future research.⁸⁴

⁸³ The opposite holds in SC regarding cases like (202)a. As shown in (i), the anaphor is preferred over the pronoun if the antecedent is a quantifier phrase.

(i) Svaki dječak₁ je vidio zmiju blizu ?*njega₁/sebe₁.

every boy is seen snake near him_{STR.PRN.}/self

‘Every boy saw a snake near him/himself.’

⁸⁴ There are many other cases that could be fruitfully considered from the current perspective, e.g. argument ellipsis in Japanese. It is well-known that *wh*-phrases cannot undergo argument ellipsis in Japanese (Sugisaki 2012, Sakamoto 2020). From the current perspective, this can be interpreted as indicating that the antecedent of an argument that undergoes ellipsis cannot be new information (in fact, it is likely that it must be a topic; for topicality of argument ellipsis from a different perspective see Mizuno 2022).

REFERENCES

- Abels, Klaus. 2003. *Successive cyclicity, anti-locality, and adposition stranding*. Doctoral dissertation, University of Connecticut, Storrs.
- Authier, J.-Marc. 1991. V-Governed Expletives, Case Theory, and the Projection Principle. *Linguistic inquiry*. Cambridge, MA: The MIT Press 22(4). 721–740.
- Béjar, Susana & Řezáč, Milan. 2003. Person Licensing and the Derivation of PCC Effects. In Pérez-Leroux, Ana Teresa & Roberge, Yves (eds.), *Romance Linguistics: Theory and Acquisition. Selected papers from the 32nd Linguistic Symposium on Romance Languages (LSRL), Toronto, April 2002* (Current Issues in Linguistic Theory), 49–62. Amsterdam: John Benjamins Publishing Company. (doi:[10.1075/cilt.244.07bej](https://doi.org/10.1075/cilt.244.07bej)) (<https://benjamins.com/catalog/cilt.244.07bej>)
- Bianchi, Valentina. 2009. A note on backward anaphora. *Rivista di Grammatica Generativa* 34, 3–34. (<https://www.semanticscholar.org/paper/A-note-on-backward-anaphora-Bianchi/242efda7d88f722fa13b111a037837b55fb49fb8>)
- Bianchi, Valentina & Frascarelli, Mara. 2010. Is Topic a Root Phenomenon. *Iberia* 2. 43–88. (<https://www.semanticscholar.org/paper/Is-Topic-a-Root-Phenomenon-Bianchi-Frascarelli/ac80fde08c9edb02147b804c999f4fb157df6377>)
- Bosch, Peter & Rozario, Tom & Zhao, Yufan. 2003. Demonstrative Pronouns and Personal Pronouns: German *der* vs *er*. *Proceedings of the 2003 EACL Workshop on The Computational Treatment of Anaphora*. (<https://www.aclweb.org/anthology/W03-2609>)

- Bosch, Peter & Umbach, Carla. 2007. Reference determination for demonstrative pronouns. *ZAS Papers in Linguistics* 48. 39–51. (Ed. Dagmar Bittner & Natalia Gargarina.)
(doi:[10.21248/zaspil.48.2007.353](https://doi.org/10.21248/zaspil.48.2007.353))
- Bošković, Željko. 1997. *The syntax of nonfinite complementation: an economy approach* (Linguistic Inquiry Monographs 32). Cambridge, Mass.: MIT Press.
- Bošković, Željko. 2001. *On the nature of the syntax-phonology interface: cliticization and related phenomena* (North-Holland Linguistic Series). 1st ed. Amsterdam: Elsevier.
- Bošković, Željko. 2002. A–movement and the EPP. *Syntax* 5(3). 167–218. (doi:[10.1111/1467-9612.00051](https://doi.org/10.1111/1467-9612.00051))
- Bošković, Željko. 2004. Be careful where you float your quantifiers. *Natural Language & Linguistic Theory* 22(4). 681–742. (doi:[10.1007/s11049-004-2541-z](https://doi.org/10.1007/s11049-004-2541-z))
- Bošković, Željko. 2006. Case Checking versus Case Assignment and the Case of Adverbial NPs. *Linguistic Inquiry* 37(3). 522–533. (doi:[10.1162/ling.2006.37.3.522](https://doi.org/10.1162/ling.2006.37.3.522))
- Bošković, Željko. 2008. What will you have, DP or NP? *Proceedings of NELS 37*, vol. 37, 101–114. Amherst: University of Massachusetts.
- Bošković, Željko. 2012. On NPs and clauses. *Discourse and grammar: from sentence types to lexical categories* (Studies in Generative Grammar, 112). Boston: De Gruyter Mouton.
- Bošković, Željko. 2023. Object drop in imperatives and the status of imperative subjects. Indiana University. (Presented at the Formal Approaches to Slavic Linguistics 32, Indiana University.)

