

SYNTACTIC AND SEMANTIC PERSPECTIVES ON
FIRST CONJUNCT AGREEMENT IN RUSSIAN

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Bonnie Krejci

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I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

Beth Levin, Primary Adviser

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

Vera Gribanov, Co-Adviser

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

Boris Harizanov

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

Paul Kiparsky

Approved for the Stanford University Committee on Graduate Studies.

Stacey F. Bent, Vice Provost for Graduate Education

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Abstract

This dissertation is an investigation into the syntax and lexical semantics of the phenomenon of first conjunct agreement (FCA) as it occurs in Russian. An in-depth look at this phenomenon sheds light not only on straightforwardly related problems like the structure of conjunction and its interaction with predicate-argument agreement, but also on questions of broader significance, such as word order variation and argument realization.

Because FCA occurs only in non-canonical word orders—when the apparently conjoined noun phrases are postverbal—it is necessary to determine how such orders arise in Russian. Word order variation has proved a perennial problem in the study of Slavic languages, going back to at least the Prague School in the 1930s. This dissertation investigates the derivational paths taken by nominative arguments in the Russian clause, presenting a novel account of subject-final word orders (VS, OVS, and others). The key to understanding such orders is that nominative marked subjects must occupy the specifier of TP, even when they are pronounced postverbally. While this kind of “covert movement” is well known within the domain of *A'*-movement, it is less often proposed within the domain of *A*-movement (Polinsky & Potsdam, 2013); the behavior of covertly moved arguments can help elucidate the roles of, and the relationship between, syntax and the phonological component.

In the realm of lexical semantics, FCA in Russian comes to bear on the problem of variable unaccusative/unergative syntactic behavior, and, even more generally, the problem of argument realization. FCA in Russian has been characterized as occurring only when the verb is unaccusative or passive (Babyonyshev, 1996)—in other words, when the apparently conjoined noun phrases are

introduced as first sisters to the verb. However, this generalization is not absolute; under specific circumstances, FCA can also be found in sentences in which the verb is typically considered unergative. This pattern is not limited to FCA but occurs with the genitive of negation construction in Russian as well, and it is paralleled across languages by other constructions that are said to be sensitive to unaccusativity. This dissertation presents a solution to the general problem of variable unaccusative/unergative behavior by proposing a model of the relationships among happenings in the real world, verb meaning, and syntactic representation. The model shows how a single verb root can come to be associated with either unaccusative or unergative syntactic behavior, depending on the context in which it is used—that is, depending on the type of event it is used to describe. In Russian, a purportedly unergative verb can come to be in an unaccusative syntactic structure when it is used in the description of an existential event; this syntactic structure is compatible with FCA and the genitive of negation.

Finally, FCA in Russian has syntactic properties that differ from those of conjunct-sensitive agreement phenomena in other languages—most notably, it is incompatible with certain sentential elements that presuppose the semantic plurality of the postverbal noun phrases, and, relatedly, it is unacceptable in contexts in which the noun phrases must form a single syntactic constituent. To account for such properties, the analysis presented here holds that FCA in Russian arises only when two verb phrases are immediately conjoined; thus, it differs from languages such as Arabic and Hindi-Urdu, in which two noun phrases are immediately conjoined. Taken together with the analysis of the potential syntactic positions of postverbal nominative arguments, this account of FCA sheds light on constraints on movement out of a coordinated structure, i.e. the Coordinate Structure Constraint (Ross, 1967): under this analysis, the nominative argument with which the verb displays agreement moves covertly out of the coordinated structure to the specifier of TP, in apparent violation of part of the Coordinate Structure Constraint. The analysis presented here suggests that the phenomenon descriptively referred to as FCA should receive distinct analyses across languages, accounting for variation in its distribution crosslinguistically.

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List of abbreviations

1	first person
2	second person
3	third person
A=G	accusative syncretic with genitive
ACC	accusative
ADV	adverbial
DAT	dative
DO	direct object
EPP	Extended Projection Principle
F	feminine
FCA	first conjunct agreement
FUT	future
GEN	genitive
INF	infinitive
INST	instrumental
IO	indirect object
IPFV	imperfective
LCA	last conjunct agreement
LF	Logical Form

LOC	locative
M	masculine
N	neuter
NEG	negative
NOM	nominative
NUM	number
O	object
PF	Phonological Form
PL	plural
PRF	perfective
PST	past
PSV	passive
PTCP	participle
Q	question particle
RNC	Russian National Corpus
S	subject
SBJV	subjunctive
SG	singular

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Chapter 1

Introduction

This dissertation is an investigation into the syntax and lexical semantics of the phenomenon of first conjunct agreement (FCA) as it occurs in Russian. FCA occurs when two or more apparently conjoined noun phrases appear postverbally and the verb agrees with the first noun phrase, as in (1).

- (1) *Na stole stojal stakan i pepel'nica.*
on table stood.MSG glass.MSG.NOM and ashtray.FSG.NOM
'On the table stood a glass and an ashtray.'

FCA—and conjunct-sensitive agreement more generally—is a well documented phenomenon across diverse languages that has received a number of analyses;¹ in Russian, analyses of the phenomenon include Babyonyshev (1996), Harves (2003), Bošković (2010), and Glushan (2013). In accounting for conjunct-sensitive agreement, these analyses provide insight into the structure of coordination, the mechanism underlying predicate-argument agreement, and the syntactic structures of the individual languages under consideration.

The particular distribution of FCA in Russian makes it an ideal testing ground for investigations

¹ See McCloskey (1986) for Irish, Aoun et al. (1994, 1995) and Munn (1999) for dialects of Arabic, Sobin (1997, 2014) and Schütze (1999) for English, Munn (1999) for Brazilian Portuguese, Doron (2000) for Biblical Hebrew, Camacho (2003) for Spanish, Van Koppen (2005, 2012) for dialects of Dutch, Benmamoun et al. (2009) and Bhatt & Walkow (2011) for Hindi-Urdu, Bošković (2009, 2010) for Serbo-Croatian, and Benmamoun et al. (2009) for Tsez

into syntax and lexical semantics, both in the context of Slavic linguistics and more generally. First, because FCA occurs only when the apparently conjoined noun phrases are postverbal, it is necessary to determine how subject-final orders arise to begin with. Determining why FCA occurs only in such contexts forces me to confront the larger issue of variable word order, which has proved a perennial problem in the study of Slavic languages. Second, FCA in Russian has been characterized as occurring only when the verb is syntactically unaccusative or passive (Babyonyshev, 1996)—in other words, when the apparently conjoined noun phrases are introduced internal to the verb phrase. However, this generalization is not absolute; under specific circumstances, FCA can also be found in sentences in which the verb is typically considered syntactically unergative. This pattern is not limited to FCA but occurs with the genitive of negation construction in Russian as well, and it is paralleled across languages by other constructions that are said to be sensitive to unaccusativity. Thus, analyzing the distribution of FCA leads me to investigate the problem of variable unaccusative/unergative behavior across languages, a problem that itself provides insight into how arguments are realized within a syntactic structure. Finally, FCA in Russian is incompatible with certain sentential elements that presuppose the semantic plurality of the postverbal noun phrases and, relatedly, it is unacceptable in contexts in which the noun phrases must form a single syntactic constituent. In accounting for these limitations, I analyze the structure of coordination, the size of coordination in conjunct-sensitive agreement phenomena, and the interaction between conjunction and predicate-argument agreement.

1.1 Basic word order and agreement patterns in Russian

In order to understand the distribution of FCA and how its analysis informs the larger issues raised above, it is first necessary to understand the basic properties of a typical Russian sentence. In this section, I briefly outline the basic word order and agreement patterns in Russian.

The typical, or discourse-neutral, transitive Russian sentence occurs in subject-verb-object (SVO) word order, as shown in (2).

- (2) *Anna kupila knigi.*
 Anna.FSG.NOM bought.FSG books.FPL.ACC
 ‘Anna bought books.’

In (2), the word order is SVO; the subject² appears in the nominative case, the object appears in the accusative case, and the verb bears feminine singular agreement to match the gender and number of the nominative subject.

Russian, among other Slavic languages, is well-known for having highly variable word order. Depending on the discourse context, the major constituents of the sentence can be rearranged in multiple orders. Sentence (3) displays SOV word order.

- (3) *Anna knigi kupila.*
 Anna.FSG.NOM books.FPL.ACC bought.FSG
 ‘Anna bought books.’

Just as in (2), in (3), the subject is in the nominative case, the object—now occurring between the subject and the verb—is in the accusative case, and the verb again agrees with the nominative subject.

In fact, the three major constituents of a sentence can be arranged in any of the six logically possible word orders, with the remaining orders shown in (4)–(7). While these word order variants are truth-conditionally equivalent to one another, they vary in their discourse meaning.

- (4) *Kupila Anna knigi.*
 (5) *Kupila knigi Anna.*
 (6) *Knigi Anna kupila.*
 (7) *Knigi kupila Anna.*

² The initial noun phrase in (2) is uncontroversially considered a subject, being preverbal, nominative, and the agent of the buying event. The notion of ‘subject’ is not a primitive in Minimalism; see Chapter 2 for a discussion of properties typically associated with subjects in Russian and how these properties align with nominative case, syntactic position, and agentivity.

In each of these sentences, as in (2) and (3), the subject bears nominative case, the object bears accusative case, and the verb agrees with the nominative subject.

More generally, Russian verbs display ϕ -agreement (agreement in person, gender, and number) only with arguments bearing nominative case. Non-past tense verbs agree in person and number, as shown in Table 1.1, and past tense verbs agree in number and gender, as shown in Table 1.2.

Table 1.1: Non-past tense verbal agreement

	SINGULAR	PLURAL
1	<i>ja ponimaju</i> ‘I understand’	<i>my ponimaem</i> ‘we understand’
2	<i>ty ponimaješ’</i> ‘you understand’	<i>vy ponimaete</i> ‘you understand’
3	<i>on/ona/ono ponimaet</i> ‘he/she/it understands’	<i>oni ponimajut</i> ‘they understand’

Table 1.2: Past tense verbal agreement

	SINGULAR	PLURAL
M	<i>ja/ty/on ponimal</i> ‘I/you/he understood’	<i>my/vy/oni ponimali</i> ‘we/you/they understood’
F	<i>ja/ty/ona ponimala</i> ‘I/you/she understood’	<i>my/vy/oni ponimali</i> ‘we/you/they understood’
N	<i>ono ponimalo</i> ‘it understood’	<i>oni ponimali</i> ‘they understood’

As illustrated in Table 1.2, gender agreement on a past tense verb is neutralized when the agreement-triggering argument is plural.

Outside of the context of conjunction, plural nominative nouns trigger obligatory plural agreement on the verb, regardless of whether the noun appears preverbally, as in (8), or postverbally, as in (9).³

³ The acceptable sentences cited here are from the Russian National Corpus (RNC). The unacceptable versions of the sentences were judged by native speaker consultants.

- (8) *Deti ponimajut/*ponimaet, začem oni učat jazyk...*
 children.MPL understand.3PL/3SG why they learn language
 ‘Children understand why they learn language...’

(RNC. Kollektivnyj, Forum: Byli vy v strane prepodavaemogo jazyka? 2008-2011.)

- (9) *...gde v bezžalostnoj sxvatke intellekta i sily, rodilis’/*rodilsja*
 where in ruthless battle intellect.GEN and force.GEN were.born.PST.PL/MSG
geroi.
 heros.MPL
 ‘... where in a ruthless battle of intellect and power, heros were born.’

(RNC. Kollektivnyj, Forum: 17 mgnovenij vesny. 2005-2010.)

If there is no nominative argument with which the verb can agree, the verb appears with default agreement—in third person, neuter, singular form. Sentence (10) is an example of an impersonal sentence that arguably has no subject, while sentence (11) illustrates the genitive of negation construction, in which the verb’s sole argument, *otveta* ‘answer’, appears in the genitive case. Neither sentence has a nominative argument, and the verb in each sentence shows default third person, neuter, singular agreement.

- (10) *Včera na ulice bylo žarko.*
 yesterday on steet was.3NSG hot
 ‘It was hot outside yesterday.’

- (11) *Otveta ne prišlo.*
 answer.MSG.GEN NEG came.3NSG
 ‘An answer didn’t come.’

These basic word order and agreement patterns are complicated by the appearance of FCA, which I discuss presently.

1.2 FCA in Russian: The basic pattern

In this section, I illustrate the basic pattern of FCA, showing that the two or more apparently conjoined noun phrases can be any combination of gender and number and that the verb can be either past or non-past tense.

Before examining examples of FCA in detail, consider sentence (12), whose subject argument consists of two noun phrases conjoined with the conjunction *i* ‘and’ and whose verb is plural. The verb is intransitive and the subject follows the verb—a VS sentence. As Russian avoids verb-initial sentences outside of specific discourse contexts, a prepositional phrase precedes the verb in this example.

- (12) *Na stole stojali stakan i pepel'nica.*
 on table stood.PL glass.MSG.NOM and ashtray.FSG.NOM
 ‘On the table stood a glass and an ashtray.’

On the basis of the description provided in Section 1.1, plural agreement on the verb is the expected pattern.

FCA in Russian occurs in the same context as (12): in VS order, when the nominative argument apparently consists of two or more conjoined noun phrases, but the verb agrees with only the first (or closest, or leftmost) of the apparently conjoined noun phrases, as in (1), repeated below as (13).

- (13) *Na stole stojal stakan i pepel'nica.*
 on table stood.MSG glass.MSG.NOM and ashtray.FSG.NOM
 ‘On the table stood a glass and an ashtray.’

In (13), the first nominative noun in the larger conjoined phrase is masculine and singular, and the verb agrees with it in number and gender. Importantly, FCA is optional in Russian. Whenever a sentence like (13), which exemplifies FCA, is acceptable, its plural counterpart, as in (12), is also always acceptable. FCA is never obligatory.⁴

⁴ I do not consider examples like the equivalent of the English *my friend and colleague is...*, in which the conjoined

In FCA constructions, the genders of the apparently conjoined nouns can be any combination of the three genders available in Russian (masculine, feminine, or neuter). In every instance, the verb agrees with the first of the conjoined noun phrases. Sentences (13), (15), and (16) illustrate masculine verbal agreement when the first noun is masculine and the second noun is feminine, masculine, and neuter, respectively.

- (15) *Na stole stojal stakan i kuvšin.*
 on table stood.MSG glass.MSG.NOM and jug.MSG.NOM
 ‘On the table stood a glass and a jug.’

- (16) *Na večerinke igral magnetofon i radio.*
 at party played.MSG record.player.MSG.NOM and radio.NSG.NOM
 ‘At the party played a record player and a radio.’

Similarly, sentences (17), (18), and (19) illustrate feminine verbal agreement when the first noun is feminine and the second noun is masculine, feminine, and neuter, respectively.

- (17) *Na stole stojala pepel'nitsa i pustoj stakan.*
 on table stood.FSG ashtray.FSG.NOM and empty glass.MSG
 ‘On the table stood an ashtray and an empty glass.’ (Crockett, 1976, 216)

- (18) *Pri perezde razbilas' pepel'nica i miska.*
 during moving broke.FSG ashtray.FSG.NOM and bowl.FSG.NOM
 ‘During the move, an ashtray and a bowl broke.’

noun phrases refer to a single entity, to be examples of FCA. Sentence (14) illustrates the phenomenon in Russian.

- (14) *Rasskazyvaet xudožnik i iskusstved, pedagog zaočnogo Instituta*
 tells.3SG artist.MSG.NOM and art.critic.MSG.NOM educator.MSG.NOM of.correspondence Institute
iskusstv Nelli Georgievna Sal'kova. . .
 of.arts Nelli Georgievna Sal'kova
 ‘Artist and art critic, educator at the correspondence Institute of arts, Nelli Georgievna Sal'kova, tells. . .’
 (RNC. Narodnyj kostjum: arxaika ili sovremennost'? Narodnoe tvorčestvo. 2004.)

- (19) *I ja pomnju, kak vozmutilas' sem'ja i duxovenstvo...*
 and I remember how was.outraged.FSG family.FSG.NOM and clergy.NSG.NOM
 'And I remember how the family and clergy were outraged...'

(RNC. Mitropolit Antonij (Blum). O boleznjax. 1995.)

Finally, sentences (20), (21), and (22) illustrate neuter verbal agreement when the first noun is neuter and the second noun is masculine, feminine, and neuter, respectively.

- (20) *Pered nimi bylo bjuro i stolik, zastavlennyj telefonami.*
 in.front.of them was.NSG bureau.NSG.NOM and table.MSG.NOM crammed.with
telefonami.
 telephones
 'In front of them was a bureau and a table crammed with telephones.'

(RNC. Ju. O. Dombrovskij. Fakul'tet nenužnyx veščej, chast' 2. 1978.)

- (21) *Bylo razrušeno odno selenije i odna derevnja.*
 was.NSG destroyed.NSG one settlement.NSG.NOM and one village.FSG.NOM
 'One settlement and one village were destroyed.'

- (22) *V uglu komnatu stojalo zerkalo i bjuro.*
 in corner of.room stood.NSG mirror.NSG.NOM and bureau.NSG.NOM
 'In the corner of the room stood a mirror and a bureau.'

The examples shown in (13)–(22) illustrate that verbal agreement in FCA constructions tracks the agreement features of the first noun phrase. FCA should not be analyzed as default agreement; as shown in (10) and (11), Russian does have default agreement, but it is manifested as third person, neuter, singular. By contrast, in FCA constructions, the verb can be masculine or feminine as well as neuter.

Additionally, the number feature of the apparently conjoined noun phrases in an FCA construction does not affect the acceptability of the sentence. The non-initial noun phrase can be singular,

as in all of the examples in (13)–(22), or plural. Sentences (23)–(25) illustrate that the verb can display singular agreement with the first noun phrase even when the second noun phrase is plural. These examples illustrate FCA when the second noun phrase is plural and the first is singular and masculine, feminine, or neuter, respectively.

- (23) *V derevne poslyšalsja topot i kriki.*
 in countryside was.heard.MSG clatter.MSG.NOM and shouts.MPL.NOM
 ‘In the countryside was heard a clatter and shouts.’ (Tolstoy, *War and Peace*)

- (24) *... na stole uže pojavilas' butylka i stakany.*
 on table already appeared.FSG bottle.FSG.NOM and glasses.MPL.NOM
 ‘... on the table had already appeared a bottle and glasses.’
 (RNC. Ju. O. Dombrovskij. *Fakul'tet nenužnyx veščej, chast' 5.* 1978.)

- (25) *Končalos' prodovol'stvie i medikamenty.*
 ran.out.NSG food.supply.NSG.NOM and medicines.MPL.NOM
 ‘The food supply and medicines ran out.’
 (RNC. A. Basov. *Sevastopol' pridetsja ostavit' ... Rodina.* 1996.)

When the initial noun phrase is plural, the verb is plural. In such instances, it is impossible to tell whether such a sentence displays FCA or ordinary plural agreement (as shown in (12)).

Just as the gender and number of the apparently conjoined noun phrases do not affect the acceptability of FCA, the tense of the verb is irrelevant. Singular agreement in the context of coordination is possible both when the verb is in the past tense, as in all of the examples (13)–(25), as well as when the verb is in the non-past, as shown in (26) with a future form of the auxiliary verb *byt'* ‘be’, and in (27) with a present tense verb.

- (26) *Na vxode budet viset' zvonok i zamok.*
 on entrance will.3SG hang.INF bell.MSG.NOM and lock.MSG.NOM
 ‘At the entrance there will be a bell and a lock.’
 (RNC. Karmalita & Zajceva. *Byt' ‘kak doma’ v mestax...* 2011.)

- (27) *A esli v xolodil'nike ležit kolbasa i ogurcy...*
 but if in refrigerator lies.3SG sausage.FSG.NOM and cucumbers.MPL.NOM
 'But if there is a sausage and cucumbers in the refrigerator...'

(RNC. E. Piščikova. Pjatiëtažnaja Rossija. Russkaja Žizn'. 2008.)

As non-past tense verbs in Russian do not show agreement in gender, technically it is impossible to tell whether sentences like (26) are genuine instances of FCA—they could instead be examples of agreement between the verb and the second (or farthest) conjunct. However, sentences like (27), in which the first noun phrase is singular and the second noun phrase is plural, illustrate that the verbal agreement must be triggered by the first noun phrase. I assume that examples like (26) follow this pattern and are genuine instances of FCA.

Finally, while all of the previous examples in this section illustrate FCA in the context of *two* apparently conjoined noun phrases, FCA can also appear when there are more than two apparently conjoined noun phrases, as in (28).

- (28) *Vmeste so mnoj na kosmodrom letel German Titov,*
 together with me to launching.site flew.MSG German.MSG.NOM Titov.MSG.NOM
eščë neskol'ko kosmonavtov, gruppā naučnyx
 another several cosmonauts.MPL.GEN group.FSG.NOM scientific.MPL.GEN
rabotnikov i vrač.
 workers.MPL.GEN and doctor.MSG.NOM
 'With me to the launching site flew German Titov, several other cosmonauts, a group of
 scientists, and a doctor.' (Crockett, 1976, 217)

Taken together, all of the examples in this section illustrate that, when the nominative argument in a VS sentence consists of two or more apparently conjoined noun phrases, the verb can agree with the first noun phrase, regardless of its gender and number and regardless of the gender and number of the non-initial noun phrases. The next section builds on these basic distributional facts; I

illustrate three constraints on where FCA can appear and discuss the theoretical questions raised by each constraint.