- Bresnan, Joan. 1972. *Theory of complementation in English syntax*. Doctoral dissertation, Massachusetts Institute of Technology.
- Bryant, Shannon. 2022. Location, location, location: Anaphor selection in English locative prepositional phrases. *Proceedings of the Linguistic Society of America* 7(1). 5263. (doi:[10.3765/plsa.v7i1.5263](https://doi.org/10.3765/plsa.v7i1.5263))
(<https://journals.linguisticsociety.org/proceedings/index.php/PLSA/article/view/5263>)
- Büring, Daniel. 2005. Towards a Typology of Focus Realization. UCLA, ms.
- Calabrese, Andrea. 1986. Pronomina: Some Properties of the Italian Pronominal System. *MIT Working Papers in Linguistics*, vol. 8.
- Cardinaletti, Anna & Starke, Michal. 1999. The typology of structural deficiency: A case study of the three classes of pronouns. *Clitics in the languages of Europe* (Empirical Approaches to Language Typology. EUROTYP 20). Berlin: Mouton de Gruyter.
- Charnavel, Isabelle. 2020. *Locality and logophoricity: a theory of exempt anaphora* (Oxford Studies in Comparative Syntax). New York, NY: Oxford University Press.
- Charnavel, Isabelle & Sportiche, Dominique. 2016. Anaphor Binding: What French Inanimate Anaphors Show. *Linguistic inquiry*. One Rogers Street, Cambridge, MA 02142-1209, USA: MIT Press 47(1). 35–87. (doi:[10.1162/LING_a_00204](https://doi.org/10.1162/LING_a_00204))
- Chomsky, Noam. 1971. Deep structure, surface structure and semantic interpretation. *Semantics; an interdisciplinary reader in philosophy, linguistics and psychology*, 183–217. Cambridge: Cambridge University Press.

- Chomsky, Noam. 1973. Conditions on transformations. *A Festschrift for Morris Halle*. New York: Holt, Rinehart and Winston.
- Chomsky, Noam. 1976. Conditions on rules of grammar. *Linguistic Analysis* 2. 303–351.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Knowledge of Language: Its Nature, Origin, and Use*. Praeger.
- Chomsky, Noam. 2010. *Lectures on Government and Binding: the Pisa Lectures* (Studies in Generative Grammar [SGG] 9). 7th ed. reprint 2010. Berlin: De Gruyter Mouton. (doi:[10.1515/9783110884166](https://doi.org/10.1515/9783110884166))
- Chomsky, Noam & Halle, Morris. 1991. *The sound pattern of English* (Acls Humanities E-Book). Cambridge, Mass: MIT Press.
- Cinque, Guglielmo. 1993. A Null Theory of Phrase and Compound Stress. *Linguistic inquiry*. Cambridge, MA: The MIT Press 24(2). 239–297.
- Clements, George N. 1975. *The Logophoric Pronoun in Ewe: Its Role in Discourse*.
- Corver, Norbert. 1992. On deriving certain left branch extraction asymmetries: A case study in parametric syntax. *Proceedings of NELS 22*, vol. 22, 67–84.
- Déchaine, Rose-Marie & Wiltschko, Martina. 2002. Decomposing Pronouns. *Linguistic Inquiry*. The MIT Press 33(3). 409–442. (<https://muse.jhu.edu/pub/6/article/20088>)
- Déchaine, Rose-Marie & Wiltschko, Martina. 2017. A Formal Typology of Reflexives. *Studia Linguistica*. John Wiley & Sons, Ltd 71(1–2). 60–106. (doi:[10.1111/stul.12072](https://doi.org/10.1111/stul.12072)) (<https://onlinelibrary.wiley.com/doi/full/10.1111/stul.12072>)

- Delisle, Gilles. 1973. Discourse and backward pronominalization. Indiana University Linguistics Club, ms.
- Despić, Miloje. 2011. *Syntax in the absence of determiner phrase*. Doctoral dissertation, University of Connecticut, Storrs.
- Despić, Miloje. 2013. Binding and the Structure of NP in Serbo-Croatian. *Linguistic Inquiry* 44(2). 239–270.
- Drummond, Alex & Kush, Dave & Hornstein, Norbert. 2011. *Minimalist Construal: Two approaches to A and B* (Oxford Handbooks in Linguistics). Oxford: Oxford University Press.
- Endriss, Cornelia. 2009. *Quantificational Topics: A Scopal Treatment of Exceptional Wide Scope Phenomena* (Studies in Linguistics and Philosophy). 1. Aufl. Vol. 86. Dordrecht: Springer Netherlands.
- Ernst, Thomas. 2001. *The Syntax of Adjuncts* (Cambridge Studies in Linguistics 96). Cambridge: Cambridge University Press. (doi:[10.1017/CBO9780511486258](https://doi.org/10.1017/CBO9780511486258))
- Everaert, Martin. 1986. *The syntax of reflexivization*. Dordrecht, Holland, Riverton, U.S.A: Foris Publications.
- Everaert, Martin. 1991. Contextual determination of the anaphor/pronominal distinction. *Long Distance Anaphora*, 77–118. Cambridge University Press. (doi:[10.1017/CBO9780511627835.005](https://doi.org/10.1017/CBO9780511627835.005))

- Faltz, Leonard M. 1977. *Reflexivization: A Study in Universal Syntax*. Doctoral dissertation, University of California at Berkley (<https://search.proquest.com/docview/302872144?pq-origsite=primo>)
- Franks, Steven. 1994. Parametric properties of numeral phrases in Slavic. *Natural Language & Linguistic Theory* 12(4). 597–674. (doi:[10.1007/BF00992929](https://doi.org/10.1007/BF00992929))
- Franks, Steven. 1995. *Parameters of Slavic morphosyntax* (Oxford Studies in Comparative Syntax). New York: Oxford University Press.
- Franks, Steven. 1998. Parameters of Slavic morphosyntax revisited: A minimalist retrospective. *Formal Approaches to Slavic Linguistics: The Connecticut Meeting*, vol. 8, 134–165. Ann Arbor: Michigan Slavic Materials.
- Franks, Steven & King, Tracy Holloway. 2000. *A handbook of Slavic clitics* (Oxford Studies in Comparative Syntax). New York: Oxford University Press.
- Franks, Steven. 2002. A Jakobsonian Feature Based Analysis of the Slavic Numeric Quantifier Genitive. *Journal of Slavic Linguistics* 10(1/2). 145–184.
- Franks, Steven. 2003. Case Features, Markedness, and Quantification. *Investigations into Formal Slavic Linguistics. Contributions of the Fourth European Conference on Formal Description of Slavic Languages (FDSL IV)*, 579–600. Potsdam University.
- Franks, Steven. 2009. Case Assignment in Quantified Phrases. *HSK Slavische Sprachen: an International Handbook of their Structure, their History and their Investigation*, 355–368. De Gruyter Mouton. (doi:[10.1515/9783110214475.1.6.355](https://doi.org/10.1515/9783110214475.1.6.355))