1.3 The distribution of FCA and its implications

While FCA is well attested and generally considered grammatical in Russian (see Crockett, 1976, Ch. 4), there are a number of constraints on its distribution that any analysis must contend with. Analyzing these constraints in sufficient detail to account for FCA requires confronting larger questions in the study of the syntax and lexical semantics of Slavic languages and beyond. First, I show that agreement with one conjunct in Russian occurs only when the nominative noun phrases appear postverbally—setting aside certain well-defined exceptions. This constraint leads me to investigate variable word order in Russian: how are the specific word order variants derived, and what are the properties that hold of, especially, postverbal nominative ‘subjects’? Second, I present the proposal, introduced by Babyonyshev (1996), that FCA occurs only when the verb is syntactically unaccusative or passive—that is, when the verb’s argument is introduced internal to the verb phrase. I show data that ultimately complicates this proposal, and I situate it in the context of the debate concerning variable unaccusative/unergative behavior. Ultimately I provide an account of such variable behavior that goes beyond this particular phenomenon and beyond Russian, explaining how a single verb can show the hallmarks of syntactic unaccusativity in certain sentences and the hallmarks of syntactic unergativity in others. Third and finally, I show that FCA is unacceptable in contexts in which the (semantic) plurality of the postverbal noun phrases is presupposed or, relatedly, in contexts in which the noun phrases form a single syntactic constituent. My syntactic analysis of FCA in Russian explores the size and structure of coordinated phrases and how predicate-argument agreement interacts with such structures. I discuss the crosslinguistic typology of FCA, arguing that phenomena descriptively referred to as FCA are unlikely to share the same analysis across languages.

1.3.1 FCA and variable word order

The first constraint on the distribution of FCA has to do with the relative position of the verb and the apparently conjoined noun phrases: FCA occurs only when the nominative noun phrases appear postverbally. Contrast (29), an acceptable sentence with FCA, to its counterpart in (30).

(29) *Na stole stojal stakan i pepel'nica.*
 on table stood.MSG glass.MSG.NOM and ashtray.FSG.NOM
 ‘On the table stood a glass and an ashtray.’

(30) *Stakan i pepel'nica stojali/*stojal/*stojala na stole.*
 glass.MSG.NOM and ashtray.FSG.NOM stood.PL/MSG/FSG on table
 ‘A glass and an ashtray stood on the table.’

In (30), the conjoined nominative noun phrases appear preverbally, and singular agreement—either with the initial noun phrase, which is masculine singular, or the following noun phrase, which is feminine singular—is impossible. In other words, both FCA and last conjunct agreement (LCA), are impossible in this context. In sentences like this, in which the noun phrases are preverbal, only plural agreement is possible.

In certain limited environments, singular agreement in the context of coordinated noun phrases can occur when the noun phrases are preverbal, but because of the distinctive environments in which this can occur, I consider it a separate phenomenon from FCA, outside of the scope of the dissertation. First, as observed by Crockett (1976, 267), this exceptional singular agreement can occur when the noun phrases “overlap semantically and apparently derive as single, composite nouns which represent single entities”; these tend to be mass nouns or collective nouns. In (31), the apparently conjoined noun phrases are mass nouns that appear preverbally, and the verb is singular.

- (31) *Ponjatno, čto publikuemaja proza i poèzija popadaet v*
 clear that published.FSG.NOM prose.FSG.NOM and poetry.FSG.NOM falls.3SG into
kontekst “bol’šogo vremeni” literatury...
 context big.GEN time.GEN literature.GEN
 ‘It is clear that published prose and poetry falls into the context of the ‘big time’ of
 literature...’

(RNC. A. Kraevskij. Žurnaly i poklonniki. 2003.)

In (31), the verb is in the present tense and both noun phrases are feminine; thus, it is impossible to tell whether the verb agrees with the first or the second noun phrase. Crockett (1976, 267) states that predicates that display gender agreement generally require that the gender of the conjuncts match in sentences like (31); this differs from uncontroversial examples of FCA, as shown in Section 1.2, in which gender mismatch is possible.

Next, singular agreement when the apparently conjoined noun phrases are preverbal can also occur when the noun phrases are quantified by certain quantifiers, such as *každyj* ‘every’ as in (32).

- (32) *...daby každyj pedagog i každyj rebënok znal...*
 so.that every teacher.MSG.NOM and every child.MSG.NOM knew.PST.MSG
 ‘...so that every teacher and every child knew...’

(RNC. N. Granina. Ot zvonka do zvonka. 2003.)

Finally, singular agreement when the apparently conjoined noun phrases are preverbal is also possible when *i* precedes the first noun phrase in a “conjunction doubling” construction, as in (33). In this construction, the first nominal is in focus.

- (33) *I Vasja, i Osja poedet s nami.*
 both Vasya.MSG.NOM and Osya.MSG.NOM come.FUT.3SG with us
 ‘Both Vasya and Osya will come with us.’ (Crockett, 1976, 254)

Outside of these limited contexts—mass and collective nouns, nouns quantified with certain quantifiers, and the conjunction doubling construction—singular agreement when the apparently conjoined noun phrases are preverbal is ungrammatical in Russian.⁵

In order to account for this word order restriction on FCA, it is necessary to understand how sentences with postverbal nominative arguments—that is, VS or OVS sentences—arise in Russian to begin with. Slavic languages are well known for having variable word order, in which the major constituents of the sentence can be arranged in multiple orders (see sentences (2)–(7)), but the exact derivation of these orders is a matter of ongoing debate.

Approaches to variable word order have taken many different forms. For example, one analytical option, proposed for so-called “free” word order languages like Warlpiri, is to suppose that languages with variable word order are non-configurational, characterized by a “flat” constituent structure (see Hale, 1983). That is, every lexical category is projected only one level, and the only syntactic constituent is a full clause. However, Russian word order is not totally “free”, but instead it can be described as highly *variable* or *flexible*—meaning that not every logically possible word order is allowed. Additionally, overwhelming evidence demonstrates that Russian is a configurational language, in which constituents nest inside one another to form hierarchical syntactic relationships (Pesetsky, 1982; Bailyn, 1995; King, 1995).

A second analytical possibility, proposed by Neeleman (1994), Bošković & Takahashi (1998), Fanselow (2001), and Bošković (2004) for Japanese and other languages, is that word order variants, despite being truth-conditionally equivalent, are not derivationally related to one another. For them, the non-canonical word order variants are the result of arguments being base-generated in different orders. Proponents of such analyses propose that arguments in the non-canonical word orders in (3)–(7), such as SOV, VSO, OVS, and so on, are base-generated in the syntactic positions in which they are ultimately pronounced, and that they then move at Logical Form to a position in which they can be assigned θ -roles. However, this analysis does not appear to be well-motivated either in

⁵ In my examples, whenever it is possible to do so, I use only non-quantified count nouns that lack an initial conjunction *i*.

Russian or in Japanese (Bailyn, 2001; Boeckx, 2003, respectively).

A third family of approaches, from early generative work to modern analyses, maintains that at least some word order variants are derived from a basic underlying structure via syntactic movement (Ross, 1967; Harada, 1977; Saito, 1985, 1989, 1992; Bailyn, 1995, 2001, 2004; King, 1995; Kon-drashova, 1996; Junghanns & Zybatow, 1997; Sekerina, 1997; Slioussar, 2007, 2011; Dyakonova, 2009). Those analyses that focus on Russian differ from one another in two major ways: they have different explanations for why the movement of arguments is motivated, and they arrive at different conclusions concerning the syntactic positions that the arguments occupy.

Within the Minimalist Program, syntactic movement must be well-motivated and never optional (Chomsky, 1995; Adger, 2003)—so what motivates the movement that results in the non-canonical word orders? For some researchers, many of the non-SVO word orders are derived by appealing to the Extended Projection Principle (EPP), which requires that the specifier of TP be filled. Under these analyses, many kinds of elements can fulfill the EPP requirement on T in Russian, including non-nominative noun phrases and prepositional phrases (Babyonyshev, 1996; Lavine, 1998; Babyonyshev et al., 2001; Lavine & Freidin, 2002; Bailyn, 2004).

This kind of analysis raises the question: what properties are borne by elements that appear in the specifier of TP, traditionally considered the “subject” position? The notion of “subject” is not a theoretical primitive in Minimalism; nevertheless, arguments that are traditionally considered subjects, such as preverbal nominative arguments, have a number of properties that set them apart from other arguments; these properties are language-specific. In Russian, such properties include the ability to serve as the antecedent of certain anaphors, induce a complementizer-trace effect, and undergo raising, among other properties. For any given language, one must ask whether these “subjecthood” properties are actually tied to a particular syntactic position, and relatedly, whether these properties hold of elements that are not traditionally considered canonical subjects—such as preverbal non-nominative arguments like the accusative marked argument *knigi* ‘books’ in the OVS sentence in (7), or postverbal nominative arguments, like the nominative marked argument *Anna* in (7). Establishing why certain elements bear “subjecthood” properties helps determine the syntactic

position of arguments and the motivation underlying their movement.

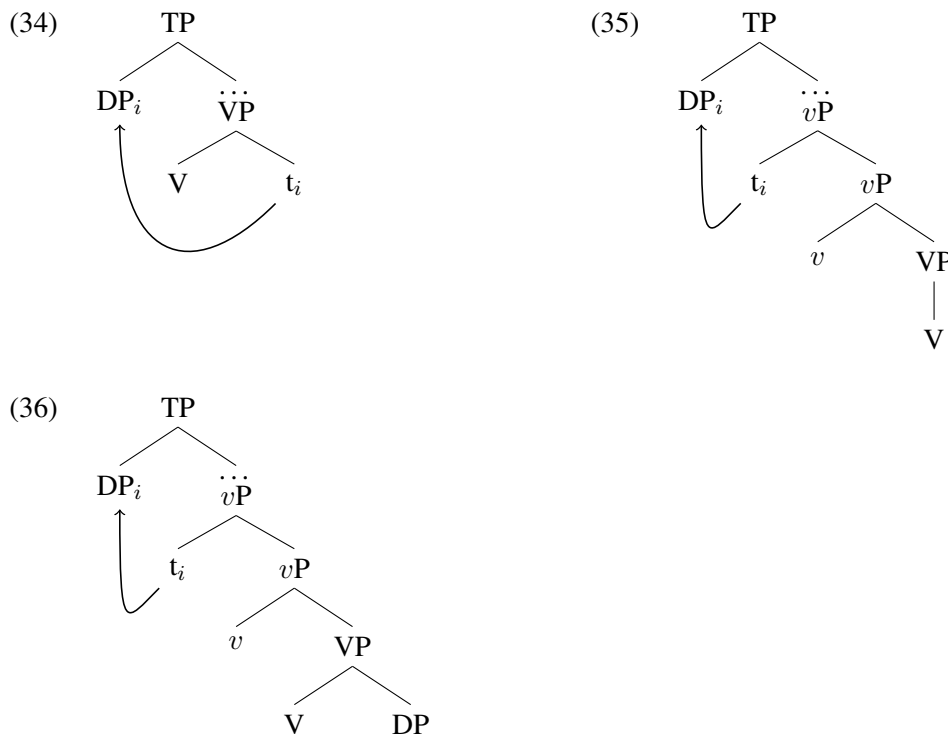
In turn, understanding the derivational path of certain arguments can shed light on how exactly arguments are pronounced, i.e. when and how they are sent to the phonological component (PF). Under the copy theory of movement (Chomsky, 1993, 1995), an element that moves in the syntax leaves behind copies of itself, including syntactic and phonological representations, in the lower positions that it occupies; generally, the lower copies are inaccessible to PF, and the highest copy is pronounced (see Nunes, 2004; Corver & Nunes, 2007). In some circumstances, one of the lower copies is pronounced instead, a phenomenon known as covert movement. While covert movement is well known within the domain of A'-movement—having been proposed to explain, e.g., the interpretation of *wh*-elements in some *wh*-in-situ languages (Cheng, 2009), some instances of rightward scrambling (Mahajan, 1990, 1997), and some instances of topicalization (Polinsky & Potsdam, 2001)—covert movement is less often proposed within the domain of A-movement (Polinsky & Potsdam, 2013). Certain nominative arguments in Russian that appear postverbally, such as the nominative marked argument in an OVS sentence or the sole nominative argument of an unaccusative verb in a VS sentence, have properties that suggest that they occupy the specifier of TP, despite being pronounced postverbally—that is, they appear to have undergone covert A-movement. The behavior of such covertly moved arguments can therefore help elucidate the roles of, and the relationship between, syntax and the phonological component.

In this way, a thorough investigation of why FCA occurs in the context of postverbal nominative arguments brings up larger questions concerning the syntactic derivation of VS word order, the behavior of nominative arguments in the positions they occupy throughout the derivation, and the pronunciation options available to such arguments.

1.3.2 FCA and variable unaccusative/unergative behavior

The second major restriction on the distribution of FCA in Russian concerns the status of the verb with respect to unaccusativity and related notions. The Unaccusativity Hypothesis, formulated by Perlmutter (1978) and adopted into the Government and Binding framework by Burzio

(1981, 1986), posits that there are two classes of intransitive verbs, unaccusatives and unergatives, each associated with a different syntactic representation and concomitantly with different syntactic behavior. The sole argument of an unaccusative verb is said to be realized as an underlying direct object, as in the representation in (34), and concomitantly shares properties with direct objects of transitive verbs and the subjects of passive verbs. By contrast, the sole argument of an unergative verb is said to be realized as an underlying subject, as in the representation in (35), and concomitantly shares properties with the subjects of transitive verbs. Compare these structures to the tree in (36), which represents a structure with a transitive verb.⁶



While there is some debate concerning the nature of the distinction between unaccusative verbs and unergative verbs, many researchers have concluded that semantic differences underlie the syntactic distinction. The sole argument of an unaccusative verb is generally considered to be a patient or a

⁶ In these representations, I assume for concreteness that unergative and transitive structures have a *vP* shell, while unaccusative structures do not. As an alternative, it is possible that all three structures have a *vP* shell, but that the unaccusative *v* is a different “flavor” from unergative and transitive *v*—a distinct featural makeup that results in distinct syntactic behavior. Nothing hinges on this decision.

theme, while the sole argument of an unergative verb is usually, but not always, an agent.

Several syntactic phenomena in Russian are said to be sensitive to the unaccusative/unergative distinction, including the genitive of negation, the distributive preposition *po*, certain quantificational prefixes on the verb, and locative inversion. Such phenomena are said to be acceptable only when the verb is syntactically unaccusative, indicating that the verb's sole argument is base-generated internal to the verb phrase. On the basis of these diagnostics, the unaccusative class of verbs in Russian is said to include *priiti* 'arrive', *pojavljať/sja* 'appear', *padat'* 'fall', *rasti* 'grow', *stojat'* 'stand', and *tonut'* 'drown/sink', among others, while the unergative class is said to include *zvonit'* 'call', *igrat'* 'play', *pet'* 'sing', *svistet'* 'whistle', and *smejat'/sja* 'laugh', among others (Babby, 1980; Pesetsky, 1982; Babyonyshev, 1996; Harves, 2003).

Babyonyshev (1996) first argued that FCA is a diagnostic of unaccusativity in Russian, appearing only with unaccusative verbs, as in (13), repeated below as (37), and passive verbs, as in (21), repeated below as (38).

(37) *Na stole stojal stakan i pepel'nica.*

on table stood.MSG glass.MSG.NOM and ashtray.FSG.NOM

'On the table stood a glass and an ashtray.'

(38) *Bylo razrušeno odno selenije i odna derevnja.*

was.NSG destroyed.NSG one settlement.NSG.NOM and one village.FSG.NOM

'One settlement and one village were destroyed.'

According to Babyonyshev and those who adopt her proposal, FCA is unacceptable when the verb is unergative or transitive, as in (39) and (40), respectively. Instead, when such verbs apparently take a conjoined nominative argument, they must always appear with plural agreement.

(39) * *Na včerinke igral Andrej i Kolja.*

at party played.MSG Andrey.MSG.NOM and Kolya.MSG.NOM

intended: 'Andrey and Kolya played at the party.'

- (40) * *Stixi pišet Svetlov i Romanov.*
 poems write.3SG Svetlov.MSG.NOM and Romanov.MSG.NOM
 intended: ‘Those who write poetry are Svetlov and Romanov.’ (Crockett, 1976, 223)

This restriction on the distribution of FCA is not clear-cut; a number of exceptions apply. For example, in certain circumstances, a verb that is considered unaccusative may fail to display FCA, as in (41). Notice that this example uses the verb *stojat'* ‘stand’, which is not only typically considered unaccusative, but also appears with FCA in example (37).

- (41) * *Na lestničnoj ploščadke stojal sosed i ego brat.*
 on stairway landing stood.MSG neighbor.MSG.NOM and his brother.MSG.NOM
 intended: ‘My neighbor and his brother were standing on the stairway landing.’

Conversely, a verb that is considered unergative may exceptionally appear with FCA, as in (42). Interestingly, however, such verbs cannot *always* appear with FCA; as shown in (43), under certain circumstances, FCA is unacceptable with such verbs.

- (42) *Šumel veter i dožd'.*
 made.noise.MSG wind.MSG.NOM and rain.MSG.NOM
 ‘The wind and rain were whooshing.’
- (43) * *Šumel Vanja i Kolja.*
 made.noise.MSG Vanya.MSG.NOM and Kolya.MSG.NOM
 intended: ‘Vanya and Kolya were making noise.’

These examples therefore illustrate that the distribution of FCA is more complex than Babyonyshev’s initial proposal suggests.

The behavior exemplified with FCA in these examples is not limited to that phenomenon—it is apparent with other purported diagnostics of unaccusativity in Russian as well. The genitive of negation construction is a much more widely-used diagnostic of unaccusativity in Russian and is arguably better-understood (Neidle, 1982; Pesetsky, 1982); it, too, gives variable results with

certain verbs. For example, consider two sentences using the verb *rasti* ‘grow’, typically considered unaccusative. In (44), the sole argument of *rasti* appears in the genitive case in a negative context, while in (45), genitive case on the verb’s argument is disallowed.

- (44) *Nikakix gribov zdes' ne rastët.*
 no.MPL.GEN mushrooms.MPL.GEN here NEG grows.3SG
 ‘No mushrooms grow here.’

- (45) **Nikakogo rebënka ne rastët.*
 no.MSG.GEN child.MSG.GEN NEG grows.3SG
 intended: ‘No child grows.’

The behavior of genitive of negation with *rasti* ‘grow’ parallels that of FCA with *stojat'* ‘stand’: both purported diagnostics of unaccusativity give variable results with the same verb.

Researchers have attributed the variable behavior of FCA and the genitive of negation construction to various factors that are related to, but not necessarily equivalent to, the syntactic unaccusativity status of the verb, such as the animacy, agentivity, or volitionality of the participants in the event, or aspectual properties of the event (see Chapter 3 for an overview). One of the major challenges to developing an analysis of FCA is understanding this variable behavior more generally.

In examining the behavior of FCA and the genitive of negation in Russian, as well as constructions that are sensitive to unaccusativity in other languages, it becomes clear that such diagnostics do not lead to a neat or clear-cut distinction between a class of unaccusative verbs on the one hand and a class of unergative verbs on the other. In fact, it is well known that certain verbs show variable unaccusative/unergative behavior, meaning that they display the hallmarks of unaccusativity in some contexts and the hallmarks of unergativity in others. This variable unaccusative/unergative behavior is not limited to a small class of verbs, but instead appears to be a broad, systematic pattern.

The problem of variable unaccusative/unergative behavior raises a broader theoretical question: how, exactly, do a verb and its arguments come to be associated with a syntactic structure? This question is intimately tied to the dispute concerning the division of labor between the syntax and

the lexicon. In early instantiations of generative grammar, each verb was assumed to have a subcategorization frame as a part of its lexical entry; the subcategorization frame indicated the syntactic context in which the verb appeared, and thus, how the verb's arguments would be syntactically realized (Chomsky, 1957, 1965). A subcategorization frame does not make reference to the meaning of the verb or its arguments; however, it is well-known that classes of verbs that share similar meanings also share argument realization options, suggesting that these realization options can be attributed to the semantic properties common to each class of verbs.

In the 1980s, as researchers acknowledged that a verb's argument realization options are related to its meaning, subcategorization frames were replaced by semantically-based representations, such as theta-grids, that determine the verb's argument realization options (Stowell, 1981; Williams, 1981; Pesetsky, 1982; Marantz, 1984). While these approaches, termed "projectionist" by Rappaport Hovav & Levin (1998), differ in their implementation, they have in common the notion that the syntactic contexts in which a verb is found can be derived from its meaning (e.g., via mapping rules).

In recent years, a third cluster of approaches has moved away from structured lexical representations, holding that the lexical entry of a verb contains only its core, idiosyncratic meaning—its "root"—without any associated arguments (Halle & Marantz, 1993; Harley, 1995, 2005; Marantz, 1997; Borer, 2003; Ramchand, 2008). Under these approaches, termed "neoconstructional" by Rappaport Hovav & Levin (1998), the verb root is inserted into a syntactic structure and the arguments are contributed by the construction into which the verb is inserted. The meaning of the construction is derived compositionally from the meaning of the verb root and the meaning of the syntactic structure.