- Franks, Steven. 2019a. Binding and Phasehood in South Slavic Revisited. *Studies in Polish linguistics* 14(2). 61–80. (doi:[10.4467/23005920SPL.19.014.11079](https://doi.org/10.4467/23005920SPL.19.014.11079))
- Franks, Steven. 2019b. A Bulgarian solution to the Slavic Q question?*. *Katerino Mome: Studies in Bulgarian Morphosyntax in Honor of Catherine Rudin*, 93–120. Bloomington: Slavica Publishers.
- Frascarelli, Mara. 2007. Subjects, Topics and the Interpretation of Referential Pro: An Interface Approach to the Linking of (Null) Pronouns. *Natural language and linguistic theory*. Dordrecht: Springer 25(4). 691–734. (doi:[10.1007/s11049-007-9025-x](https://doi.org/10.1007/s11049-007-9025-x))
- Frascarelli, Mara & Hinterhölzl, Roland. 2007. Types of topics in German and Italian. *On Information Structure, Meaning, and Form: Generalizations across languages* (Linguistik Aktuell), vol. 100, 87–116. Amsterdam: John Benjamins Publishing Company. (doi:[10.1075/la.100.07fra](https://doi.org/10.1075/la.100.07fra))
- Fujiwara, Yoshiki. 2022. *Movement approach to ellipsis*. Doctoral dissertation, University of Connecticut, Storrs.
- Gasser, Michael. 1983. Topic continuity in written Amharic narrative. *Topic Continuity in Discourse: A quantitative cross-language study*, 95–141. John Benjamins Publishing.
- Haiman, John & Munro, Pamela. 1983. Introduction. *Switch Reference and Universal Grammar* (Typological Studies in Language), vol. 2, 9–15. John Benjamins Publishing Company.
- Halupka-Rešetar, Sabina. 2011. *Rečenični focus u engleskom i srpskom jeziku*. Doctoral dissertation, University of Novi Sad, Novi Sad.

- Hestvik, Arild. 1991. Subjectless binding domains. *Natural Language & Linguistic Theory* 9(3). 455–496. (doi:[10.1007/BF00135355](https://doi.org/10.1007/BF00135355))
- Hinterwimmer, Stefan. 2015. A unified account of the properties of demonstrative pronouns in German. 61–107.
- Hinterwimmer, Stefan & Ebert, Cornelia. 2009. The interpretation of topical indefinites as direct and indirect aboutness topics. *Information Structure: Theoretical, Typological, and Experimental Perspectives*. Oxford: University Press.
(doi:[10.1093/acprof:oso/9780199570959.003.0005](https://doi.org/10.1093/acprof:oso/9780199570959.003.0005))
- Hirovuki, Ura. 1993. L-Relatedness and its Parametric Variation. *MIT Working Papers in Linguistics* 19. 377–399.
- Hornstein, Norbert. 2001. *Move! A minimalist theory of construal* (Generative Syntax 5). Malden, Mass: Blackwell.
- Hornstein, Norbert. 2007. Pronouns in a minimalist setting. *The copy theory of movement* (Linguistik Aktuell = Linguistics Today; v. 107), 351–385. Amsterdam: John Benjamins Pub.
- Huang, C. T. James. 1983. A Note on the Binding Theory. *Linguistic inquiry*. Cambridge, Mass: The MIT Press 14(3). 554–561.
- Huang, C.-T. James & Liu, C.-S. Luther. 2001. Logophoricity, attitudes and ziji at the interface. *Long-distance reflexives* (Syntax and Semantics), vol. 33, 141–195. San Diego, CA: Academic Press.

- Jackendoff, Ray. 1972. *Semantic interpretation in generative grammar* (Studies in Linguistics Series 2). Cambridge, Mass: MIT Press.
- Johnson, Kyle. 1991. Object Positions. *Natural language and linguistic theory*. Dordrecht: Kluwer Academic Publishers 9(4). 577–636. (doi:[10.1007/BF00134751](https://doi.org/10.1007/BF00134751))
- Johnson, Kyle. 2001. What VP Ellipsis Can Do, and What it Can't, But Not Why. *The Handbook of Contemporary Syntactic Theory*, 439–479. Oxford, UK: Blackwell Publishers Ltd. (doi:[10.1002/9780470756416.ch14](https://doi.org/10.1002/9780470756416.ch14))
- Jovović, Ivana. 2022a. Condition B and Other Conditions on Pronominal Licensing in Serbo-Croatian. *Linguistic inquiry* 1–20. (doi:[10.1162/ling_a_00475](https://doi.org/10.1162/ling_a_00475))
- Jovović, Ivana. 2022b. Conditions on cataphora. *NELS 52: Proceedings of the Fifty-Second Annual Meeting of the North East Linguistic Society: Volume 2*, 113–125. Amherst: GLSA.
- Kaiser, Elsi. 2011. Salience and contrast effects in reference resolution: The interpretation of Dutch pronouns and demonstratives. *Language and Cognitive Processes*. Routledge 26(10). 1587–1624. (doi:[10.1080/01690965.2010.522915](https://doi.org/10.1080/01690965.2010.522915))
- Kaiser, Elsi & Trueswell, John C. 2008. Interpreting pronouns and demonstratives in Finnish: Evidence for a form-specific approach to reference resolution. *Language and Cognitive Processes*. Routledge 23(5). 709–748. (doi:[10.1080/01690960701771220](https://doi.org/10.1080/01690960701771220))
- Kang, Jungmin. 2014. *On the absence of TP and its consequences: evidence from Korean*. Doctoral dissertation, University of Connecticut, Storrs.
- Karttunen, Lauri. 1968. Coreference and discourse. New York.

- Katz, Jonah & Selkirk, Elisabeth. 2011. Contrastive focus vs. discourse-new: Evidence from phonetic prominence in English. *Language (Baltimore)*. Washington, DC: Linguistic Society of America 87(4). 771–816. (doi:[10.1353/lan.2011.0076](https://doi.org/10.1353/lan.2011.0076))
- Kayne, Richard S. 1994. *The antisymmetry of syntax* (Linguistic Inquiry Monographs 25). Cambridge, Mass: MIT Press.
- Kayne, Richard S. 2005. Pronouns and Their Antecedents. *Movement and Silence*. New York: Oxford University Press. (doi:[10.1093/acprof:oso/9780195179163.003.0006](https://doi.org/10.1093/acprof:oso/9780195179163.003.0006))
- Kiss, Katalin É. 1998. Identificational Focus versus Information Focus. *Language (Baltimore)*. Washington: Linguistic Society of America 74(2). 245–273. (doi:[10.1353/lan.1998.0211](https://doi.org/10.1353/lan.1998.0211))
- Koizumi, Masatoshi. 1995. *Phrase structure in minimalist syntax*. Doctoral dissertation, Massachusetts Institute of Technology.
- Koster, Jan. 1985. Reflexives in Dutch. *Grammatical Representation* (Studies in Generative Grammar 22), 141–168. Dordrecht, Holland: Foris Publications.
- Kratzer, Angelika & Selkirk, Elisabeth. 2020. Deconstructing information structure. *Glossa (London)*. London: Ubiquity Press 5(1). 1–53. (doi:[10.5334/gjgl.968](https://doi.org/10.5334/gjgl.968))
- Kuno, Susumu. 1972. Functional Sentence Perspective: A Case Study from Japanese and English. *Linguistic inquiry*. The MIT Press 3(3). 269–320.
- Kuno, Susumu. 1975. Three perspectives in the functional approach to syntax. *Papers from the Parasession on Functionalism*, 276–336. Chicago: Chicago Linguistic Society.
- Kuno, Susumu. 1987. *Functional syntax: Anaphora, discourse and empathy*. Chicago: University of Chicago Press.

- Lacerda Ferreira, Renato Cesar. 2020. *Middle-field Syntax and Information Structure in Brazilian Portuguese*. Doctoral dissertation, University of Connecticut, Storrs.
- Lakoff, George. 1968. *Pronouns and Reference*. Indiana University Linguistics Club.
- Lasnik, Howard. 1989a. Remarks on Coreference 1976. In Lasnik, Howard (ed.), *Essays on Anaphora* (Studies in Natural Language and Linguistic Theory), 90–109. Dordrecht: Springer Netherlands. (doi:[10.1007/978-94-009-2542-7_4](https://doi.org/10.1007/978-94-009-2542-7_4))
- Lasnik, Howard. 1989b. *Essays on Anaphora* (Studies in Natural Language and Linguistic Theory). Vol. 16. Springer Netherlands.
- Lasnik, Howard. 1999. *Minimalist analysis* (Generative Syntax 3). Malden, Mass., USA: Blackwell.
- Lees, Robert & Klima, Edward. 1963. Rules for English Pronominalization. *Language*. Linguistic Society of America 39(1). 17–28. (doi:[10.2307/410759](https://doi.org/10.2307/410759))
- Marelj, Marijana. 2011. Bound-Variable Anaphora and Left Branch Condition. *Syntax (Oxford, England)*. Oxford, UK: Blackwell Publishing Ltd 14(3). 205–229. (doi:[10.1111/j.1467-9612.2011.00156.x](https://doi.org/10.1111/j.1467-9612.2011.00156.x))
- Mayol, Laia & Clark, Robin. 2010. Pronouns in Catalan: Games of partial information and the use of linguistic resources. *Journal of pragmatics*. Amsterdam: Elsevier B.V 42(3). 781–799. (doi:[10.1016/j.pragma.2009.07.004](https://doi.org/10.1016/j.pragma.2009.07.004))
- Mizuno, Teruyuki. 2022. Argument ellipsis as topic deletion. University of Connecticut, ms.
- Montalbetti, Mario. 1984. *After binding: On the interpretation of pronouns*. Doctoral dissertation, Massachusetts Institute of Technology.