Certain phenomena play a key role in motivating the move from projectionist approaches to neoconstructional approaches—or perhaps more generally, from theories in which a verb's lexical entry contains a structured representation of its arguments to theories in which the verb root itself is not associated with any information about its arguments—chief among them argument alternations, such as the dative alternation, in (46), and the locative alternation, in (47).

- (46) a. The girl gave milk to the cat.
b. The girl gave the cat milk.
- (47) a. The children loaded stones on the cart.
b. The childred loaded the cart with stones.

Such alternations illustrate how a single verb can be used in more than one syntactic context. Alternations like these are pervasive, both within and across languages, and they have been taken to suggest that a verb's lexical entry contains little to no information about its arguments, and that a verb's arguments instead are contributed by the syntactic construction in which it appears.

Variable unaccusative/unergative behavior, too, speaks to this debate. In Russian, the contrasts in acceptability both with FCA, as in (37) and (41)–(43), and with the genitive of negation construction, as in (44) and (45), suggest that Russian intransitive verb roots can occur in two different syntactic contexts: one in which the sole argument of the verb is introduced in a low position, as in the unaccusative structure in (34), and one in which the sole argument of the verb is introduced in a higher position, as in the unergative structure in (35). In the former scenario, the verbs show the hallmarks of unaccusativity, and in the latter, they show the hallmarks of unergativity. If this is the case, then these phenomena may count in favor of the neoconstructional approaches mentioned above: it may be that the verb root is free to appear in different syntactic contexts, and that the verb's argument, rather than being mapped to a syntactic structure from information within a verb's lexical entry, is contributed by the syntactic construction itself.

Examining the environments in which FCA and the genitive of negation construction can appear in Russian—which verbs and which choices of arguments are possible—sheds light on how variable unaccusative/unergative behavior arises, and concomitantly how a verb and its arguments come to be associated with a syntactic structure.

1.3.3 FCA and the size and structure of the coordinated phrase

The third restriction on the distribution of FCA in Russian concerns the ability of the noun phrases to form a constituent that is semantically plural. For example, the postverbal noun phrases in an FCA construction cannot be modified by *vmeste* ‘together’, a modifier that presupposes the semantic plurality of the nouns it modifies, as shown in (48).

- (48) *Na багаžnoj lente vmeste pojavilis'/*pojavilsja čemodan i*
 on baggage ribbon together appeared.PL/MSG suitcase.MSG.NOM and
portfel'.
 briefcase.MSG.NOM
 ‘A suitcase and a briefcase appeared together on the baggage carousel.’

Nor can FCA occur with a “collective predicate”—a verb like *smešat'sja* ‘mix’ or *vstrečat'sja* ‘meet’ that requires that its argument(s) be semantically plural, as in (49).

- (49) *... gde smešalis'/*smešalsja den' i noč', smert' i*
 where mixed.PST.PL/MSG day.MSG.NOM and night.FSG.NOM death.FSG.NOM and
smex, rastvorilsja Mark.
 laughter.MSG.NOM disappeared.MSG Mark.MSG.NOM
 ‘... where day and night, death and laughter mixed, Mark disappeared.’

(RNC. E. Xaeckaja. *Sinie strekozy Vavilona*. 2004.)

Both the modifier *vmeste* ‘together’ and the collective predicate *smešat'sja* ‘mix’ require a semantically plural element; they are both incompatible with FCA.

Similarly, FCA is impossible in environments in which the relevant noun phrases form a syntactic constituent. They cannot, for example, jointly corefer with an anaphor. First, consider (50), in which the verb is plural and takes a conjoined noun phrase as its argument. Here, the possessive anaphor *svoj* can jointly corefer with the conjoined noun phrases.

- (50) *K svoemu domu podošli privlekatel'nyj*
 to self's.MSG.DAT house.MSG.DAT approached.PST.PL attractive.MSG.NOM
mužčina i ego mladšij brat.
 man.MSG.NOM and his younger.MSG.NOM brother.MSG.NOM
 '[An attractive man and his younger brother]_i came up to their_i own house.'

By contrast, in (51), FCA is present, and the anaphor *svoj* cannot jointly cofer with the apparently conjoined noun phrases.

- (51) *K svoemu domu podošěl privlekatel'nyj*
 to self's.MSG.DAT house.MSG.DAT approached.PST.MSG attractive.MSG.NOM
mužčina i ego mladšij brat.
 man.MSG.NOM and his younger.MSG.NOM brother.MSG.NOM
 '[[An attractive man]_i and his younger brother]_k came up to his_i/*their_k own house.'

Instead, when the verb is singular, the only possible referent of *svoj* is the first noun phrase. In other words, when the noun phrases join together to form a constituent, consequently jointly coreferring with *svoj*, only plural agreement is possible.

The same restriction can be illustrated using a genitive marked postnominal possessor. When the verb is plural, two interpretations are possible. The postnominal possessor can be interpreted as possessing the referent of the noun phrase to its immediate left, indicating low scope, or it can be interpreted as possessing the referents of both noun phrases, indicating high scope, as in (52). Under the second interpretation, the noun phrases form a constituent over which the possessor can scope.

- (52) *V prudu utonuli šarf i varežka materi.*
 in pond sank.PL scarf.MSG.NOM and mitten.FSG.NOM mother.FSG.GEN
 'A scarf and mother's mitten sank in the pond.' low scope
 'Mother's [scarf and mitten] sank in the pond.' high scope

When FCA is present, however, the postnominal possessor cannot scope over both noun phrases, as shown in (53).

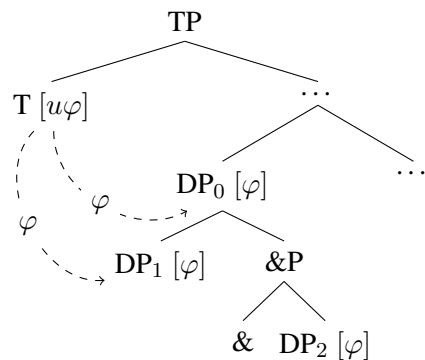
- (53) *V prudu utonul šarf i varežka materi.*
 in pond sank.MSG scarf.MSG.NOM and mitten.FSG.NOM mother.FSG.GEN
 = ‘A scarf and mother’s mitten sank in the pond.’ low scope
 ≠ ‘Mother’s [scarf and mitten] sank in the pond.’ *high scope

Instead, the only available interpretation is that the possessor possesses the referent of the noun phrase to its immediate left, the low scope interpretation. This suggests that, when FCA is present, the noun phrases do not form a constituent over which the postnominal possessor can scope.

Taken together, these examples illustrate a striking restriction on the distribution of FCA in Russian—it does not occur when the apparently conjoined noun phrases form a single syntactic constituent that is semantically plural.

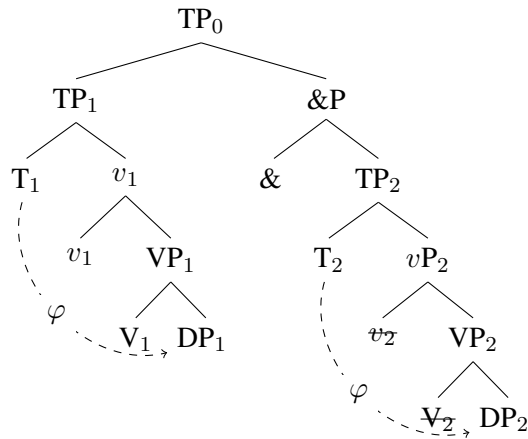
This restriction helps decide between two competing families of analyses of FCA across languages. Under one family of analyses (see Van Koppen, 2005), the two or more apparently conjoined noun phrases in an FCA construction are immediately conjoined, forming a larger noun phrase. Verbal agreement is determined by an agreement probe on T. The agreement probe can target either the higher, conjoined noun phrase (DP₀ in (54) below), resulting in plural agreement, or the first of the conjoined noun phrases (DP₁ in (54) below). This second option has the potential to result in singular agreement.

(54)



In an alternative analysis, the agreement-triggering noun phrases are not immediately conjoined, but instead the conjunction occurs at a higher level (Aoun et al., 1994, 1995), as illustrated in (55).

(55)



This analysis involves two agreement probes within separate constituents, each agreeing with a noun phrase within its constituent. Some material within the second conjunct is not pronounced, indicated by the strike-through text in the tree.

Analyzing FCA in Russian involves determining the size of the conjoined constituent, the behavior of the agreement probe, and the restrictions on non-pronunciation of syntactic material. Since, as I argue, FCA in Russian is not possible when the noun phrases form a constituent, it is not compatible with the first family of analyses. I argue in Chapter 4 that the second family of analyses is a better match to FCA in Russian, though my analysis differs from Aoun et al. (1994, 1995) in the particulars.

The analysis of FCA in Russian contributes to an understanding of the restrictions on movement out of a coordinated structure. Ross's (1967) Coordinate Structure Constraint states that, in a coordinate structure, (a) no conjunct may be moved out of the coordinate structure, and (b) no element contained in a conjunct may be moved out of that conjunct. More recent work, however, suggests that clause (b) is weaker than clause (a), and can be violated under circumstances in which clause (a) cannot be (Grosu, 1973). Additionally, Johnson (1996) and Lin (2002) propose that (certain kinds of) A-movement are not subject to the Coordinate Structure Constraint (or at least, not as it is

defined above). Under my analysis of FCA, the nominative argument with which the verb displays agreement moves covertly out of the coordinated structure to the specifier of TP, in apparent violation of clause (b) of the Coordinate Structure Constraint. The analysis, then, speaks to the issue of what kinds of elements can move out of a coordinated structure.

Further, the distribution of FCA in Russian differs from that of conjunct-sensitive agreement in other languages, such as varieties of Arabic and Hindi-Urdu, suggesting that phenomena descriptively referred to as FCA should not receive the same analysis across languages. I argue in Chapter 4 that, while the structure of coordination and the mechanism underlying predicate-argument agreement should be considered universal, there are language-specific properties that determine the distribution of conjunct-sensitive agreement constructions, such as the size of the coordinated phrase involved, the presence or absence of an EPP requirement on T, and the availability of covert movement within the language.

These three restrictions on the distribution of FCA in Russian—(1) that FCA occurs only when the noun phrases are postverbal, (2) that FCA occurs only when the noun phrases are internal arguments of the verb, and (3) that FCA cannot occur when the noun phrases form a semantically plural constituent—each dovetail with several broader issues in the syntax and lexical semantics of Slavic languages and beyond. Examining this phenomenon in sufficient detail to account for its distribution requires me to confront these issues, ultimately shedding light on how variable word order arises, how arguments are realized syntactically, and how coordinated structures interact with predicate-argument agreement.

1.4 The structure of the dissertation

This dissertation is divided into three main chapters, each of which addresses central questions discussed in Section 1.3: *Nominative arguments in the Russian clause* (Chapter 2), *Variable unaccusative/unergative behavior* (Chapter 3), and *The syntactic analysis of FCA in Russian* (Chapter 4).

1.4.1 Chapter 2: *Nominative arguments in the Russian clause*

This chapter establishes a basic analysis of Russian clausal syntax, with particular attention to the structural positions and syntactic behavior of nominative arguments. The major goal of this chapter is to determine the derivational paths taken by nominative arguments in the sentences in which such arguments appear, whether they appear preverbally or postverbally.

In Russian, as in other Slavic languages, the words of a sentence may be arranged in almost any order, as illustrated in Section 1.1. How does this word order variability arise? I argue as a preliminary, in Section 2.2, that word order variants are related to one another by syntactic movement (Bailyn, 1995; King, 1995; Bailyn, 2001, 2004; Kondrashova, 1996; Junghanns & Zybatow, 1997; Sekerina, 1997; Slioussar, 2007, 2011; Dyakonova, 2009; cf. Bošković & Takahashi, 1998), and the rest of the chapter argues for particular derivations of some key word order variants.

In Section 2.3, I consider the base-generated position of the various kinds of nominative arguments. To do so, I review unaccusativity diagnostics that distinguish between clauses in which the sole nominative argument of an intransitive verb has been introduced as a sister to the verb and those in which the nominative argument is introduced externally to the verb phrase.

The rest of the chapter discusses the landing sites of nominative arguments, with the dual goals of understanding how word order variation arises and determining why nominative arguments that are pronounced in certain positions have the behavioral properties that they do. Thus, I discuss in Section 2.4 the behavior of nominative arguments that are pronounced preverbally. Traditionally referred to as (canonical) “subjects”, such nominative arguments have a number of “subjecthood properties”, such as the ability to bind certain anaphors and participate in raising constructions; this section attempts to determine whether these “subjecthood properties” are related to the nominative argument’s appearance in a specific syntactic position or are instead due to other factors. I argue that some but not all of these “subjecthood diagnostics” in Russian point to a high syntactic position for preverbal nominative arguments.

Finally, in Section 2.5, I consider the behavior of nominative arguments that are pronounced

postverbally, showing that such arguments retain certain “subjecthood properties” even in their postverbal position. I argue, following Krejci et al. (2018), that a nominative argument has the ability to occupy a high syntactic position—the specifier of TP—even when the argument is pronounced postverbally. This “covert movement” analysis of postverbal nominative arguments provides a novel way of deriving certain instances of VS word order, and it is a key part of the syntactic analysis of FCA developed in Chapter 4.

In sum, Chapter 2 tracks nominative arguments as they move through the derivation, from the site of their base-generation to their landing site. In so doing, Chapter 2 provides an outline of Russian clausal syntax, including the derivations of certain word order variants. It serves as the foundation of the rest of the dissertation, which relies on the analyses presented in Chapter 2 as it attempts to explain how the unaccusative/unergative distinction arises and how it is manifested in FCA in Russian.

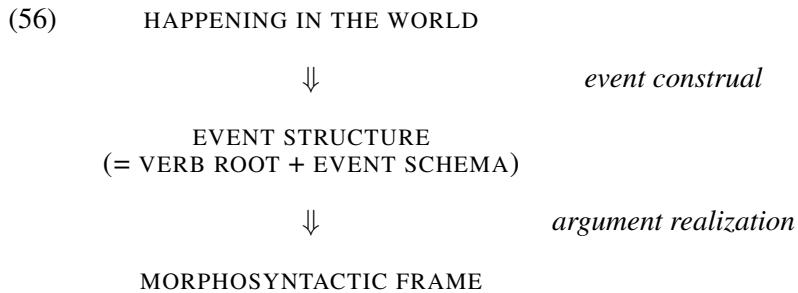
1.4.2 Chapter 3: *Variable unaccusative/unergative behavior*

In Chapter 3, I discuss the phenomenon of variable unaccusative/unergative behavior in Russian, and I propose an analysis that describes its origins and identifies constraints on the observed variability.

In Sections 3.2 and 3.3, I review characterizations of FCA and other phenomena related to unaccusativity in Russian; while some authors consider such phenomena to be diagnostics of syntactic unaccusativity, others describe their distribution in semantic terms, arguing that the animacy, agentivity, and/or a particular kind of “experiencerhood” of the event participants influences whether the phenomena are compatible with certain verbs. In Section 3.4, I argue that previously proposed approaches to variable unaccusative/unergative behavior in other languages cannot be straightforwardly applied to Russian.

Instead, in Section 3.5, I propose a model of the relationships among happenings in the real world, verb meaning, and syntactic representation that allows me to account for variable unaccusative/unergative behavior in Russian and beyond. In this model, illustrated in (56), a happening in the world is linguistically construed as (or described as) an event of a certain type, meaning

that the happening is mapped to an event structure (Levin & Rappaport Hovav, 2005). The event structure is associated with a morphosyntactic frame by argument realization principles, ultimately determining the syntactic behavior of the clause.



The event structure consists of a verb root combined with an event schema (Pinker, 1989; Pesetsky, 1995; Rappaport Hovav & Levin, 1998; Borer, 2003, 2005; Lieber, 2004). A single verb root can be associated with more than one event schema (Hale & Keyser, 2002; Borer, 2005; Ramchand, 2008; Mateu, 2012), which means that a single verb root can come to be associated with either an unaccusative or an unergative syntactic frame. I show how this model accounts for variable unaccusative/unergative behavior in Russian, focusing on the use of FCA and the genitive of negation in the context of existential events, and I discuss why certain semantic factors, such as the animacy and agentivity of the participant(s) in the event, appear to play a role in whether a given verb appears with the hallmarks of unaccusativity or those of unergativity (Crockett, 1976; Corbett, 1983; Babyonyshev, 1996; Harves, 2003; Glushan, 2013).

1.4.3 Chapter 4: *The syntactic analysis of FCA in Russian*

The analyses presented in Chapters 2 and 3 come together in Chapter 4, which presents a novel analysis of FCA, with particular attention to the size and structure of the conjoined phrase. In Chapter 4, I present a syntactic analysis of FCA in Russian which departs from analyses of the phenomenon previously proposed for Russian and other Slavic languages (Babyonyshev, 1996; Harves, 2003; Bošković, 2009, 2010; Glushan, 2013). I argue for a particular structure of coordinated phrases and an analysis of how agreement targets its goal in such phrases.

After arguing in Section 4.2, as a preliminary, that FCA in Russian cannot be derived by appealing only to the linear order of the verb and its arguments, in Section 4.3 I turn to previously proposed approaches to FCA in other languages. As mentioned in Section 1.3.3, two families of hypotheses exist to account for FCA across languages: In the first, the nominative noun phrases are immediately conjoined, with FCA arising due to the interaction of the mechanism that determines agreement and the asymmetrical structure of conjunction (e.g., Munn, 1999; Van Koppen, 2005). In the second family of analyses, the nominative noun phrases are not immediately conjoined, but instead the conjunction occurs at a higher level (Aoun et al., 1994, 1995). In Section 4.4, I argue that the conjoined phrases are the size of *v*Ps/VPs in Russian FCA constructions. I show that the relevant noun phrases, when they occur in FCA constructions, are not immediately conjoined and do not form a constituent. Instead, FCA in Russian is the result of the conjunction of two or more verb phrases, with concomitant Across-the-Board movement of the verbs out of their verb phrases to adjoin to the aspectual head *Asp*. After considering and dismissing an alternative analysis in Section 4.5, I discuss the predictions of the analysis for FCA across languages in Section 4.6.

1.5 The data

Data in this dissertation come from multiple sources. Many example sentences are pulled from the literature; the sources in the literature are cited in-line next to the numbered example. Other examples come from the Russian National Corpus (RNC), a collection of written and spoken Russian of over 300 million words, created by the Institute of Russian Language, Russian Academy of Sciences. It is accessible at <http://www.ruscorpora.ru/en/>. For each sentence from the RNC, the RNC and the original source of the sentence are cited on the line following the numbered example. Sentences appearing without a citation were gathered via in-person native speaker elicitation or via online surveys, created on Qualtrics and distributed to native Russian speakers through Prolific Academic. Each of these original sentences was judged by three to 30 native speaker consultants. Some examples, such as (8) and (9) in Section 1.1, which cite the RNC as the source,

include both a grammatical version of the sentence and an ungrammatical one; as the RNC includes only attested sentences, the ungrammatical example in each instance was judged by native Russian speakers via elicitation.

Examples are transliterated using the linguistic system of transliteration, sometimes also called the scholarly, academic, or scientific transliteration system (Timberlake, 2004, Sec. 1.3.7). For consistency, examples from the literature that were originally transliterated using alternative systems have been converted.

Finally, a note on glossing conventions is in order. The glosses of examples from Russian are based on the Leipzig Glossing Rules (<https://www.eva.mpg.de/lingua/resources/-glossing-rules.php>); however, I have not included all of the morphological information of every word in the gloss. Instead, I have chosen to include the pieces of morphological information that are relevant to the discussion in the text and those that are necessary for understanding the basic relationships between the words in the example sentences. This means that, in (1), repeated as (57), for example, the prepositional phrase *na stole* ‘on the table’ is glossed as *on table* instead of *on table.MSG.LOC*.

- (57) *Na stole stojal stakan i pepel'nica.*
 on table stood.MSG glass.MSG.NOM and ashtray.FSG.NOM
 ‘On the table stood a glass and an ashtray.’

Similarly, adjectives, which agree with the nouns they modify in gender, number, and case, are not always explicitly marked as doing so; in places where the information is not relevant to the discussion in the text, it is not necessarily included in the gloss. Similarly, if information about the word can be understood from the English gloss, it is not necessarily glossed with the morphological information explicitly. For example, *stojal* in (57) is glossed as *stood.MSG* rather than *stood.PST.MSG* (or *stand.PST.MSG*) because the past tense can be inferred from the English gloss. Russian examples taken from sources in the literature may have modified glosses in order to achieve consistency throughout the dissertation, but examples from languages other than Russian retain the glosses given

in the original sources.