- Moulton, Keir & Chan, Queenie & Cheng, Tanie & Han, Chung-hye & Kim, Kyeong-min & Nickel-Thompson, Sophie. 2018. Focus on Cataphora: Experiments in Context. *Linguistic Inquiry*. The MIT Press 49(1). 151–168. (<http://muse.jhu.edu/article/683702>)
- Oda, Hiromune. 2022. *The NP/DP-language distinction as a scale and parameters in minimalism*. Doctoral dissertation, University of Connecticut, Storrs. (<https://ling.auf.net/lingbuzz/006666>)
- Oehrle, Richard T. 1981. Common problems in the theory of anaphora and the theory of discourse. *Possibilities and Limitations of Pragmatics: Proceedings of the Conference on Pragmatics, Urbino, July 8-14, 1979*, 509–531. John Benjamins Publishing.
- Pancheva, Roumyana. 2021. Morphosyntactic variation in numerically-quantified noun phrases in Bulgarian. University of Southern California, ms.
- Patel-Grosz, Pritty & Grosz, Patrick G. 2017. Revisiting Pronominal Typology. *Linguistic Inquiry* 48(2). 259–297. (doi:[10.1162/LING_a_00243](https://doi.org/10.1162/LING_a_00243))
- Pica, Pierre. 1985. Subject, Tense and Truth: Towards a Modular Approach to Binding. *Grammatical Representation* (Studies in Generative Grammar), 259–292. Dordrecht, Holland: Foris Publications. (doi:[10.1515/9783112328064-012](https://doi.org/10.1515/9783112328064-012))
- Pica, Pierre. 1987. On the Nature of the Reflexivization Cycle. *Proceedings of the North East Linguistic Society 17*, 483–499. University of Massachusetts, Amherst: GLSA. (<https://philarchive.org/rec/PICOTN>)
- Pollard, Carl & Sag, Ivan A. 1992. Anaphors in English and the Scope of Binding Theory. *Linguistic inquiry*. Cambridge, MA: The MIT Press 23(2). 261–303.

- Postal, Paul M. 1976. On Raising, One Rule of English Grammar and Its Theoretical Implications. *MIT Press*. 一般財団法人 日本英文学会 53(1-2). 199–204.
(doi:[10.20759/elsjp.53.1-2_199](https://doi.org/10.20759/elsjp.53.1-2_199))
- Reinhart, Tanya. 1981. Pragmatics and Linguistics: an analysis of Sentence Topics. *Philosophica* 27. (doi:[10.21825/philosophica.82606](https://doi.org/10.21825/philosophica.82606))
- Reinhart, Tanya. 1983. Coreference and Bound Anaphora: A Restatement of the Anaphora Questions. *Linguistics and philosophy*. Dordrecht: D. Reidel Publishing Company 6(1). 47–88. (doi:[10.1007/BF00868090](https://doi.org/10.1007/BF00868090))
- Reinhart, Tanya. 1984. *Anaphora and semantic interpretation*. Chicago: University of Chicago Press.
- Reinhart, Tanya. 1986. Center and periphery in the grammar of anaphora. *Studies in the Acquisition of Anaphora*, vol. 1, 123–150. Dordrecht, Holland: D. Reidel Publishing Company.
- Reinhart, Tanya & Reuland, Eric. 1993. Reflexivity. *Linguistic inquiry*. Cambridge, MA: The MIT Press 24(4). 657–720.
- Reuland, Eric. 2001. Primitives of Binding. *Linguistic inquiry*. One Rogers Street, Cambridge, MA 02142-1209, USA: The MIT Press 32(3). 439–492.
(doi:[10.1162/002438901750372522](https://doi.org/10.1162/002438901750372522))
- Reuland, Eric. 2005. Agreeing to bind. *Organizing grammar: studies in honor of Henk van Riemsdijk* (Studies in Generative Grammar 86), 505–513. Berlin: Mouton de Gruyter.

- Reuland, Eric J. 2011. *Anaphora and language design* (Linguistic Inquiry Monographs 62). Cambridge, Mass: The MIT Press.
- Rizzi, Luigi. 2018. Subjects, topics and the interpretation of pro. *From Sounds to Structures*, 510–530. Berlin, Boston: De Gruyter. (doi:[10.1515/9781501506734-019](https://doi.org/10.1515/9781501506734-019))
- Roberts, Craige. 2011. Topics. *Semantics: An International Handbook of Natural Language Meaning* (Handbooks of Linguistics and Communication Science [HSK]), vol. 2, 1908–1934. De Gruyter Mouton. (doi:[10.1515/9783110255072.1908](https://doi.org/10.1515/9783110255072.1908))
- Rochemont, Michael S. & Culicover, Peter W. 1990. *English focus constructions and the theory of grammar* (Cambridge Studies in Linguistics 52). Cambridge [England]: Cambridge University Press.
- Rooryck, Johan & Wyngaerd, Guido Vanden. 2007. The Syntax of Spatial Anaphora. *Nordlyd* 34(2). (doi:[10.7557/12.112](https://doi.org/10.7557/12.112))
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural language semantics*. Dordrecht: Kluwer Academic Publishers 1(1). 75–116. (doi:[10.1007/BF02342617](https://doi.org/10.1007/BF02342617))
- Rooth, Mats. 1996. On the Interface Principles for Intonational Focus. *Proceedings from Semantics and Linguistic Theory* 6. 202–. (doi:[10.3765/salt.v6i0.2767](https://doi.org/10.3765/salt.v6i0.2767))
- Rooth, Mats. 1985. *Association with focus (Montague grammar, semantics, only, even)*. Doctoral dissertation, University of Massachusetts, Amherst.
- Rudin, Catherine. 1997. AgrO and Bulgarian pronominal clitics. *Formal Approaches to Slavic Linguistics (FASL)* 5, 224–252. Ann Arbor: Michigan Slavic Publications.

- Runić, Jelena. 2014. *A New Look at Clitics, Clitic Doubling, and Argument Ellipsis: Evidence from Slavic*. Doctoral dissertation, University of Connecticut, Storrs.
- Safir, Ken. 2004. *The Syntax of Anaphora* (Oxford Studies in Comparative Syntax). New York: Oxford University Press. (doi:[10.1093/acprof:oso/9780195166132.001.0001](https://doi.org/10.1093/acprof:oso/9780195166132.001.0001))
- Sakamoto, Yuta. 2020. *Silently Structured Silent Argument*. John Benjamins Publishing Company.
- Schwarzschild, Roger. 1999. GIVENNESS, AVOIDF AND OTHER CONSTRAINTS ON THE PLACEMENT OF ACCENT*. *Natural Language Semantics* 7(2). 141–177. (doi:[10.1023/A:1008370902407](https://doi.org/10.1023/A:1008370902407))
- Selkirk, Elisabeth O. 2008. Contrastive focus, givenness and the unmarked status of “discourse-new.” *Acta linguistica Hungarica*. Akadémiai Kiadó 55(3–4). 331–346. (doi:[10.1556/ALing.55.2008.3-4.8](https://doi.org/10.1556/ALing.55.2008.3-4.8))
- Sells, Peter. 1987. Aspects of Logophoricity. *Linguistic inquiry*. Cambridge, MA: The MIT Press 18(3). 445–479.
- Sichel, Ivy & Wiltschko, Martina. 2021. The logic of Person markedness: Evidence from pronominal competition. *Language (Baltimore)*. Washington: Linguistic Society of America 97(1). 42–71. (doi:[10.1353/lan.2021.0001](https://doi.org/10.1353/lan.2021.0001))
- Stegovec, Adrian. 2019. Crop to fit: Pronoun size and its relation to strict/sloppy identity and animacy. New York City. (Presented at the Linguistic Society of America, New York City.)