Chapter 2

Nominative arguments in the Russian clause

2.1 Introduction

Going back to at least the Prague School in the 1930s, the study of word order variation has enjoyed a long tradition in the domain of Slavic languages. In Slavic languages, the words of a sentence may be arranged in almost any order; while the word order variants are truth-conditionally equivalent to one another, they vary in their discourse meaning. Among the analytical options for understanding word order variability are (1) supposing that languages with variable word order are non-configurational, characterized by a “flat” constituent structure, (2) supposing that word order variants, despite being truth-conditionally equivalent, are not derivationally related to one another, or (3) supposing that word order variants are related to one another by syntactic movement of one kind or another. In this chapter, I examine word order variation in Russian, arguing for the third analytical option and arguing for particular derivations of some key word order variants. Throughout the chapter, I focus on the structural position and syntactic properties of nominative arguments in

the Russian clause—those that are sometimes described in the traditional literature as “subjects”—treating the behavior of these arguments as a key to understanding the potential word order derivations. After determining what properties these arguments have and why they have them, we can better understand word order variation in Russian and beyond.

In Section 2.2, I introduce the problem: I focus on four types of clauses in Russian that contain nominative arguments and that exhibit word order variation. There, I present previously proposed analyses of the word order variation that they exhibit and argue that word order variation in Russian should be attributed to syntactic movement. The following sections then make more specific claims about the syntactic derivations of the word order variants. In Section 2.3, I consider the base-generated position of the various kinds of nominative arguments. To do so, I review unaccusativity diagnostics that distinguish between clauses in which the sole nominative argument of an intransitive verb has been introduced as a sister to the verb and those in which the nominative argument is introduced externally to the verb phrase. With the base-generated positions of the nominative arguments established, Sections 2.4 and 2.5 turn to the landing sites of the nominative arguments. First, in Section 2.4, I argue that nominative arguments that appear preverbally occupy a high syntactic position, which I take to be specifier of TP; I show how some (but not all) of several previously proposed diagnostics of “subjecthood” in Russian point to such a high syntactic position for preverbal nominative arguments. Next, in Section 2.5, I consider the landing site of nominative arguments that are postverbal. I argue, following Krejci et al. (2018), that a nominative argument has the ability to occupy the specifier of TP, even when it is pronounced postverbally. Section 2.6 concludes.

2.2 Variable word order in Russian

As a discourse configurational language (É. Kiss, 1995), Russian displays highly variable word order (Bailyn, 1995; King, 1995). In this section, I describe the possible word orders of four basic types of clauses containing nominative arguments, and I review some of the many previously proposed approaches to variable word order in Russian.

2.2.1 Variable word order in four basic clause types

Many kinds of elements can occupy various positions in the linear order of a Russian sentence: noun phrases, prepositional phrases, and complementizer phrases; arguments and adjuncts; and even non-constituents (Bailyn, 1995). While not every possible word order combination is acceptable, word order in general is quite flexible. This subsection focuses on four basic types of clauses in which word order variation is possible; each type of clause contains one nominative argument.

2.2.1.1 Clauses with active transitive verbs

The most discourse-neutral word order of a canonical active transitive clause in Russian is subject-verb-object (SVO), as in (62) (Bailyn, 1995; Sekerina, 1997; cf. King, 1995).¹

- (62) *Anna kupila knigi.*
 Anna.FSG.NOM bought.FSG books.FPL.ACC
 ‘Anna bought books.’

¹ One exception to this generalization is that, when the object of the verb is expressed by a pronoun, the pronoun typically precedes the verb, as in (58)–(60).

- (58) *Studenty ego obožajut (?ego).*
 students.MPL.NOM him.MSG.ACC adore.PL him.MSG.ACC
 ‘The students adore him.’ (Dyakonova, 2009, 3)
- (59) *Ja ničego ne sdělala (?ničego).*
 I.NOM nothing.NSG.GEN NEG did.FSG nothing.NSG.GEN
 ‘I didn’t do anything.’ (Dyakonova, 2009, 3)
- (60) *Marat koe-čto pridumal (?koe-čto).*
 Marat.MSG.NOM something.NSG.ACC invented.MSG something.ACC
 ‘Marat invented something.’ (Dyakonova, 2009, 3)

Dyakonova (2009) argues that the pronoun appears preverbally in such sentences because clause-final position in Russian is a focus position, and pronouns resist being in focus. The acceptability of clauses with postverbal pronouns improves when the pronoun is followed by an element that can bear focus, as in (61).

- (61) *Papa podaril im ščenka.*
 dad.MSG.NOM gave.MSG them.3PL.DAT puppy.MSG.A=G
 ‘Their dad gave them a puppy.’ (Dyakonova, 2009, 3)

Given the right discourse context, however, other word orders become possible; when a sentence consists of a subject, a verb, and an object, any of the six logically possible word orders may be used, as in (62)–(67).

(63) *Anna knigi kupila.*

(64) *Kupila Anna knigi.*

(65) *Kupila knigi Anna.*

(66) *Knigi Anna kupila.*

(67) *Knigi kupila Anna.*

All of the word order variants in (62)–(67) are truth-conditionally equivalent, but the variation in word order gives rise to discourse effects. In other words, each variant differs from the others in its information structural packaging. Roughly speaking, the topic, or given information, appears first, followed by any discourse neutral material, followed by the focus, or the new information, of the utterance (Bailyn, 1995; King, 1995; Sekerina, 1997; Slioussar, 2007; Dyakonova, 2009). Correspondingly, the variants differ from one another in their intonational contours.

In all of the word order variants in (62)–(67), the noun phrase that is traditionally considered the subject, *Anna*, is marked with nominative case, the noun phrase that is traditionally considered the object, *knigi* ‘books’, is marked with accusative case,² and the verb agrees with the nominative argument.

2.2.1.2 Clauses with passive verbs

Russian has a periphrastic passive and a synthetic passive. In the periphrastic passive construction, which is only used with perfective verbs, a form of the copula *byl'* precedes the passive participle. The noun that is traditionally considered the subject, the patient/theme argument, is marked with

² In this instance, the accusative form is syncretic with the nominative form, but it is nevertheless uncontroversially analyzed as accusative. In each of these sentences, *knigi* ‘books’ could be replaced with the singular noun *knigu* ‘book’, which is an unambiguously accusative form.

nominative case. This nominative argument can appear either preverbally, as in (68), or postverbally, as in (69).³

(68) *Gazety* *byli* *polučeny.*
 newspapers.MPL.NOM were.PL received.PSV.PL
 ‘The newspapers were received.’

(69) *Segodnja byli* *polučeny* *gazety.*
 today were.PL received.PSV.PL newspapers.MPL.NOM
 ‘Some newspapers were received today.’

Regardless of the word order, the verb agrees with the nominative argument.

The synthetic passive construction, which is only used with imperfective verbs, is formed by adding the reflexive suffix *-sja* to the verb. Just as with the periphrastic passive, the nominative argument can appear either before the verb, as in (70), or after it, as in (71).

(70) *Dom* *stroilsja* (*Vanej*) *dva* *goda.*
 house.MSG.NOM built.PSV.MSG Vanya.MSG.INST two.ACC years.MSG.GEN
 ‘The house was being built (by Vanya) for two years.’ (Babyonyshev & Brun, 2004)

(71) *Zdes' prodaëtsja* *vino.*
 here sells.PSV.3SG wine.NSG.NOM
 ‘Wine is sold here.’

Again, the word order has no effect on the verbal agreement possibilities—the verb always agrees with the nominative argument.

³ In many of the examples presented here, I have added a prepositional phrase or an adverbial in sentence-initial position in order to avoid verb-initial orders. The VS(O) order is associated with narrative contexts and polarity focus; that is, the entire sentence is focused (King, 1995). By contrast, in the XP-V-S order, the XP may represent a situational topic, with V-S serving as the focus. This order more closely parallels the SV sentences, in which the S serves as the topic and the V as the focus.

2.2.1.3 Clauses with unergative verbs

Intransitive verbs are traditionally classified as unergative or unaccusative, based on Perlmutter's (1978) hypothesis that intransitive verbs are of two types that have different syntactic representations. The sole argument of an unaccusative verb has syntactic properties in common with the direct objects of transitive verbs: only direct objects or the argument of an unaccusative verb can be cliticized by partitive *ne* in Italian (Rosen, 1984; Burzio, 1986, Chapter 1)⁴ or be directly modified by a resultative phrase in English (Levin & Rappaport Hovav, 1995, Chapter 2). By contrast, the sole argument of an unergative verb has syntactic properties in common with subjects of transitive verbs, such as the ability to appear in the impersonal passive in Dutch (Perlmutter, 1978, cf. Zaenen, 1993). As mentioned in Section 1.3.2, this syntactic distinction is associated with a semantic distinction as well, with the sole argument of an unaccusative verb generally considered to be a patient or theme, and the sole argument of an unergative verb generally considered to be an agent, at least for the most canonical unergative verbs.

Russian clauses with verbs that are traditionally considered to be unergative take a single argument marked with nominative case. The argument may occur preverbally, as in (72), or postverbally, as in (73).

(72) *Anna zvonila.*
 Anna.FSG.NOM called.FSG
 'Anna called.'

(73) *Segodnja zvonila Anna.*
 today called.FSG Anna.FSG.NOM
 'Anna called today.'

For Russian, the unergative class is said to include *zvonit'* 'call', *igrat'* 'play', *pet'* 'sing', *svistel'* 'whistle', and *smejat'sja* 'laugh', among others (Babby, 1980; Pesetsky, 1982; Babyonyshev, 1996; Harves, 2003).

⁴ But see Lonzi (1986) and Maling & Calabrese (2009).

2.2.1.4 Clauses with unaccusative verbs

Russian clauses with verbs that are traditionally considered to be unaccusative also take a single argument that is marked with nominative case. This nominative argument may occur preverbally, as in (74), or postverbally, as in (75).

(74) *Otvet prišël.*
 answer.MSG.NOM arrived.MSG
 ‘The answer came.’

(75) *Segodnja prišël otvet.*
 today arrived.MSG answer.MSG.NOM
 ‘The answer came today.’

The unaccusative class of verbs in Russian is said to include *priiti* ‘arrive’, *pojavljať sja* ‘appear’, *padat’* ‘fall’, *rasti* ‘grow’, *stojat’* ‘stand’, and *tonut’* ‘drown/sink’, among others (Babby, 1980; Pesetsky, 1982; Babyonyshev, 1996; Harves, 2003).

2.2.2 Analyses of non-canonical word orders

How is the word order variability demonstrated above to be accounted for? One option is to propose a “flat” constituent structure for the Russian phrase and clause, an option which many researchers have convincingly argued against (Pesetsky, 1982; Bailyn, 1995; King, 1995). A second option is to say that the word orders are not related to one another via syntactic movement, but rather that each argument is base-generated in its surface position (Bošković & Takahashi, 1998); this analysis is inappropriate for Russian (Bailyn, 2001). A third alternative is that each non-canonical word order variant is syntactically derived from a basic word order (SVO in the case of Russian); a related fourth possibility is that the orders are derived post-syntactically in the phonological component of the grammar. I illustrate how proposals that rely on syntactic and post-syntactic movement derive the relevant word order variants. The ultimate goal is to determine the syntactic positions occupied by nominative arguments in Russian throughout the derivation.

2.2.2.1 “Free” word order and (non)-configurationality

Given the word order flexibility demonstrated above, one might assume that Russian word order is entirely “free”—that elements of the sentence can appear in any order. To account for this, one might propose a “flat” structure for Russian, in which every lexical category is projected only one level, with the only constituent being a full clause, as has been proposed for Warlpiri (see Hale, 1983). However, Russian word order is not totally *free*, but instead it can be described as highly *variable* or *flexible*—where the distinction is that not every logically possible word order is allowed. Furthermore, there is overwhelming evidence that Russian is a configurational language, in which constituents nest inside one another to form hierarchical syntactic relationships (Pesetsky, 1982; Bailyn, 1995; King, 1995).

Evidence that Russian word order is not “free” comes from the nominal domain, which exhibits less flexible word order than does the clausal domain. Word order variants within the noun phrase can produce truth-conditionally different meanings. In a canonical noun phrase in which the noun is quantified by a numeral, as in (76), the numeral precedes its noun; the reverse order, as in (77), indicates an approximate quantity.

- | | | | | | |
|------|----------------------|--|------|-----------------------------|--------------|
| (76) | <i>pjat' čelovek</i> | | (77) | <i>čelovek</i> | <i>pjat'</i> |
| | five person.MPL.GEN | | | person.MPL.GEN | five |
| | ‘five people’ | | | ‘approximately five people’ | |

(Bailyn, 1995, 24)

The difference in meaning is unexpected if elements in a Russian noun phrase can be generated in any order. Further, some word order variants within the noun phrase are ungrammatical. Demonstratives and deictics must occur before their nouns and adjectives, as in (78), cf. (79).

- | | | |
|------|--------------------------|-------------------------------|
| (78) | <i>v te</i> | <i>blagoslovennye vremena</i> |
| | in those.PL.ACC | blessed.PL.ACC times.PL.ACC |
| | ‘in those blessed times’ | |

(Bivon, 1971, 80)

- (79) * *v blagoslovennye te vremena*
 in blessed.PL.ACC those.PL.ACC times.PL.ACC (Bailyn, 1995, 20)

A second piece of evidence concerns the order of an adverbial participle in a dependent clause, when the participle selects an object. In such cases, the participle must precede its object, as in (80), cf. (81).

- (80) [*Vypolniv rabotu*], *Serëža axnul.*
 having.fulfilled.ADV.PTCP work.FSG.ACC Seriozha.MSG.NOM sighed.MSG
 ‘Having done his work, Seriozha sighed.’ (Isačenko, 1966)

- (81) * [*Rabotu vypolniv*], *Serëža axnul.*
 work.FSG.ACC having.fulfilled.ADV.PTCP Seriozha.MSG.NOM sighed.MSG
 (Isačenko, 1966)

The object of *vypolniv* ‘having fulfilled’ must follow it; this is true no matter whether the participle and its object linearly precede the material in the matrix clause (as above), follow the material in the matrix clause, or interrupt it. The rigidity of the order of the participle and its object shows that Russian word order is not entirely free; the fact that the participle must precede its object suggests a basic VO word order.

The fact that certain word order variants are ungrammatical shows that Russian word order is not completely *free*; beyond this, there is strong evidence that Russian clauses have hierarchical structure. For example, the distribution of the reflexive pronoun *sebjä* and the possessive anaphor *svoj* cannot be described without reference to clause boundaries.⁵ *Sebjä* and *svoj* must be bound by an antecedent within their clause, as they are in (82) and (83), respectively (Rappaport, 1986; Bailyn, 1995).

- (82) *Ivan_i ljubit sebja_i.*
 Ivan.MSG.NOM loves.3SG self.A=G
 ‘Ivan_i loves himself_i.’ (Bailyn, 1995, 29)

⁵ See Section 2.4.1 of this chapter for a more detailed analysis of the possessive anaphor *svoj*.

- (83) *Ivan_i ljubit svoju_i daču.*
 Ivan.MSG.NOM loves.3SG self's.FSG.ACC dacha.FSG.ACC
 'Ivan_i loves his_i dacha.'
 (Bailyn, 1995, 29)

The linear order of the reflexive pronoun or anaphor and its antecedent may vary with respect to one another; the sentences in (84) and (85) are OVS variants of (82) and (83), respectively.

- (84) *Sebja_i Ivan_i ljubit.*
 self.A=G Ivan.MSG.NOM loves.3SG
 'Ivan loves himself.'
 (Bailyn, 1995, 29)

- (85) *Svoju_i daču Ivan_i ljubit.*
 self's.FSG.ACC dacha.FSG.ACC Ivan.MSG.NOM loves.3SG
 'Ivan_i loves his_i dacha.'
 (Bailyn, 1995, 29)

The reflexive pronoun and anaphor are not licensed when their antecedents occur outside of the tensed clause in which they appear. In (86) and (87), *sebja* and *svoj* appear within finite embedded clauses and are meant to corefer with the subjects of their respective matrix clauses.

- (86) * *Ivan_i думает, что курение вредно для sebja_i.*
 Ivan.MSG.NOM thinks.3SG that smoking.NSG.NOM harmful.NSG for self.GEN
 intended: 'Ivan_i thinks that smoking is harmful for himself_i.'
 (Bailyn, 1995, 29)

- (87) * *Ivan_i думает, что курение вредно для svoego_i дома.*
 Ivan.MSG.NOM thinks.3SG that smoking.NSG.NOM harmful.NSG for self's.GEN
 house.MSG.GEN
 intended: 'Ivan_i thinks that smoking is harmful for his_i house.'
 (Bailyn, 1995, 29)

Even though *sebja* and *svoj* can linearly precede or follow their antecedents, their distribution indicates that Russian is configurational: in order to describe their distribution, one must make reference to the boundary of the embedded clause.

Similarly, there are subject-object asymmetries concerning pronoun and anaphor binding. An anaphor serving as the subject of a transitive verb cannot be bound by the object, as in (88), nor can the antecedent of *sebja* be embedded within the phrase serving as the subject, as in (89).

- (88) * *Svoj_i dom volnuet Ivana_i.*
 self's.MSG.NOM house.MSG.NOM worries.3SG Ivan.MSG.A=G
 'His_i house worries Ivan_i.' (Bailyn, 1995, 30)

- (89) * *Rasskaz ob Ivane_i ne volnuet sebja_i.*
 story.MSG.NOM about Ivan NEG worries.3SG self.A=G
 'The story about Ivan_i doesn't worry him_i.' (Bailyn, 1995, 30)

The ungrammaticality of these examples can be explained by appealing to the configurational notion of c-command: α c-commands β iff all nodes that dominate α dominate β , and neither α nor β dominates the other. If we assume that the verb and direct object form a constituent to the exclusion of the subject, then the subject c-commands the object, but not vice versa. If we further assume that *svoj* must corefer to a c-commanding antecedent, the ungrammaticality of (88) is explained. In (89), we might assume that the prepositional phrase *ob Ivane* 'about Ivan' forms a prepositional phrase constituent that is sister to *rasskaz* 'story'. In that case, *Ivane* would not c-command *sebja*, leading to the unacceptability of (89).

Further evidence that Russian is configurational comes from the coordination of constituents, semantic ambiguity arising from the attachment site of prepositional phrases, the distribution of negation markers, the movement of a verb in a question formed with the question particle *li*, superiority effects in *wh*-questions, and subject-object asymmetries in the genitive of negation construction and distributive *po* phrases (Pesetsky, 1982; Bailyn, 1995; King, 1995). The evidence overwhelmingly supports the conclusion that Russian is a configurational language, and that, therefore, the word order variants discussed above cannot be attributed to a flat structure. The next sections discuss some of the possible ways that the word order variants could be related to one another.

2.2.2.2 Base-generation of word order variants

Within the generative tradition, word order variation of the kind exemplified in Section 2.2.1 was first treated by Ross (1967, Chapter 3), who coined the term “scrambling” to describe the re-ordering of major constituents within the clause. For Ross, a single basic word order exists at Surface Structure, and the other variants are derived from that order in the “stylistic component” of the grammar; see also Harada (1977) and Saito (1985, 1989, 1992) for analyses in which surface word order variants are derived from an underlying word order. In modern formulations, the verb’s arguments are assigned θ -roles in their canonical argument positions, in accordance with some version of the Uniformity of Theta-Assignment Hypothesis (Baker, 1988), then move to higher syntactic positions in which they are ultimately pronounced. As an alternative to this traditional approach, some researchers propose that non-canonical word order variants are the result of arguments being base-generated in different orders (Neeleman, 1994; Bošković & Takahashi, 1998; Fanselow, 2001; Bošković, 2004).

For example, Bošković & Takahashi (1998), looking primarily at word order variants in Japanese in which constituents appear to move across clause boundaries, argue that word order variation in scrambling languages is derived without syntactic movement. In their view, it is theoretically undesirable to suppose that overt syntactic movement can be optional, having no semantic or syntactic motivation. The solution for Bošković & Takahashi, then, is that each apparently scrambled element is base-generated in the position in which it is ultimately pronounced. In such positions, the elements do not receive θ -roles; they must therefore undergo obligatory lowering at LF into θ -positions to receive their θ -roles. At LF, the arguments occupy canonical argument positions and are interpreted there.

As evidence for their analysis, Bošković & Takahashi observe that apparently scrambled elements are interpreted in their θ -positions rather than their surface positions, which they take to indicate that word order variation can be “undone” at LF. For example, in the Japanese sentence (90), the embedded object *wh*-phrase linearly precedes material in the matrix clause, but it must still

be interpreted as having embedded scope. In the same way, in (91), the apparently scrambled quantifier from the embedded clause must scope under the quantifier that serves as the matrix subject, despite linearly preceding the matrix subject. The arrows in (90) and (91) represent the proposed movement at LF.

- (90) *Nani-o John-ga [Mary-ga -katta ka] sitteiru.*
 what-ACC John-NOM Mary-NOM bought Q knows
 ‘John knows what Mary bought.’ (Bošković & Takahashi, 1998)

- (91) *Daremo-ni dareka-ga [Mary-ga -atta to] omotteiru.*
 everyone-DAT someone-NOM Mary-NOM met that thinks
 = ‘Someone thinks that Mary met everyone.’ SOME > ALL
 ≠ ‘For every person, there is someone who thinks Mary met him.’ *ALL > SOME
 (Bošković & Takahashi, 1998)

Under Bošković & Takahashi’s account, the apparently scrambled elements obligatorily lower to their canonical argument positions at LF, where they are interpreted; this forces the embedded interpretation of the *wh*-element in (90) and of the quantifier in (91). The fact that the apparently scrambled phrases must be interpreted in their base-generated positions contrasts with behavior typically associated with *wh*-movement and topicalization, in which moved elements are typically interpreted in their surface positions. If apparent scrambling, like *wh*-movement and topicalization, is a form of A’-movement, we would not expect obligatory reconstruction.