- Stegovec, Adrian. 2020. Taking case out of the Person-Case Constraint. *Natural language and linguistic theory*. Dordrecht: Springer Netherlands 38(1). 261–311. (doi:[10.1007/s11049-019-09443-0](https://doi.org/10.1007/s11049-019-09443-0))
- Stegovec, Adrian. 2023. All shapes and sizes: Towards a more fine-grained approach to pronoun typology and competition effects. Bloomington, Indiana. (Presented at the Formal Approaches to Slavic Linguistics 32, Bloomington, Indiana.)
- Stjepanović, Sandra. 1999. *What do second-position cliticization, scrambling and multiple wh-fronting have in common?* Doctoral dissertation, University of Connecticut, Storrs.
- Stjepanović, Sandra. 2003. A word order paradox resolved by copy deletion at PF. *Linguistic variation yearbook*. John Benjamins Publishing Company 3(1). 139–177. (doi:[10.1075/livy.3.07stj](https://doi.org/10.1075/livy.3.07stj))
- Sugisaki, Koji. 2012. A Constraint on Argument Ellipsis in Child Japanese. *Proceedings of the 36th annual Boston University Conference on Language Development (BUCLD 36)*, 555–567. Somerville, MA: Cascadilla Press.
- Szabolcsi, Anna. 1981. The Possessive Construction in Hungarian: A Configurational Category in a Non-configurational Language. *Acta linguistica Academiae Scientiarum Hungaricae*. AKADÉMIAI KIADÓ 31(1/4). 261–289.
- Szabolcsi, Anna. 1983. The Possessor That Ran Away From Home. *Linguistic review* 3(1). (doi:[10.1515/tlir.1983.3.1.89](https://doi.org/10.1515/tlir.1983.3.1.89))
- Szabolcsi, Anna. 1992. Subordinators: articles and complementizers. *Approaches to Hungarian* 4, 123–137. Szeged: József Attila University.

- Takahashi, Masahiko. 2013. Phases and the structure of NP: A comparative study of Japanese and Serbo-Croatian. *Proceedings of Formal Approaches to Slavic Linguistics* 21, 359–372. Ann Arbor: Michigan Slavic Publications.
- Talić, Aida. 2017. *From A to N and back: functional and bare projections in the domain of N and A*. Doctoral dissertation, University of Connecticut, Storrs.
- Talmy Givón. 1983. Topic continuity in discourse: An introduction. *Topic Continuity in Discourse: A quantitative cross-language study*, vol. 3, 1–43. John Benjamins Publishing.
- Umbach, Carla. 2004. On the notion of contrast in information structure and discourse structure: Special Issue on Contrast. *Journal of semantics (Nijmegen)*. Oxford: University Press 21(2). 155–175.
- van Kampen, Jacqueline. 2008. Anaphoric pronouns for topic devices: theoretical claims and acquisitional evidence. 67–76.
- Williams, Edwin. 1997. Blocking and Anaphora. *Linguistic inquiry*. Cambridge, MA: The MIT Press 28(4). 577–628.
- Wiltschko, Martina. 1998. On the Syntax and Semantics of (Relative) Pronouns and Determiners. *The journal of comparative Germanic linguistics*. Dordrecht: Kluwer Academic Publishers 2(2). 143–181. (doi:[10.1023/A:1009719229992](https://doi.org/10.1023/A:1009719229992))
- Zlatić, Larisa. 1997. *The structure of the Serbian noun phrase*. Doctoral dissertation, University of Texas.

- Zribi-Hertz, Anne. 1989. Anaphor Binding and Narrative Point of View: English Reflexive Pronouns in Sentence and Discourse. *Language (Baltimore)*. Washington, DC: Linguistic Society of America 65(4). 695–727. (doi:[10.2307/414931](https://doi.org/10.2307/414931))
- Zubizarreta, Maria Luisa. 1998. *Prosody, focus, and word order* (Linguistic Inquiry Monographs 33). Cambridge, Mass: MIT Press.