In a critical response to the proposal that apparently scrambled elements are base-generated in their surface position, Bailyn (2001) and Boeckx (2003) present evidence from Russian and Japanese, respectively, in support of the traditional view that word order variation is derived by syntactic movement. Bailyn shows that, in contrast to Japanese, Russian word order variation has an effect on the scope-taking possibilities of the putatively scrambled elements. Sentence (92) represents a canonical, unscrambled word order in which a universal quantifier appears inside an embedded clause; the only possible interpretation is one in which the embedded universal quantifier

scopes under the matrix subject. In (93), in which the universal quantifier linearly precedes the matrix subject, it must be interpreted as scoping over the matrix subject.⁶

- (92) *Kto-to* *xočet*, *čtoby Boris uvidel [každygo mal'čika]*.
 someone.MSG.NOM wants.3SG that Boris saw.MSG every boy.MSG.A=G
 = 'Someone wants Boris to see every boy.' SOME > ALL
 ≠ 'For every boy, there is someone who wants Boris to see him.' *ALL > SOME
 (Bailyn, 2001)

- (93) *[Každygo mal'čika]_i* *kto-to* *xočet*, *čtoby Boris uvidel t_i*.
 every boy.MSG.A=G someone.MSG.NOM wants.3SG that Boris saw.MSG
 = 'For every boy, there is someone who wants Boris to see him.' ALL > SOME
 ≠ 'Someone wants Boris to see every boy.' *SOME > ALL
 (Bailyn, 2001)

If we were to apply Bošković & Takahashi's analysis to Russian word order variation, the universal quantifier in (93) should lower at LF to its canonical argument position inside the embedded clause. From that position, it should scope under the matrix subject, contrary to observation.

Similarly, the application of Bošković & Takahashi's analysis to Russian makes predictions about anaphoric binding patterns that are not borne out. In (94), an argument containing an R-expression is putatively scrambled above a pronoun that corefers with the R-expression. Under Bošković & Takahashi's account, this should trigger a Principle C violation.

- (94) *On [slux* *o Marii_i]_k* *xočet*, *čtoby ona_i uslyšala t_k*.
 he rumor.MSG.ACC about Mary.FSG.LOC wants.3SG that she heard.FSG
 'He wants her_i to hear a rumor about Mary_j.' (Bailyn, 2001)

If the argument containing the R-expression were to lower to its canonical argument position at LF,

⁶ The scrambling analysis of sentence (93), in which the universal quantifier has moved from inside the embedded clause, might predict that the sentence should have the SOME > ALL interpretation; the existential quantifier could undergo reconstruction back to its base-generated position inside the embedded clause at LF, where it would be interpreted. In Russian, however, speakers usually prefer surface scope readings of quantifiers in both canonical and non-canonical word orders (Ionin, 2001).

it would be interpreted there. Then, because the pronoun would c-command the R-expression at LF, a Principle C violation would occur. By contrast, under an analysis of word order variation that treats variants as related by syntactic movement, the argument containing the R-expression comes to c-command the pronoun over the course of the derivation. No Principle C violation is predicted to occur, consistent with the acceptability of (94).

Bailyn also shows that Bošković & Takahashi's analysis incorrectly predicts that only arguments should be able to appear outside of their canonical position. If movement at LF is motivated by θ -role assignment, then non-arguments have no motivation to move at LF to their canonical position; they should therefore be interpreted in their surface position. As shown in (95), non-arguments can appear in non-canonical positions in Russian, while still being interpreted in their base position.

- (95) *Ja zelënuju xočy, čtoby ty kupila [t_i knigu].*
 I green.FSG.ACC want.1SG that you.2SG bought.FSG book.FSG.ACC
 'I want you to buy a green book.' (Bailyn, 2001)

In (95), an adjective modifying the embedded object linearly precedes material in the matrix clause. An account of word order variation that relies on LF movement to θ -positions does not straightforwardly explain this possibility.

Other authors, such as Bailyn (1995, 2001), King (1995), Sekerina (1997), Slioussar (2007), and Dyakonova (2009) maintain that at least some word order variants are derived via syntactic movement. For example, Bailyn (1995) shows that word order variation in Russian with (putative) long-distance scrambling exhibits properties parallel to *wh*-movement, and argues that this type of word order variation is therefore best analyzed as a form of *A'*-movement. Evidence for this claim is that neither *wh*-movement nor putative scrambling can occur across a noun phrase boundary, as in (96) and (97), respectively.

- (96) * *Kogo ty pozvonil [agentu kotoryj ljubit]_{NP} ?*
 who.MSG.A=G you phoned.MSG spy.MSG.DAT which loves.3SG
 intended: 'Whom did you phone a spy who loves?' (Bailyn, 1995, 235)

- (97) * *Borisa ty pozvonil [agentu kotoryj ljubit _]_{NP}!*
 Boris.MSG.A=G you phoned.MSG spy.MSG.DAT which loves.3SG
 intended: ‘It’s BORIS you phoned a spy who loves!’ (Bailyn, 1995, 235)

Similarly, neither a *wh*-phrase nor the putatively scrambled element can move out of a finite embedded clause headed by the complementizer *čto*, as in (98) and (99), respectively.

- (98) * *Kogo_i ty dumaeš, [čto Ivan ljubit t_i]_{CP}?*
 who.MSG.A=G you think.2SG that Ivan.MSG.NOM loves.3SG
 intended: ‘Who do you think that Ivan loves?’ (Bailyn, 1995, 237)

- (99) * *Borisa_i Marina znaet, [čto Ivan ljubit t_i]_{CP}.*
 Boris.MSG.A=G Marina knows.3SG that Ivan.MSG.NOM loves.3SG
 intended: ‘Marina knows Ivan loves BORIS.’ (Bailyn, 1995, 237)

Bailyn (1995, 2001) argues that further parallels between *wh*-movement and putative scrambling motivate a shared analysis. Neither *wh*-movement nor scrambling is possible out of a subjunctive embedded clause headed by the complementizer *čto* by when the embedded clause serves as an adjunct to the matrix verb, but both are possible when an embedded clause serves as an argument to the matrix verb. In comparison constructions, neither type of movement is possible when the moving element is a nominative-marked noun that serves as the standard of comparison preceded by *čem* ‘than’, but both are possible when the noun serving as the standard of comparison appears without *čem* and is marked with genitive case. Similarly, neither *wh*-movement nor putative scrambling can apply to the specifier of an embedded subject or to modifiers of noun phrases. These parallels constitute evidence that scrambling is derived via syntactic movement, and that long-distance scrambling, like *wh*-movement, is movement to an A’-position.⁷

⁷ Researchers differ in whether clause-internal scrambling receives the same kind of analysis as long-distance scrambling. Mahajan (1990), working with Hindi data, argues that long-distance scrambling is A’ movement, while clause-internal scrambling can be to either an A- or A’-position. This brings up the possibility that, in Russian, clause-internal scrambling may have different properties from long-distance scrambling. For example, Bailyn (2004) argues that non-nominative arguments move to the specifier of TP in their clause in order to satisfy the EPP requirement on T in Russian, giving those arguments subject properties.

2.2.2.3 Deriving SV(O) and (O)VS via syntactic movement

The existence of languages with highly variable word order presents a challenge to approaches like Minimalism, in that syntactic movement must be well-motivated and never optional (Chomsky, 1995; Adger, 2003). Many analyses of variable word order in Russian propose that at least some word orders are derived by overt syntactic movement (Bailyn, 1995, 2001, 2004; King, 1995; Kondrashova, 1996; Junghanns & Zybatow, 1997; Sekerina, 1997; Slioussar, 2007, 2011; Dyakonova, 2009). These analyses differ in what they take to be the basic word order of the Russian clause, what motivates the movement of constituents, and what syntactic positions those constituents occupy. Here I outline three specific proposals: King (1995), in which Russian is underlyingly a VSO language, and syntactic movement is motivated by discourse function; Bailyn (1995), in which Russian is underlyingly an SVO language, and OVS sentences are derived by a combination of adjunction and EPP-based movement; and Slioussar (2007, 2011), in which the derivation of VS sentences differs depending on the base-generation site of the S argument.

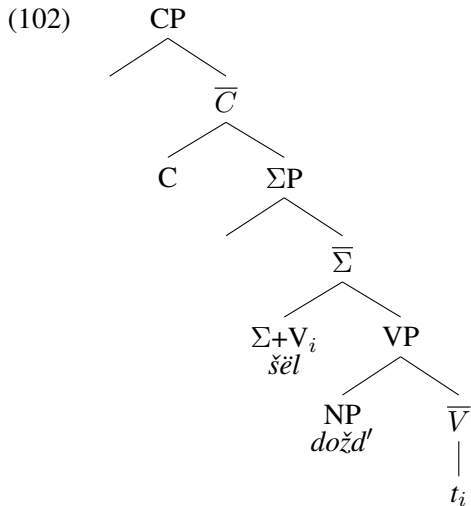
Going against the traditional classification of Russian as an SVO language, King (1995) argues that Russian is a VSO language. In VS(O) sentences, as in (100) and (101), the entire sentence bears focus.

- (100) *Šel dožd'.*
 went.MSG rain.MSG.NOM
 ‘It was raining.’ (King, 1995, 93)

- (101) *Neslyšno proletala kakaja-to neizvestnaja ptica.*
 noiselessly flew.FSG some.FSG.NOM unknown.FSG.NOM bird.FSG.NOM
 ‘Some type of unknown bird flew noiselessly past.’ (King, 1995, 93)

For King, the subject’s base position is the specifier of VP, and it may remain *in situ*. The finite verb always raises from V to a head Σ just above V. The head Σ is equivalent to I or T plus a potential Neg element. The object’s base position is sister to V, and it also remains *in situ*. In VSO sentences, then, the arguments remain *in situ*, and the verb is the only element that has moved. Sentence (100)

could be represented as in the tree in (102).

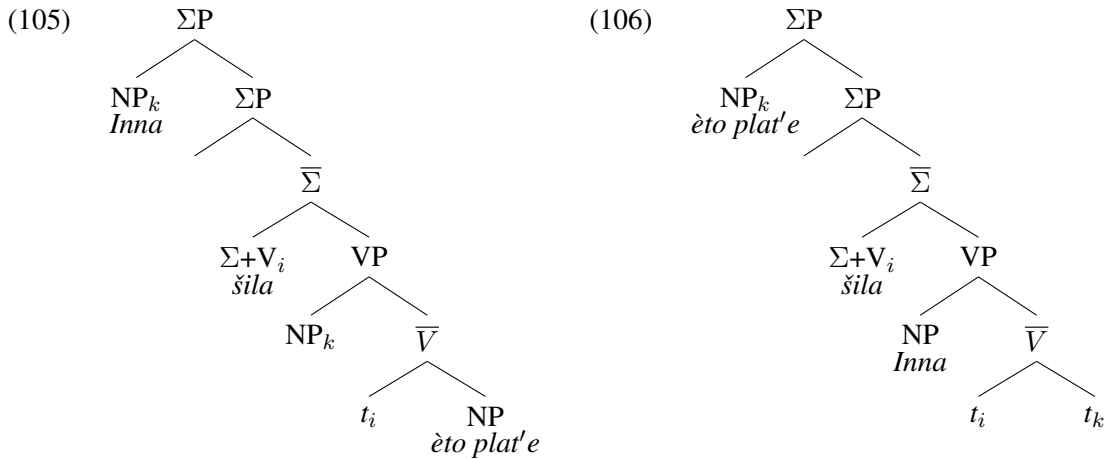


On King's analysis, syntactic positions correspond to discourse functions. For her, the specifier of ΣP (equivalent to the specifier of TP) is not a subject position, but instead a contrastive focus position. Internal topics are adjoined to ΣP . The specifier of CP houses *wh*-words, and a projection over CP houses a second (external) topic, which is base-generated as specifier.

In King's system, discourse conditions generally require that some element be interpreted as a topic; this will usually be the subject. For her, SVO sentences, as in (103), are derived via the adjunction of the subject to ΣP , which is the internal topic position. The verb sits in Σ , and the object remains in its base-generated position, resulting in SVO order. The derivation of (103) is illustrated in (105). If the object, rather than the subject, serves as the topic of discourse, it will move from complement of V to be adjoined to ΣP . The verb, having moved to Σ , precedes the subject, which sits in its base-generated position in the specifier of VP ; this results in OVS order, as in (104). A derivation of (104) is shown in (106).

- (103) *Inna šila èto plat'e.*
 Inna.FSG.NOM sewed.FSG this.NSG.ACC dress.NSG.ACC
 'Inna sewed this dress.'

- (104) *Èto plat'e šila Inna.* (King, 1995, 101)



In this way, King is able to account for many of the word order variants in Russian. Her analysis captures the correspondence between different linear positions and the discourse status of constituents that appear there: topics appear in sentence-initial position, and focused elements appear in sentence-final position.

Other researchers contest King's analysis, arguing that Russian cannot be a VSO language, and presenting alternative accounts in which scrambling is the result of syntactic movement of elements from an underlying SVO order. Bailyn (1995) shows that King's derivations of word order variants crucially rely on the movement of the finite verb from V to the higher head Σ (in his terms, I), over the subject. This V-to-I movement has also been proposed to account for the word order of surface VSO languages like Welsh and Irish (Sadler, 1988; McCloskey, 1991); however, Bailyn shows that Russian is typologically unlike surface VSO languages with respect to several Greenbergian universals (Greenberg, 1963). For example, VSO languages do not have fixed-position question particles, whereas Russian has the second-position clitic *li* in embedded questions; VSO languages often have sentence-initial question particles, which Russian lacks; VSO languages usually have postnominal adjectives, while Russian has prenominal adjectives; and finally, in VSO languages, word order in the double object construction and word order with auxiliaries differ from their analogues in Russian.

It is also fruitful to compare Russian to languages that are not classified as VSO, but in which V

is said to move to I, such as French (Pollock, 1989). French adverbs follow their verbs, as in (107), whereas Russian adverbs, like their English counterparts, usually precede their verbs, as in (108).

- (107) *Jean (*souvent) embrasse souvent Marie.*
 Jean often kisses.3SG often Marie
 ‘Jean often kisses Marie.’ (Pollock, 1989)

- (108) *Lena xorošo govorit (*xorošo) po-francuzski.*
 Lena.NOM well speaks.3SG well French
 ‘Lena speaks French well.’ (Erechko, 2003)

The traditional interpretation of these facts is that the French verb raises from V over the adverb to land in I, while the English verb remains *in situ*, never raising over the adverb (Pollock, 1989). Additionally, the position of floating quantifiers is consistent with the analysis that V does not move to I in Russian. If a quantifier modifying the subject of a clause can be stranded after the verb, it could indicate that the verb has moved over the position of the subject. Russian quantifiers modifying the subject can immediately follow the subject, but they cannot follow the verb, as in (109).

- (109) *Mal'čiki (vse) pročitali (*vse) étu knigu.*
 boys.NOM all.NOM read.PL all.NOM this.ACC book.ACC
 ‘The boys all read this book.’ (Erechko, 2003)

These facts support the claim that the Russian verb does not move to I.

Finally, King’s analysis makes an incorrect prediction about the position of object pronouns when the subject has contrastive focus; for her, a contrastively focused subject, which occupies the specifier of ΣP , should follow a (topical) object pronoun, which adjoins to ΣP . However, the reverse order is observed, as in (110).

- (110) Q: *Kto videl Ivana?* ‘Who saw Ivan?’
BORIS ego videl.

Boris.MSG.NOM him.3SG.A=G saw.MSG

‘BORIS saw him.’

(Bailyn, 1995, 60)

On the basis of this and other data, Bailyn (1995) concludes that the finite verb in Russian does not move to I, that Russian is not a VSO language, and that a different account of variable word order in Russian is necessary.

While Bailyn rejects the proposal that the Russian verb raises as far as I, he does argue that the verb must raise to a position higher than V. Under his analysis, the finite verb moves from V, but only as high as a functional head Pred, situated just above V and below I in the clausal spine.⁸ Bailyn presents evidence from coordination that indicates a landing site for the finite verb above V. For example, a sentence like (111) contains two coordinated VPs, each with an accusative object and a small clause adjunct, but only one finite verb.⁹

- (111) *My našli_i [Sašu t_i p'janym]_{VP} a [Borisa t_i trezvyim]_{VP}.*

we found.PL Sasha.ACC drunk.INST but Boris.A=G sober.INST

‘We found Sasha drunk but Boris sober.’

(Bailyn, 1995, 48)

If the verb(s) originate inside the coordinated VPs, there must be a higher projection to which they move, via Across-the-Board extraction; if there were no such position, sentences like (111) would be ungrammatical. Sentence (112) is similar, but because the main verb occurs in the infinitive form and follows an auxiliary, we can assume that it does not sit in I; instead, the verb must be in a position between the auxiliary and V.

⁸ More recent work supports the claim that the Russian verb moves at least as high as Asp, situated above *v* (Babko-Malaya, 2003; Griбанова, 2013). I discuss this claim further in Section 4.4.1, where it is crucial to my analysis of first conjunct agreement.

⁹ In (111), the coordinator *a* is glossed as ‘but’, but it can also be accurately glossed as ‘and’, as it is in Bailyn’s examples in footnote 10. In these instances, *a* is used to indicate juxtaposition or comparison of two situations (see Jasinskaja & Zeevat, 2008).

- (112) *Petja budet klasť [knigi t_i na stol segodnja]_{VP} i*
 Petya.MSG.NOM will.3SG put.INF books.FPL.ACC on table today and
[plastinki t_i na stul zavtra]_{VP}.
 records.FPL.ACC on chair tomorrow
 ‘Petya will put books on the table today and records on the chair tomorrow.’
 (Bailyn, 1995, 49)

Movement of the verb from V to a higher head like Pred explains the grammaticality of sentences like (111) and (112).¹⁰

Given this analysis of verb movement, Bailyn derives SVO and OVS orders quite differently from King. For Bailyn, the underlying structure of the Russian clause is SVO. The subject is initially merged in specifier of PredP and the direct object is merged as the specifier of VP.¹¹ His account of SVO word order is illustrated in (115) using the SVO sentence from above, in (103). For OVS

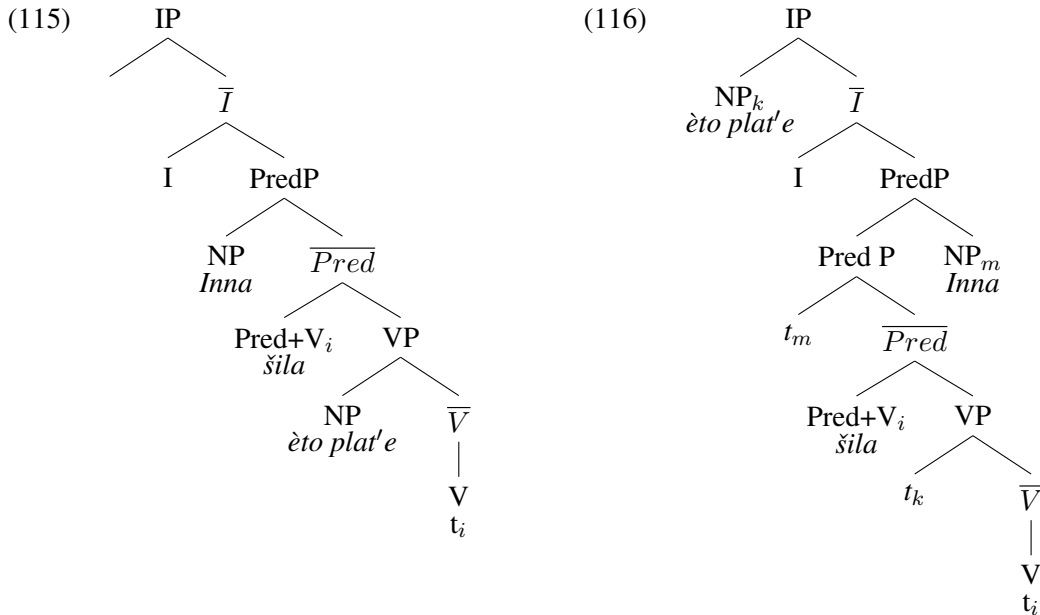
¹⁰ One might object that (111) and (112) could be analyzed as having conjoined verb phrases in which the second verb phrase contains a gapped verb, rather than having two verbs that have moved Across-the-Board to a higher syntactic position. Bowers (1993) argues that in English, gapping is ungrammatical when the conjunct containing the gapped verb contains more than two other constituents; according to Bailyn (1995, 48-49), the same is true for Russian, as in (113) and (114).

- (113) **Maria položila knigi na stol a Nataša ∅ gazety na*
 Maria.FSG.NOM put.FSG books.FPL.ACC on table but Natasha.FSG.NOM newspapers.MPL.ACC on
stul.
 chair
 ‘Maria put the books on the table and Natasha the newspapers on the chair.’ (Bailyn, 1995, 49)
- (114) **Maria našla Sašu p’janym a Nataša ∅ Borisa*
 Maria.FSG.NOM found.FSG Sasha.MSG.ACC drunk.MSG.INST but Natasha.FSG.NOM Boris.A=G
trezvym.
 sober.MSG.INST
 ‘Maria found Sasha drunk and Natasha Boris sober.’ (Bailyn, 1995, 49)

If this generalization is correct, then a gapping analysis of (112) would actually predict it to be ungrammatical. Therefore, Bailyn concludes, (112) is a genuine case of Across-the-Board extraction of the verb into a higher syntactic position.

¹¹ Bailyn (1995) makes the unconventional claim that the direct object is merged as the specifier of VP, rather than the complement of V, because, for him, the complement of V is the position of the indirect object. He motivates this choice by arguing that the direct object c-commands the indirect object in Russian, resulting in asymmetries between the direct object and indirect object with respect to anaphoric binding, quantifier scope, and control in instrumental small clauses. More recent work (Junghanns & Zybatow, 1997; Pereltsvaig, 2001; Slioussar, 2007; Dyakonova, 2009) argues for the alternative, more standard, analysis that the indirect object is introduced in a higher syntactic position than the direct object (cf. Bailyn, 2010).

structures, Bailyn argues that the subject extraposes, right-adjoining to the PredP, and that the object moves to the specifier of IP, where it is interpreted as a topic. This is illustrated in (116) using the OVS sentence (104).

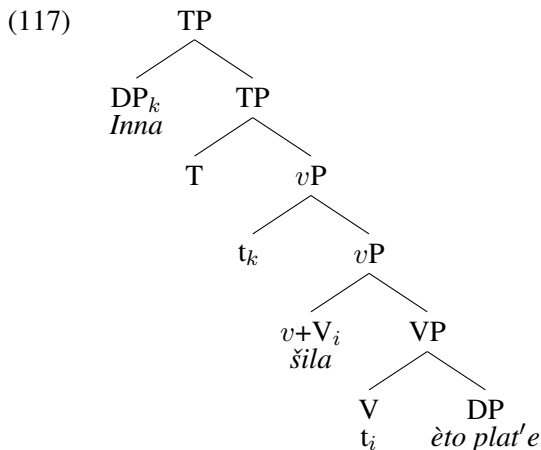


Bailyn (2004) argues that OVS order, as in (116), results from the Extended Projection Principle (EPP), which forces movement of some element into the specifier position of I/T.¹² Under this analysis, many kinds of elements can fulfill the EPP requirement on T in Russian, including non-nominative noun phrases and prepositional phrases. This analysis aligns with others in which non-nominative XPs in Russian may satisfy the EPP by moving to the specifier of TP, potentially leaving a nominative argument in a low clausal position (Babyonyshev, 1996; Lavine, 1998; Babyonyshev et al., 2001; Lavine & Freidin, 2002).

A third account of variable word order in Russian comes from Slioussar (2007, 2011), who also takes SVO to be the underlying word order in Russian. In contrast to Bailyn (2004) and others for whom XPs of any case can satisfy the EPP in Russian by moving to the specifier of TP, she argues that only nominative arguments may do so. For her, then, specifier of TP is either filled

¹² Bailyn's (2004) account of OVS orders differs from his (1995) account—in the former, he argues that the verb *does* move from V to I/T, but only in scrambled orders. That is, the verb moves from V to T in OVS order, as in (116), but not in SVO order, as in (115).

by a nominative argument or by a covert expletive. In a canonical SVO sentence, the nominative argument is merged as the specifier of *vP* and moves to the specifier of TP, while the accusative argument remains *in situ* as complement of the verb. A derivation of a canonical SVO sentence is illustrated in (117), again using the sentence (103).

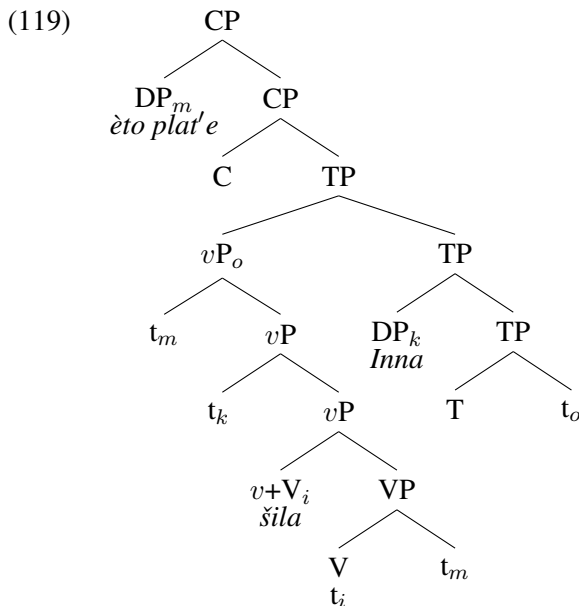


One of the novel proposals that Slioussar makes is that internal and external nominative arguments in Russian have different requirements for movement. Under her analysis, arguments that are initially merged as internal arguments only optionally raise to the specifier of TP, while external nominative arguments do so obligatorily. Once an external argument has moved to the specifier of TP, it need not stay there, but may move to an even higher syntactic position in which it will be pronounced. The result of this system is that, for Slioussar, not all subject-final word orders are derived in the same way.

Specifically, in the derivation of OVS order, for example, the external argument moves to the specifier to TP. Then, the *vP* moves to a second, higher specifier of TP. Slioussar argues that the entire *vP*, not just the verb, moves to this higher syntactic position. Evidence for this claim comes from the behavior of manner adverbs, which are thought to be adjoined to *vP*. Such adverbs appear preverbally in OVS sentences, as in (118).

- (118) *Èto v'juščeesja rastenie xorošo znali drevnie rimljane.*
 this.ACC creeping plant.ACC well knew.PL ancient.NOM romans.NOM
 'This creeping plant was well known to ancient Romans.' (Slioussar, 2007, 146)

Manner adverbs, adjoined to *vP*, raise along with the *vP* to the specifier of TP, resulting in their preverbal position. Finally, the object moves (via remnant movement) from its position inside the *vP* to a specifier in the C domain. The derivation of an OVS sentence is illustrated in (119), again using the sentence (104).



Internal arguments are treated differently from external arguments under Slioussar's analysis. For her, internal nominative arguments need not raise to the specifier of TP but may remain *in situ*. This means that, when the sole argument of an unaccusative verb follows the verb, as in (75), repeated below as (120), the argument has not risen to the specifier of TP, but remains as a complement to the verb.

- (120) *Segodnja [prišël otvet]_{VP}.*
 today arrived.MSG answer.MSG.NOM
 'The answer came today.'

Slioussar (2011) motivates the idea that internal arguments may stay *in situ* by contrasting the behavior of internal and external nominative arguments, when they appear postverbally, with respect to their ability to bind anaphors and scope over *vP*-level modifiers. I return to this analysis in Section 2.5.1, where I argue that such internal nominative arguments *do* move to the specifier of TP, albeit covertly.

While the three proposals presented in this section differ with respect to the proposed underlying word order of Russian, the motivation for the movement of arguments, and the landing sites of the verb and its arguments, all three maintain that word order variation in Russian is due to movement of the verb and/or its arguments in the syntax proper.

2.2.2.4 Post-syntactic approaches to word order variation

Another family of approaches to word order variation posits that non-canonical word orders can result from post-syntactic operations (Hoffman, 1996; van Gelderen, 2003; Erteschik-Shir & Strahov, 2004). For example, for Erteschik-Shir & Strahov (2004), word order variation can arise from the movement of constituents in the phonological component. They propose that Topic and Focus features are assigned to the output of the narrow syntax, and that movement of the topic and focus constituents can take place early in PF. After the topic and focus constituents are marked as such, the only syntactic structures that remain visible are the edges of the merged constituent, and, potentially, the edges of some other phrases, the identity of which is language-specific. In Russian, Erteschik-Shir & Strahov argue, the edges of the VP are marked. The Phonological-Syntactic component is sensitive to the Topic and Focus features, allowing constituents with those features to move to any marked edges (i.e. clause-initial, clause-final, and VP-final positions). This, they say, accounts for VP-final focus in Russian.

Alternatively, Hoffman (1996) and van Gelderen (2003) argue that some word orders are the result of the lack of merger in the syntactic component, such that constituents arrive at PF unattached. In Russian specifically, van Gelderen (2003) argues that constituents can undergo Early Spell-Out, meaning that the verb and its arguments are not necessarily merged into a single structure by the

time the derivation reaches PF. In this case, there are no asymmetric c-command relationships between the constituents, so the linearization procedure (Kayne, 1994; Chomsky, 1995) then does not apply (or it applies vacuously). At this point, the information structural component linearly orders the constituents according to the principles that govern it. Van Gelderen argues that VSO, VOS, and OVS¹³ orders in Russian are a result of this process.

Bailyn (2006) points out a number of potential problems with the Early Spell-Out analysis of Russian variable word order, particularly with respect to selection and constituency. The issue of selection is largely theoretical: van Gelderen proposes that selectional relationships are handled at LF, but it is unclear exactly how the selectional process would take place there. Under standard assumptions, selection is handled via feature-checking, and the uninterpretable features that drive selection must be checked before LF (Adger, 2003); van Gelderen's analysis would require a reimagining of the selectional process. The second problem has to do with the constituency of VP and TP in Russian. In an Early Spell-Out structure, a verb and its object, for example, need not form a VP constituent; however, there is evidence for the constituency of the VP, even in the word orders that van Gelderen argues to be derived via Early Spell-Out.

One piece of evidence in favor of VP constituency involves *net* 'not' ellipsis, as shown in (121), in which the verb phrase of the second clause is elided. This kind of ellipsis is possible even when the object of the first clause is topicalized—on Bailyn's (2006) analysis, an instance of A'-movement—resulting in OSV order, as in (122).

- (121) *Ivan* [pošel domoj], a *Maša* net.
 Ivan.MSG.NOM went.MSG home but Masha.FSG.NOM NEG
 'Ivan went home but Masha didn't (go home).' (Bailyn, 2006)

- (122) *Knigu* [Ivan čital __] a *Maša* net.
 book.FSG.ACC Ivan.MSG.NOM read.MSG but Masha.FSG.NOM NEG
 'A book, Ivan read, but Masha didn't (read a book).' (Bailyn, 2006)

¹³ Van Gelderen makes a distinction between OVS orders in which there is an intonational pause after the object, and those without such a pause. For her, the variant without a pause is derived via Early Spell-Out, while the variant with a pause can be derived via regular structure building, including syntactic movement.

Net ‘not’ ellipsis is not acceptable, however, when the first clause appears in OVS order, as in (123).

- (123) ?? *Knigu_k čital_i [Ivan t_i t_k] a Maša net.*
 book.FSG.ACC read.MSG Ivan.MSG.NOM but Masha.FSG.NOM not
 ‘A book was read by Ivan but Masha didn’t (read a book).’ (Bailyn, 2006)

Bailyn (2006) argues that sentence (123) is ungrammatical because the constituency of the VP has been interrupted by A-movement. If the verb and the object undergo Spell-Out early, however, they would not form a constituent, and the unacceptability of sentence (123) would be unexplained.

An additional prediction of van Gelderen’s analysis is that the relative order of two quantifiers in an Early Spell-Out structure will always be ambiguous. In Russian, however, speakers generally strongly prefer surface scope readings of quantifiers when the intonation is neutral, in both canonical and non-canonical word orders (Ionin, 2001), as illustrated in OVS orders in (124) and (125).¹⁴

- (124) *Odnu devočku videl každyj mal’chik.*
 one.FSG.ACC girl.FSG.ACC saw.MSG every.MSG.NOM boy.MSG.NOM
 = ‘One (particular) girl was seen by every boy.’ ONE>ALL
 ≠ ‘Every boy saw one girl (not necessarily the same one).’ *ALL>ONE
 (Ionin, 2001)

- (125) *Každyju devočku videl odin mal’chik.*
 every.FSG.ACC girl.FSG.ACC saw.MSG one.MSG.NOM boy.MSG.NOM
 ‘Every boy saw one girl (not necessarily the same one).’ ALL>ONE
 ?‘One (particular) girl was seen by every boy.’ ?ONE>ALL
 (Ionin, 2001)

Finally, van Gelderen’s analysis predicts that constituents should not be able to appear outside of their clause due to Early Spell-Out; however, constituents can be extracted outside of finite clauses, as in (126).

¹⁴ The potential wide scope interpretation of the indefinite in (125) does not necessarily indicate quantifier raising; Reinhart (1997) proposes that these readings can be derived via choice functions.

- (126) *paren'*_i *kotorogo*_i *ja xotel* *čtoby* *Maša uvidela* *t*_i
 guy.MSG.NOM whom.MSG.A=G I wanted.MSG that.SBJV Masha see.SBJV.FSG
 ‘the guy whom I wanted Masha to see’ (Bailyn, 1995)

These facts cast some doubt on the Early Spell-Out analysis of word order variation in Russian.

The analyses presented in this section illustrate a variety of ways in which variable word order in Russian can be accounted for. Previous research has demonstrated that variable word order in Russian is not due to non-configurationality—because Russian is configurational—and that it is not due to the availability of multiple base-generation sites for arguments. Instead, word order variants appear to be derived via syntactic movement from a basic SVO word order. For the rest of this chapter, I argue for particular derivations of word order variants. I motivate such derivations from the bottom up, starting with the base-generated position of nominative arguments.

2.3 Base-generated positions of nominative arguments

In this section I examine the base-generation site of nominative arguments in the Russian clause. Using previously-proposed diagnostics of unaccusativity, I review the evidence that there is a difference in the syntactic behavior of the sole direct arguments of unaccusative verbs and the sole direct arguments of unergative verbs in Russian. The sole arguments of unergative verbs pattern together with subjects of canonical active transitive verbs in not bearing genitive case in negated clauses, not being quantified under the distributive preposition *po*, and not being quantified when certain quantificational prefixes appear on the verb. By contrast, the sole arguments of unaccusative verbs pattern together with the direct objects of transitive verbs and the (surface) subjects of passive verbs in that they may bear genitive case in negated clauses, they may be quantified under *po*, and they may be quantified in the presence of the relevant verbal prefixes. Further, the sole arguments of unergative verbs differ from the sole arguments of unaccusative verbs and the subjects of passive verbs in that the latter more readily appear in the locative inversion construction in discourse-neutral

contexts. I take the distinctive behavior of unergative and unaccusative verbs to indicate a difference in syntactic height of the generation site of the arguments of such verbs: the sole argument of an unergative verb originates externally to the verb phrase in the specifier of *v*P, and the sole argument of an unaccusative verb originates internally, as a complement to the verb.

While this section aims to leverage the diagnostics of unaccusativity to determine the syntactic position of the nominative arguments in the clause, it does not discuss the issue of “variable” unaccusative/unergative behavior, which is exhibited by many verbs in Russian. See Chapter 3 for a discussion of such variable behavior, the semantic properties of variable behavior verbs, and the interaction of syntactic unaccusativity with the availability of first conjunct agreement and the genitive of negation.

2.3.1 Genitive of negation

The first syntactic difference between the sole arguments of unaccusative verbs and the sole arguments of unergative verbs in Russian concerns the appearance of genitive case under negation (Chvany, 1975; Timberlake, 1975; Babby, 1980, 2001; Neidle, 1982; Babyonyshev, 1996; Pesetsky, 1982; Brown & Franks, 1995; Brown, 1999; Pereltsvaig, 1999; Abels, 2002, 2005; Partee & Borschev, 2002, 2004, 2007; Harves, 2003). Direct objects of transitive verbs may bear genitive case, rather than accusative case, when they appear under the scope of sentential negation, as in (127).

(127) *Maša ne čitaet nikakix knig.*

Masha.FSG.NOM NEG reads.3SG any.PL.GEN books.FPL.GEN

‘Masha doesn’t read any books.’

Subjects of transitive verbs, however, do not have the ability to appear in the genitive case when the clause is negated, as in (128).

- (128) * *Ni odnoj gazety ne pečataet takuju erundu.*
 not one.FSG.GEN newspaper.FSG.GEN NEG prints.3SG such nonsense
 ‘Not one newspaper prints such nonsense.’ (Pesetsky, 1982, 46)

If the relevant kind of genitive case is assigned only under the scope of negation, and the negation head occupies a position between the subject and the verb, then we expect genitive of negation to appear only on internal arguments.

The sole arguments of unaccusative verbs and the (surface) subjects of passive verbs may receive genitive case under negation, as in (130) and (131). As discussed in Section 3.5.3, clauses with such genitive subjects typically receive an existential interpretation. By contrast, arguments of unergative verbs generally may not bear genitive case under negation, as in (132).¹⁵

- (130) *Gribov v našem lesu ne rastët.*
 mushrooms.MPL.GEN in our forest NEG grows.3SG
 ‘Mushrooms don’t grow in our forest.’

- (131) *Gazet ne bylo polučeno.*
 newspapers.FPL.GEN NEG was.NSG received.PSV.NSG
 ‘No newspapers were received.’

¹⁵ Babby (1980, 2001) presents a set of exceptions to this generalization—the sole argument of some purportedly unergative verbs may bear genitive under negation when the sentences receive existential interpretations, as in (129).

- (129) ... *tam ne rabotaet ni odnogo inženera.*
 there NEG works.3SG not one.MSG.GEN engineer.MSG.GEN
 ‘There hasn’t been a single engineer working there.’ (Babby, 2001)

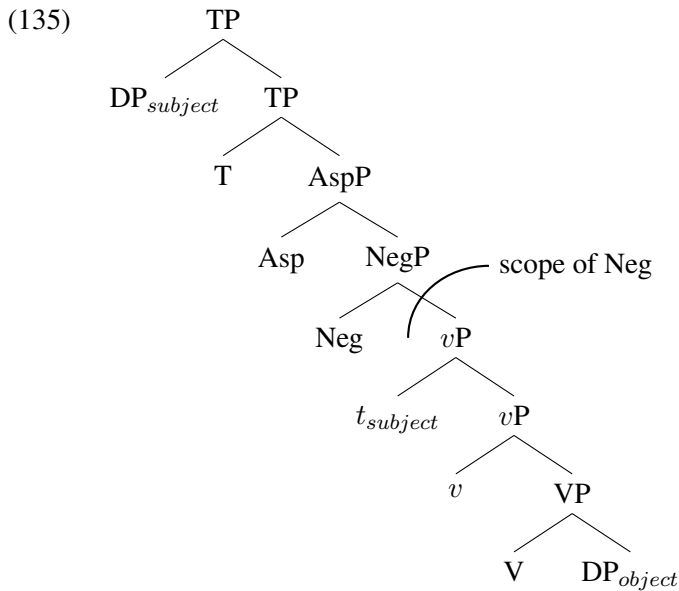
Harves (2003) defends the use of the genitive of negation construction as a diagnostic for internal argumenthood, arguing that putatively unergative verbs appearing with genitive of negation do in fact take an internal argument. Such verbs are “semantically empty”, having lost their agentive meaning, and are interpreted as copular verbs. Building on insights from Hoekstra & Mulder (1990), Borer (1994), Levin & Rappaport Hovav (1995), and Arad (1998), she shows that some verbs that are standardly taken to be unergatives can be “unaccusativized” in certain structures. The idea that Russian unergative verbs can be “unaccusativized” is also defended by Glushan (2013). I take up these issues in more detail in Chapter 3.

- (132) * *Ni odnoj devuški ne pelo.*
 not single.FSG.GEN girl.FSG.GEN NEG sang.NSG
 ‘Not a single girl sang.’ (Harves, 2003)

Genitive of negation also appears in negated clauses with existential verbs, as in (133), and, arguably, on adverbials of duration and measure, as in (134) (Borovikoff, 1997, cf. Franks & Dziwirek, 1993).

- (133) *V gorode ne bylo vrača.*
 in town NEG was.NSG doctor.MSG.GEN
 ‘There was no doctor in town.’
- (134) *Boris ne putešestvoval i nedeli.*
 Boris.MSG.NOM NEG travelled.MSG even week.FSG.GEN
 ‘Boris didn’t even travel a week.’ (Borovikoff, 1997, 67)

Various accounts of the genitive of negation construction have been proposed in the literature (Neidle, 1982; Pesetsky, 1982; Babyonyshev, 1996; Brown & Franks, 1995; Brown, 1999; Pereltsvaig, 1999; Abels, 2002, 2005; Partee & Borschev, 2002, 2004, 2007; Harves, 2003, among many others). Some analyses primarily discuss the semantics of the construction, potentially treating sentences with genitive direct objects as qualitatively different from sentences with genitive (surface) subjects (see especially the discussion in Section 4 of Partee & Borschev (2004)). Analyses that explain the phenomenon by making reference to syntactic structure, rather than the semantics of the construction, vary, but prominent approaches include genitive case assignment by the negation head Neg, or by a null quantifier head within the noun phrase that stands in a licensing relation to Neg. The noun phrase that receives genitive case must appear under the scope of the Neg head, as illustrated in (135).



Under these analyses, there is a difference in the height of base generation site of the sole argument of an unaccusative verb and the sole argument of an unergative verb. The argument of an unaccusative verb is introduced as a complement to the verb, and the argument of an unergative verb is introduced in a higher syntactic position, such as the specifier of *vP*. Analyses vary as to how they rule out genitive case on the sole arguments of unergative verbs—such arguments are either initially merged higher than the Neg head, or they are merged inside the NegP and subsequently move to a higher syntactic position, from which they are ineligible for genitive case assignment. Harves (2003) presents an alternative account, in which external arguments are only licensed by a T that bears full ϕ -features. Since arguments bearing nominative case are the only arguments that control agreement on T, on her account, only nominative arguments can be external arguments. The genitive-marked argument in a genitive of negation construction, then, can never be an external argument. Any of these analytical options would prevent the external argument from surfacing with genitive case. Furthermore, they all rely on the difference in syntactic height of the arguments of unaccusative verbs and the arguments of unergative verbs to explain the data.

2.3.2 *Po* phrases

A second syntactic distinction between the arguments of unergative verbs and the arguments of unaccusative verbs concerns the preposition *po* in its capacity as a distributive quantifier (Babby, 1980; Neidle, 1982; Pesetsky, 1982; Borik, 1995; Schoorlemmer, 1995; Harves, 2003). The preposition *po* has a number of different meanings, including ‘up to, on, after, around’ and ‘along’, and can assign accusative, prepositional, or dative case to its complement, depending on the usage. When *po* has a distributive meaning, it assigns dative case to its complement. It can select as its complement the direct object of a transitive verb, as in (136).

- (136) *Ja dal mal'čikam po jabloku.*
 I gave.MSG boys.MPL.DAT PO apple.NSG.DAT
 ‘I gave the boys an apple each.’ (Pesetsky, 1982, 69)

By contrast, subjects of transitive verbs generally may not appear in phrases headed by distributive *po*, as in (138).¹⁶

- (138) ?? *Po studentu ubilo košku v každoj gruppe.*
 PO student.MSG.DAT killed.NSG cat.FSG.ACC in each group
 intended: ‘A (different) student killed a cat in each group.’ (Pesetsky, 1982, 71)

The sole arguments of unaccusative verbs and the surface subjects of passive verbs pattern with direct objects of transitive verbs in being able to occur under distributive *po*, as in (139) and (140). By contrast, the sole arguments of unergative verbs may not appear under distributive *po*, as in (141).

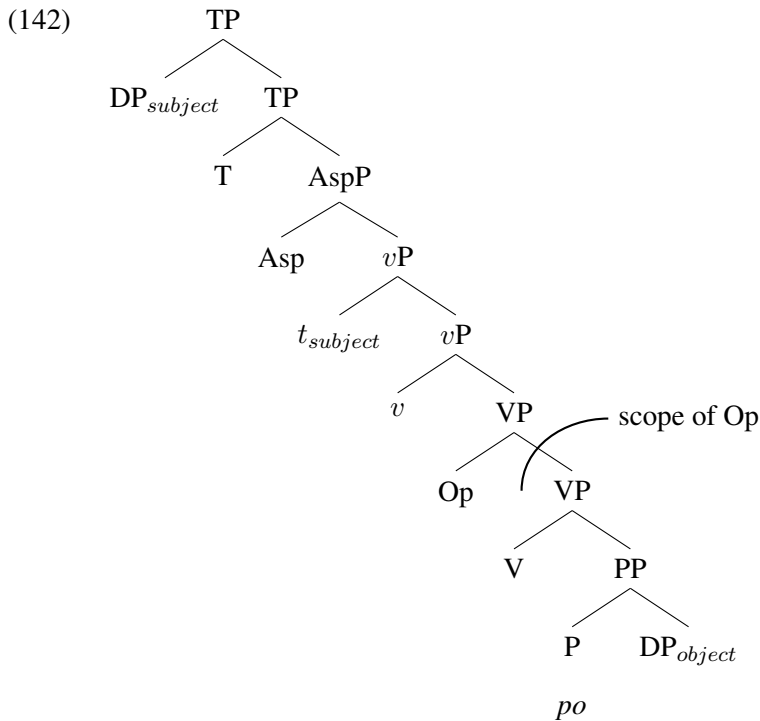
¹⁶ Borik (1995) shows an exception to this generalization. When *po* selects a quantifier phrase, and the quantifier quantifies a noun phrase which serves as the subject of a transitive or unergative predicate, the resulting sentence is grammatical, as in (137).

- (137) *Po pjat' turistov každyj den' smotrel' fil'my.*
 PO five.NOM tourists.MPL.GEN every.MSG.ACC day.MSG.ACC watched.PL films.MPL.ACC
 ‘Five (different) tourists watched films every day.’ (Borik, 1995, 29)

This diagnostic therefore appears to distinguish between internal and external arguments only when no quantifier is present.

- (139) *Po jabloku upalo s každygo dereva.*
 PO apple.NSG.DAT fell.NSG from each.NSG.GEN tree.NSG.GEN
 ‘A (different) apple fell from each tree.’ (Babby, 1980, 45)
- (140) *Každyj den', po gorodu bylo vzjato vragom.*
 each day PO city.MSG.DAT was.NSG taken.PSV.NSG enemy.MSG.INST
 ‘Each day, a (different) city was taken by the enemy.’ (Babby, 1980, 45)
- (141) * *V každoj kvartire smejalos' po mal'čiku.*
 in each apartment laughed.NSG PO boy.MSG.DAT
 ‘A (different) boy laughed in each apartment.’ (Schoorlemmer, 1995, 33)

For Pesetsky (1982) and Borik (1995), distributive *po* must occur within the scope of an operator (Op) at LF, which occupies a fixed position within the clause structure. If we assume that the operator occupies a position between the subject and the object, and that quantified expressions may reconstruct back to their base-generated position at LF, we can explain the distribution of prepositional phrases headed by distributive *po*. Subjects of transitive verbs and the sole arguments of unergative verbs are introduced in a high syntactic position, outside of the scope of Op, but direct objects and the sole arguments of unaccusative verbs are introduced as complements to the verb, within the scope of Op. This analysis is schematized in (142).



Harves (2003) presents a different explanation for the distribution of prepositional phrases headed by distributive *po*. She argues that external arguments are licensed only in the context of a T that bears full ϕ -features. This T must agree with a nominative argument in the clause. If the external argument appears in a prepositional phrase headed by *po*, it bears dative case, so T's features will not be valued.¹⁷

2.3.3 Quantificational verbal prefixes

Further syntactic differences between the arguments of unergative verbs and unaccusative verbs are seen in their interaction with verbs prefixed with *na-*, *pere-*, and *po-* (Borik, 1995; Schoorlemmer, 1995). These prefixes can have quantificational meanings, affecting the interpretation of one of the verb's arguments. When quantificational *na-* is prefixed to the verb, the relevant argument must appear under a quantifier like *mnogo* 'many' or bear genitive case. Similarly, when quantificational

¹⁷ Harves' analysis is consistent with sentences like (137): when the numeral inside a *po* phrase bears nominative case, the verb displays agreement, and external arguments are allowed in the construction.

pere- or *po-* is prefixed to the verb, the relevant argument must appear under a quantifier like *vse* ‘all, every’ or *mnogo* ‘many’.

When the prefixes occur on a canonical transitive verb, they affect the interpretation of the direct object, as in (143); the object must be quantified by *mnogo* ‘many’ or appear in genitive case. If instead the subject of the transitive verb is modified with *mnogo*, while the object is neither quantified nor in genitive case, as in (144), the result is ungrammatical.

- (143) *Deti na-kupili mnogo knig.*
 children.MPL.NOM NA-bought.PL many books.FPL.GEN
 ‘The children bought a lot of books.’ (Schoorlemmer, 1995, 33)

- (144) * *Mnogo detej na-kupilo knigi.*
 many children.MPL.GEN NA-bought.NSG books.FPL.ACC
 intended: ‘Many children bought books.’ (Schoorlemmer, 1995, 34)

The sole arguments of unaccusative verbs, as in (145), and the subjects of passive verbs, as in (146), can both be quantified by *mnogo* or appear in the genitive case when the verb bears a quantificational prefix. The sole arguments of unergative verbs cannot, as in (147).¹⁸

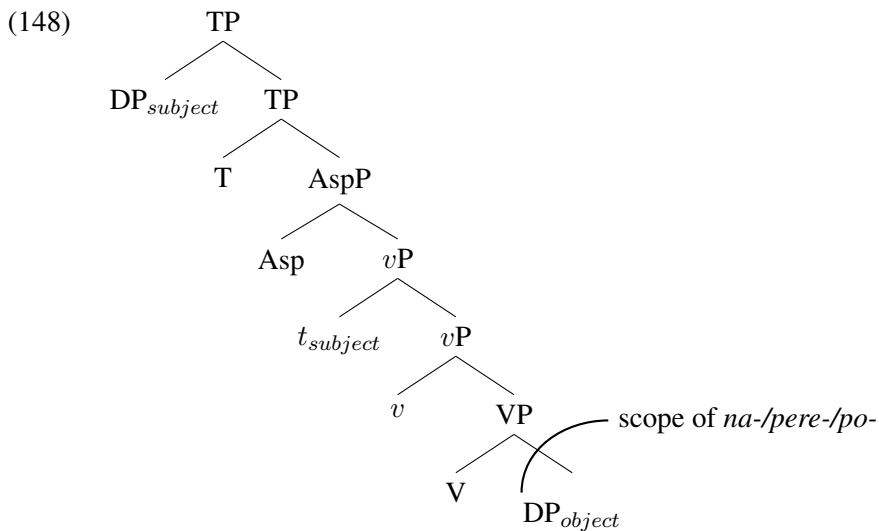
- (145) *Mnogo travy na-roslo v parke.*
 much grass.FSG.GEN NA-grew.NSG in park
 ‘A lot of grass grew in the park.’ (Schoorlemmer, 1995, 33)

- (146) *Vse pis'ma byli na-pisany.*
 all.PL.NOM letters.NPL.NOM were.PL NA-written.PSV.PL
 ‘All the letters were written.’ (Schoorlemmer, 1995, 33)

- (147) * *Pod batareej na-spalo mnogo kotjat.*
 under radiator NA-slept.NSG many kittens.MPL.GEN
 intended: ‘Many kittens slept under the radiator.’ (Romanova, 2006, 85)

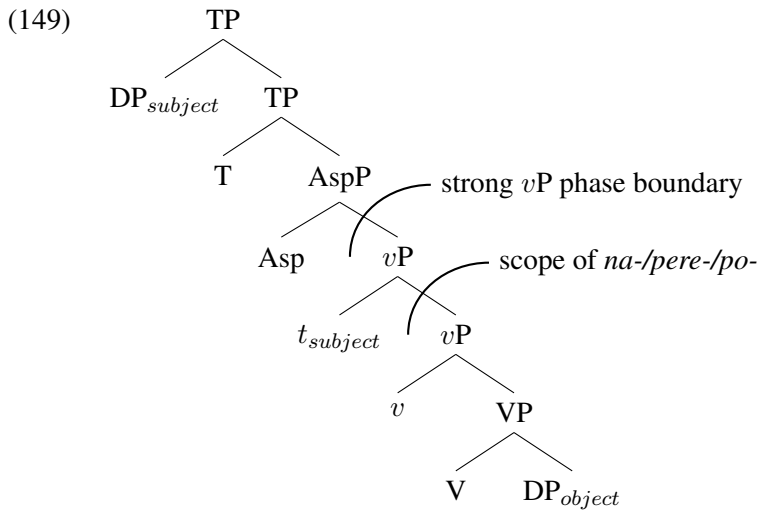
¹⁸ Prefixes like *na-* can also change the argument realization options of the verb; sentences like (147) may therefore be unacceptable for more than one reason.

According to Pesetsky (1982) and Borik (1995), the quantificational noun phrase, such as *mnogo travy* ‘a lot of grass’, must occur within the scope of the verbal prefix at LF. Because the verbal prefix surfaces on V, we can assume that the verbal prefix scopes over the complement of V, but not over higher syntactic positions. This predicts that internal arguments, but not external arguments, can appear with quantificational verbal prefixes. This analysis is schematized in (148).



If we accept this analysis, then we must say that subjects of transitive verbs and the sole arguments of unergative verbs occupy a higher structural position than do direct objects of transitive verbs and the sole arguments of unaccusative verbs.

An alternative analysis of quantificational prefixes leads to the same conclusion. Harves (2003) argues that the quantificational verbal prefixes, which are perfectivizing, are hosted by the Asp head. They therefore c-command both the complement of V—the position of the internal argument—as well as the specifier of *vP*—the position of the external argument. For Harves, the difference in acceptability between internal and external arguments with quantificational prefixes is that only external arguments, and not internal arguments, escape the strong *vP* phase level. Because external arguments are in the specifier of *vP*, they are not subject to Spell-Out with the rest of *vP*. If the scopal domain of the prefix is the *vP* phase, it will never be able to scope over external arguments. Harves’ analysis is illustrated in (149).



Therefore, on both types of account, a difference in syntactic height between the base position of the arguments of unaccusative verbs and the base position of the arguments of unergative verbs explains their behavior with respect to the quantificational prefixes *na-*, *pere-*, and *po-*.

2.3.4 Locative inversion

The fourth way that the arguments of unergative and unaccusative verbs differ is in their ability to appear in the locative inversion construction (Babyonyshev, 1996; Harves, 2003; Glushan, 2013).¹⁹ In this construction, a locative prepositional phrase appears in sentence-initial position, followed by an intransitive verb, followed by the verb's sole argument. This word order is discourse-neutral when verb is unaccusative, as in (150), but it is non-discourse-neutral when the verb is unergative, as in (151). Examples are from Harves (2003), adapted from Babyonyshev (1996).

(150) *V uglu valjalas' kurtka.*

in corner lay.FSG jacket.FSG.NOM

'In the corner lay a jacket.'

(Harves, 2003, 37)

¹⁹ See Levin & Rappaport Hovav (1995, Chapter 6) for an argument that locative inversion is not a sound diagnostic of unaccusativity in English. They note that certain unergative verbs like *work*, *glitter*, *chatter*, and *hop* are well-attested in the locative inversion construction, and they argue that intransitive verbs of either class may appear in the construction, provided that the verb does not represent new information in the discourse.

- (151) # *V kvartire svistit Vanja.*
 in apartment whistles.3SG Vanya.MSG.NOM
 ‘Vanya is whistling in the apartment.’ (Harves, 2003, 37)

Clauses with unergative verbs, as in (151), prefer PP-S-V word order, as in (152), when they are used discourse-neutrally.

- (152) *V kvartire Vanja svistit.*
 in apartment Vanya.MSG.NOM whistles.3SG
 ‘Vanya is whistling in the apartment.’

In sentences like (150), the prepositional phrase is not topicalized and the subject is not in focus. It would be acceptable to say “out-of-the blue”. By contrast, in (151), the preverbal prepositional phrase is topicalized and the subject is in focus. It would be acceptable as an answer to the question *Kto svistit v kvartire?* ‘Who is whistling in the apartment?’ but not out-of-the-blue or as an answer to *Čto proisxodit?* ‘What’s happening?’.

Babyonyshev (1996) analyzes the contrast in acceptability between unaccusative and unergative VS orders by saying that the sole arguments of unaccusative verbs may stay internal to the verb phrase under discourse neutral interpretation, but the sole arguments of unergative verbs must move out of the verb phrase. The VS word order with unaccusative verbs, as in (150), represents the underlying word order, but the VS order with unergative verbs, as in (151), represents a word order derived in conjunction with topicalization of the prepositional phrase and narrow focus on the subject.

As support for her analysis, Babyonyshev shows that VS sentences with intransitive verbs but no overt prepositional phrase show the same contrast between unaccusative verbs and unergative verbs. Unaccusative verbs, as in (153a), but not unergative verbs, as in (154), can appear in VS order when the sentence is uttered with neutral intonation and discourse neutral interpretation.

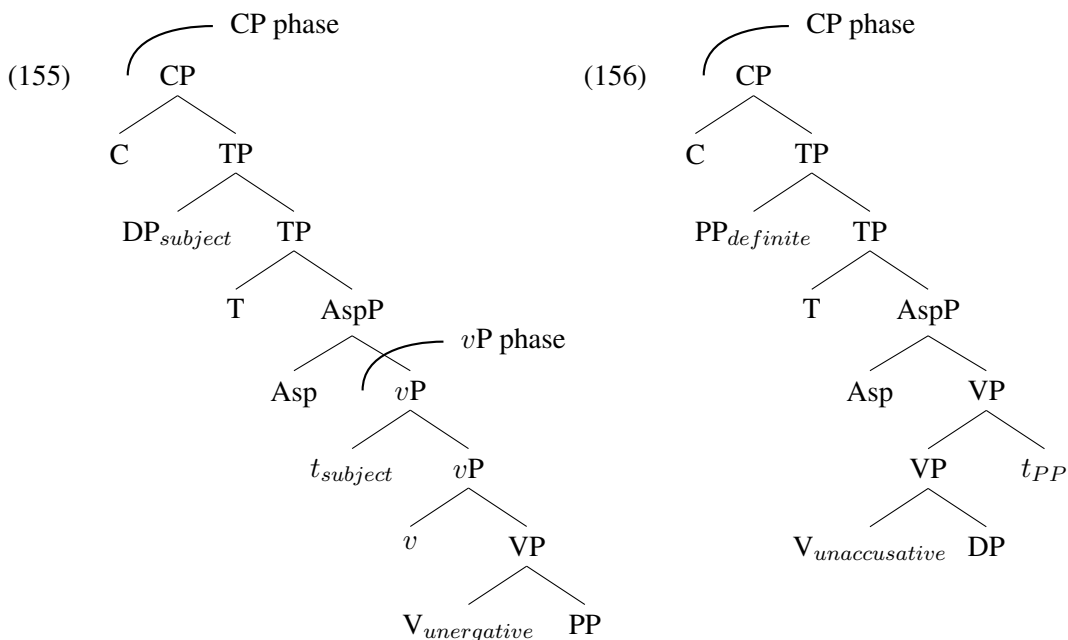
- (153) a. *Zašli gosti.*
 came.in.PL guests.MPL.NOM
 ‘Guests dropped by (my place).’ (Babyonyshev, 1996, 25)
- b. *Gosti zašli.*
 guests.MPL.NOM came.in.PL
 ‘The guests came in.’ (Babyonyshev, 1996, 25)
- (154) # *Svistit Vanja.*
 whistles.3SG Vanya.MSG.NOM
 ‘Vanya is whistling.’ (Babyonyshev, 1996, 25)

Babyonyshev points out an important difference in meaning between (153a) and (153b). In (153a), the guests must have gone to speaker’s house, rather than some unspecified location. By contrast, in SV order, as in (153b), the guests went in to an unspecified location. Due to this meaning difference, Babyonyshev analyzes clauses like (153a) as containing a null locative prepositional phrase argument in addition to the internal nominal argument; the prepositional phrase is merged as the specifier of VP.

For Babyonyshev, some element must move to a high position in the clause to satisfy the EPP. Because both the overt argument of the unaccusative verb and the null locative prepositional phrase are located in the VP, they are both in the same Minimal Domain (in the sense of Chomsky, 1995, 299); this means that either the nominal internal argument or the prepositional phrase can move to satisfy the EPP. In discourse neutral cases, when the verb is unaccusative, the null locative prepositional phrase is interpreted as definite and moves to a position high in the clause satisfy the EPP. When the verb is unergative, however, the nominal argument is outside of the VP, not in the same Minimal Domain as the locative prepositional phrase. The locative prepositional phrase therefore cannot move over the nominal argument in order to satisfy the EPP. Instead, the nominal argument of the unergative verb itself must move to satisfy the EPP, resulting in SV word order.

Harves proposes a different analysis of locative inversion. She follows Chomsky (2000) in

assuming a Derivation by Phase approach; for her, unergative verbs are contained in a strong *vP* phase. In a discourse neutral clause with an unergative verb, the prepositional phrase, which for her is right-adjoined to the VP, will be Spelled Out within *vP*. This analysis is illustrated in (155). If there is some non-neutral discourse feature associated with the prepositional phrase, the prepositional phrase could move to the specifier of *vP*, then to a position higher in the clause, resulting in prepositional-phrase-initial order and non-discourse-neutral interpretation. By contrast, with unaccusative verbs, there is no strong *vP* phase; the prepositional phrase need not carry any special discourse features in order to move to a high clausal position. This derives the PP-V-S word order with a discourse neutral interpretation, as illustrated in (156).



In addition to unaccusative clauses, passive clauses may appear in VS order, with a locative prepositional phrase in first position, while remaining discourse-neutral (157).

- (157) *V ètom kabinete byla napisana znamenitaja dissertacija.*
 in this office was.FSG written.PSV.FSG famous.FSG.NOM dissertation.FSG.NOM
 ‘In this office a famous dissertation was written.’

This fact is consistent with the conclusion that internal arguments can appear in locative inversion constructions while receiving a discourse-neutral interpretation.

2.3.5 Summary

The four constructions described in this section show that external arguments and internal arguments display contrasting syntactic behavior. Subjects of transitive verbs and the sole arguments of unergative verbs pattern together in not appearing in the genitive case in negated sentences, not appearing under the distributive preposition *po*, not requiring an overt quantifier when the verb bears certain prefixes, and receiving non-discourse-neutral interpretation in the locative inversion construction. Direct objects of transitive verbs, surface subjects of passive verbs, and the sole arguments of unaccusative verbs, on the other hand, pattern alike in appearing in each of these constructions. The analyses developed to account for these phenomena maintain that the latter type of arguments are initially merged in a lower syntactic position than are the former type of arguments. For each analysis, the difference in syntactic height derives the distinct syntactic behavior of the two types of arguments. I take this to indicate that the subjects of transitive verbs and the sole arguments of unergative verbs are initially merged in a higher syntactic position than are direct objects, the surface subjects of passive verbs, and the sole arguments of unaccusative verbs; following standard assumptions (Chomsky, 1995; Kratzer, 1996), I understand the higher position to be specifier position of *v*P and the lower position to be complement to the verb.

In Chapter 3, I return to the issue of unaccusativity in Russian, with specific attention to variable unaccusative/unergative behavior. I argue that it is possible for a single verb to be associated with more than one syntactic structure, complicating the analysis just mentioned. However, for the duration of this chapter, I consider an “unaccusative” verb to be one that selects an internal argument and an “unergative” verb to be one that selects an external argument.

2.4 Preverbal nominative arguments

With the base position of these different kinds of nominative arguments established, I now turn to the question of landing site: what syntactic position do preverbal nominative arguments occupy? Given that preverbal nominative arguments in canonical clauses are traditionally recognized as “subjects”, to answer this question, I look to previously proposed diagnostics of “subjecthood”—those phenomena that make a distinction between arguments that are traditionally considered to be subjects and those that are not. The notion of “subject” is not a theoretical primitive in Minimalism; this means that we cannot suppose that these diagnostics pick out “subjects” *per se* (see McCloskey, 1997, for discussion). Instead, each diagnostic may be picking out a property that is held in common by many arguments traditionally referred to as “subjects”, such as occurring in the nominative case, or occupying a particular syntactic position. For my purposes, it is important to determine whether a given subjecthood diagnostic picks out arguments sometimes referred to as “structural subjects”—arguments that occupy the specifier of TP.

In Russian, arguments that are traditionally considered subjects, including preverbal nominative arguments, can act as antecedents of anaphors, control the subject PRO of adverbial participles, serve as subjects of control verbs, undergo raising, occur as dative subjects of infinitives, and induce the *that*-trace effect. In this section, I examine these diagnostics one by one, illustrating what they can and cannot tell us about the syntactic position of preverbal nominative arguments. While I ultimately agree with the consensus in the literature that preverbal nominative arguments in Russian land in the specifier of TP, some diagnostics constitute better evidence for that conclusion than others.

This section sets the groundwork for the next two sections, in which I discuss the properties of nominative arguments that appear postverbally; the extent to which they share the properties discussed here provides clues to their syntactic derivation.

2.4.1 The possessive anaphor *svoj*

One of the most widely-used subjecthood diagnostics for Russian is that, putatively, only subjects can serve as antecedents of the possessive anaphor *svoj* (Klenin, 1974; Rappaport, 1986; Babyonyshev, 1996; Moore & Perlmutter, 2000; Slioussar, 2007; Bailyn, 2012, among others). Sentence (158) shows that *svoj* cannot corefer with the direct object, and sentence (159) shows that it cannot corefer with the agent argument introduced in the *by*-phrase of a passive clause, which bears instrumental case.

- (158) *My_i dovezli rebënka_j do svoego_{i/*j} doma.*
 we.1PL.NOM took.PL child.MSG.A=G to self's.MSG.GEN home.MSG.GEN
 'We took the child to our/*his home.' (Rappaport, 1986)

- (159) *Molodoj bankir byl zastrelen naëmnyj ubijcej v svoëm office.*
 young.MSG.NOM banker.MSG.NOM was.MSG shot.PSV.MSG hired.MSG.INST
 killer.MSG.INST in self's office
 'The young banker_i was shot by a hired killer_k in his_{i/*k} office.' (Khokhlova, 1998)

Sentences (160) and (161) illustrate that a direct object cannot be bound by an indirect object, nor vice versa.

- (160) *Petja_i predstavil Maše_k svoju_{i/*k} tětju.*
 Petya.MSG.NOM introduced.MSG Masha.FSG.DAT self's.FSG.ACC aunt.FSG.ACC
 'Petya_i introduced his_i/*her_k aunt to Masha_k.'

- (161) *Petja_i predstavil Mašu_k svojej_{i/*k} tēte.*
 Petya.MSG.NOM introduced.MSG Masha.FSG.ACC self's.FSG.DAT aunt.FSG.DAT
 'Petya_i introduced Masha_k to his_i/*her_k aunt.'

The direct and indirect objects must instead be bound by the nominative argument.

In addition to being “subject-oriented”, *svoj* is also clause-bound, as shown in (162), and its antecedent is almost always animate (Rappaport, 1986).

- (162) *Vanja_j znaet, čto Volodja_i ljubit svoju_{i/*j} sestru.*
 Vanja.MSG.NOM knows.3SG that Volodja.MSG.NOM loves.3SG self's.FSG.ACC
sestru.
 sister.FSG.ACC
 ‘Vanja knows that Volodja loves his (Volodja’s/*Vanja’s) sister.’

Each of the four kinds of preverbal nominative arguments that I focus on in this chapter—the subject of a transitive verb, the (surface) subject of a passive verb, the sole argument of an unergative verb, and the sole argument of an unaccusative verb—can serve as the antecedent to *svoj*, as in (158), (159), (163), and (164), respectively.

- (163) *Ej-Bogu, lučše v svoej žizni on ne tanceval.*
 by.God better in self's life he.3MSG.NOM NEG danced.MSG
 ‘By God, he had never danced better in his life.’
 (RNC. V. Nekrasov. Malen'kaja nečal'naja novost'. 1986.)

- (164) *Al'ka v svoëm zelënom kolpake stoit tam...*
 Alka.MSG.NOM in self's green hat stands.3SG there
 ‘Alka stands there in his green hat...’
 (RNC. V. Aksenov. Zvezdnyj bilet. Junost'. 1961.)

Accounting for the behavior of “subject-oriented” anaphors like *svoj* is not straightforward; it is unclear exactly why “subjects” should be the only antecedents available for such anaphors. This is especially true since the notion of “subject” is not a primitive concept in the theory—we would expect anaphoric reference to be dependent on a more fundamental property, such as syntactic position or an agreement relationship. I focus here on three potential analyses of “subject-oriented” anaphors, each of which moves us towards a theory of binding that does not make reference to

the notion of a “subject”, but which instead derives binding properties from more fundamental principles.

De Vos (2007) introduces a tool from set-theoretic mathematics that is ultimately able to explain at least some of the behavior of “subject-oriented” anaphors like *svoj*. De Vos borrows the notion of functional dependency from set theory, applying it to syntactic structures. Functional dependencies are defined in syntactic terms in (165).

(165) **Functional dependency:** A set of syntactic features X functionally determines another set of syntactic features Y if the value of the features of X determines the value of the features of Y. (adapted from de Vos, 2007)

For example, a nominal that triggers ϕ -agreement with T functionally determines T; this is because the ϕ -features of T depend on those of the nominal. Similarly, a head functionally determines its complement because the categorial feature of the complement depends on the subcategorization feature of the head. Crucially, functional dependencies are transitive; if X functionally determines Y and Y functionally determines Z, X functionally determines Z.

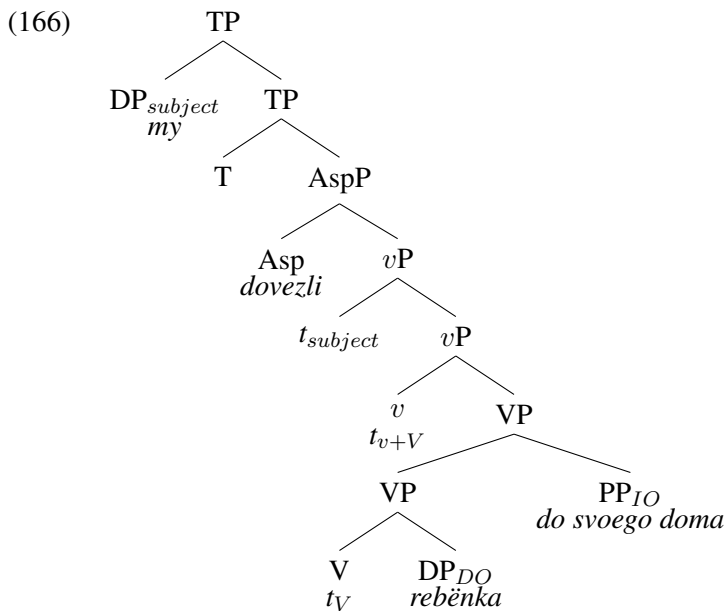
Using this theoretical tool, de Vos can derive the major difference between subject-oriented anaphors and non-subject-oriented anaphors like English *herself*. Subject-oriented anaphors must be functional-dependency bound in their binding domain; that is, *svoj* must be functionally determined by a local antecedent.²⁰ By contrast, anaphors like *herself* need to be c-commanded by their antecedents within their binding domain.²¹

This analysis can partially explain the distribution of *svoj*. Using sentence (158) as an example and the tree in (166) as an illustration, the binding of *svoj* works as follows. The verb functionally determines both of the arguments it introduces, the direct and indirect objects. Little *v* functionally determines the argument it introduces, *my* ‘we’, as well as *v*’s complement, VP. The Asp head functionally determines *v*P, and T in turn functionally determines AspP. The nominative argument

²⁰ The binding domain of a subject-oriented anaphor is defined as the closest DP which functionally determines the anaphor in terms of person features.

²¹ The binding domain of an anaphor like *herself* is, tentatively, the closest DP which functionally determines the anaphor in terms of number features.

my ‘we’ undergoes ϕ -agreement with T, which means that the nominative argument functionally determines T. Because functional dependency is transitive, this means that *my* ‘we’ also functionally determines everything that T functionally determines, including *svoego*. This means that TP is the binding domain of *svoego*, and that *my* ‘we’ is its only possible binder.



Because *svoj* is sensitive to functional dependency, rather than c-command, it would not matter if the direct object were to c-command the indirect object; the only possible binder would be the nominative DP.

This analysis does well at capturing the generalization that *svoj* is bound by a “subject” within its finite clause, as in (167). It is also consistent with the observation that *svoj* does not need to be c-commanded by its antecedent. In (168), *svoj* appears in a prepositional phrase that precedes the preverbal nominative argument.²²

(167) *Maša znala, čto eë/*svoj syn skoro vernëtsja domoj.*

Masha.NOM knew.FSG that her/self’s.NOM son.NOM soon return.FUT.3SG home

‘Masha knew that her son would soon return home.’

(Babby, 1979)

²² This observation could also be explained by saying that the prepositional phrase has moved from a clause-internal position, to which it reconstructs at LF to be interpreted.

- (168) *[Na svoëm_i nadgrobii]PP Stiven Xouking_i zavečšal*
 on self's tombstone Stephen.MSG.NOM Hawking.MSG.NOM bequeathed.MSG
načertat' formulu...
 inscribe.INF equation.FSG.ACC
 'Stephen Hawking_i arranged for an equation ... to be inscribed on his_i tombstone.'

(RNC. A. Volkov. Miry Stivena Xoukinga. 2003.)

If we assume that the prepositional phrase originated clause-internally as an argument of *načertat'* 'inscribe' then the anaphor is functionally determined by T. Then, because the nominative argument determines the ϕ -features on T, it functionally determines T, and, through transitivity, the anaphor.

In other ways, however, the functional dependency analysis of binding is less explanatory. For example, *svoj* can be bound by certain non-nominative noun phrases, such as the dative marked noun phrase in (170).²³

- (170) *... v zapisi ne nraivitsja svoj gos počti vsem...*
 in recording NEG likes.3SG self's.NOM voice.NOM almost everyone.PL.DAT
 '... almost everyone doesn't like to hear their own voice on a recording...' (web)

Under a functional dependency analysis of binding, a noun phrase must functionally determine *svoj* in order to bind it. Unlike nominative marked noun phrases, non-nominative noun phrases do not determine ϕ -features on T, so they do not functionally determine T. This means that non-nominative noun phrases do not functionally determine *svoj*, so the binding relationship in (170) is unpredicted. Even if we said that the non-nominative argument in (170) has moved to the specifier to TP, perhaps to satisfy an EPP feature on T, the analysis could not be saved. In that scenario, T would functionally

²³ But see Slioussar (2007, 2011) for arguments that, when *svoj* is bound by a non-nominative argument, as in (169), it is not behaving anaphorically.

- (169) *U nas_i svoj_i put'.*
 at us.1PL.GEN self's.MSG.NOM way.MSG.NOM
 'We_i have our_i own way.'

determine the non-nominative arguments, rather than vice versa. Again, this means that the anaphor is not functionally determined by the non-nominative noun phrase, and is therefore unable to be bound by it.

Further problems with the functional dependency analysis arise when looking at *svoj*'s binding behavior with respect to control clauses. In (171), *svoj* appears in an infinitival clause whose subject is a PRO that is coreferential with the direct object of the main clause. *Svoj* can be bound by either the nominative-marked argument of the main clause or by the PRO in the infinitival control clause.²⁴

- (171) [Každyj student]_i poprosil Ivana_k [PRO_k pročitat' svoju_{i,k} stat'ju].
 every student.NOM asked.MSG Ivan.A=G PRO read.INF self's.ACC article.ACC
 'Every student_i asked Ivan_k to read his_{i,k} article.' (Avrutin, 1994)

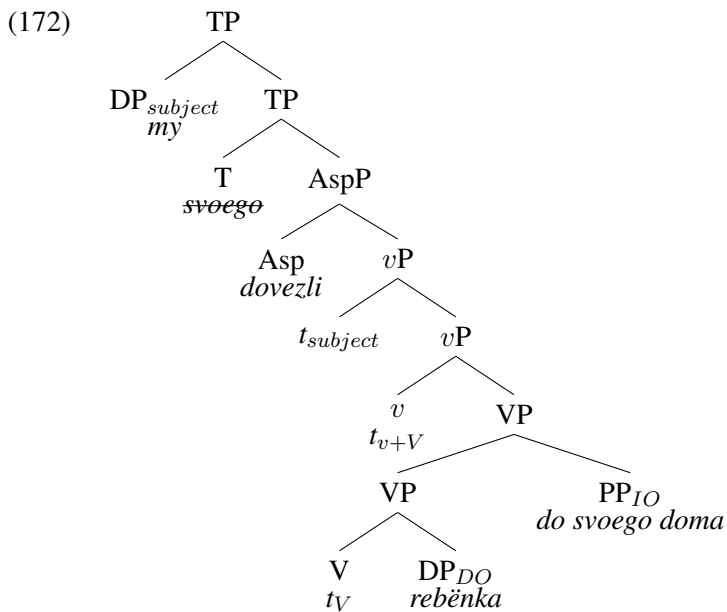
The difficulty arises because PRO, being null, does not bear overt nominative case, and it does not agree with the T inside the embedded clause (because that T is non-finite). PRO's antecedent, *Ivana*, which bears accusative case, does not agree with either the embedded T or the matrix T. This means that neither PRO nor *Ivana* functionally determines *svoju*, so the observed coreference between *Ivana* and *svoju* is unpredicted under a functional dependency analysis.

An alternative to the functional dependency approach achieves better empirical coverage. Under this family of analyses, "subject-oriented" anaphors are derived via covert head movement of the anaphor (Pica, 1986; Battistella, 1989; Cole et al., 1990; Cole & Sung, 1994, among many others). This approach was developed to account for the syntactic behavior of long-distance anaphors, which are always subject-oriented (Koster & Reuland, 1991). In many of these accounts, the antecedent, which is embedded inside a finite clause, adjoins to the C of its local clause, followed by successive-cyclic movement to the T of the higher clauses. The anaphor can then be bound by any c-commanding argument in the embedded clause, or by the subjects of the higher clauses.²⁵

²⁴ Further examples of anaphors bound by PRO in infinitival control clauses can be found in Babby (1979) and Rappaport (1986). Timberlake (1979) shows evidence that *svoj* is more likely to be bound by PRO when PRO is controlled by the matrix subject rather than the matrix object.

²⁵ In some languages, there are restrictions on which of the subjects in the higher clauses can bind the long-distance anaphor. In Chinese and Korean, when an immediately higher subject differs from the lower subject in person

Avrutin (1994) and Asarina (2005) adapt this type of analysis to fit Russian (cf. Progovac, 1993); for them, *svoj* moves covertly from its base position, escaping the noun phrase in which it originates, and adjoining to T. Unlike in languages with long-distance anaphors, in Russian, the anaphor does not go on to escape the embedded clause. In its position in T, *svoj* is bound by a c-commanding noun phrase. The covert head movement analysis is illustrated in (172), again for sentence (158).



In (172), the leftmost instance of *svoego* is unpronounced. For Asarina, this is because the anaphor moves at LF, rather than in the syntax proper.

The covert head movement analysis is consistent with saying that the preverbal nominative arguments in (158)–(164) are in the specifier of TP, from which position they c-command *svoj* in T. The analysis is also able to account for sentences like (168), repeated below as (173), in which the prepositional phrase containing the anaphor precedes the nominative argument.

features, long-distance reflexives are blocked (Cole & Sung, 1994). Other languages, such as Italian and Icelandic, do not exhibit a blocking effect.

- (173) *[Na svoëm_i nadgrobii]PP Stiven Xouking_i zavečšal*
 on self's tombstone Stephen.MSG.NOM Hawking.MSG.NOM bequeathed.MSG
načertat' formulu...
 inscribe.INF equation.FSG.ACC
 'Stephen Hawking_i arranged for an equation ... to be inscribed on his_i tombstone.'

(RNC. A. Volkov. Miry Stivena Xoukinga. 2003.)

In order to account for such sentences, we would need to say that the prepositional phrase containing the anaphor originates clause-internally, as an argument of *načertat'* 'inscribe'. The anaphor moves to T covertly, and the nominative argument *Stiven Xouking* occupies the specifier of TP; this satisfies the binding conditions of the anaphor. Only then does the prepositional phrase containing the anaphor move to the left peripheral position.

Unlike the functional dependency analysis, the covert head movement analysis is able to account for the behavior of the anaphor in control clauses. In (171), repeated below as (174), we could say that the anaphor moves to T of the embedded clause. From this position, it is c-commanded by PRO, allowing PRO to bind it. However, because the embedded T is non-finite, the anaphor must move to the matrix T. From this position, the preverbal nominative argument can bind the anaphor.

- (174) *[Každyj student]_i poprosil Ivana_k [PRO_k pročitat'*
 every.MSG.NOM student.MSG.NOM asked.MSG Ivan.MSG.A=G PRO read.INF
svoju_{i,k} stat'ju].
 self's.FSG.ACC article.FSG.ACC
 'Every student_i asked Ivan_k to read his_{i,k} article.'

(Avrutin, 1994)

This derives the observation that the anaphor may refer to either *každyj student* 'each student' or to *Ivan*.

The analysis can be adapted to account for sentences in which a prepositional phrase containing *svoj* is embedded inside a noun phrase. When such a noun phrase has an overt possessor, the anaphor

can be bound by either the possessor or the putative subject of the clause, as in (175).²⁶

- (175) *Ja_i čital [ego_k stat'ju [o svoej_{i/k} rabote]PP]DP.*
 I read.MSG his article.FSG.ACC about self's work
 'I_i read his_k article about my_i/his_k work.' (Rappaport, 1986, 106)

We might say that the anaphor moves out of the larger DP, stopping in D. From this position, it can be bound by the possessor. The anaphor must continue moving until it reaches the closest finite T, from which position it can be bound by the preverbal nominative argument *ja* 'I'.

Finally, the covert head movement analysis can be adapted to explain the behavior of *svoj* when its binder is non-nominative. For example, in (170), repeated below as (176), we could say that the dative marked noun phrase, *počti vsem* 'almost everyone', is extraposed, having right-adjoined to TP.

- (176) ... *v zapisi ne nraivitsja svoj golos počti vsem...*
 in recording NEG likes.3SG self's.NOM voice.NOM almost everyone.PL.DAT
 '... almost everyone doesn't like to hear their own voice on a recording...' (web)

From its high right-peripheral position, the dative argument c-commands the anaphor in T, and it is within the anaphor's binding domain.²⁷

If this formulation of Asarina's analysis is on the right track, we can come to some conclusions about using the binding of *svoj* as a "subjecthood" diagnostic. The diagnostic can distinguish between noun phrases that c-command T and those that do not. We can then conclude that noun phrases that can bind *svoj* are in the specifier of TP or in some higher peripheral position.²⁸

²⁶ The most straightforward way of applying the functional dependency analysis to this example is to say that *o svoej rabote* is an argument of *stat'ju*, rather than an adjunct, and that the possessor *ego* is a determiner that takes *stat'ju o svoej rabote* as its argument. Making these assumptions would predict that *ego* functionally determines the anaphor and therefore can bind it, but it is unclear whether the assumptions are independently motivated.

²⁷ Under Asarina's account, the binding domain of a Russian anaphor must include a potential binder. If we suppose that specifier of TP is empty, then the domain must expand to include the right-adjoined nominal.

²⁸ Progovac (1993) makes a number of theoretical objections to this analysis, arguing that one must stipulate (a) that *svoj* moves to the closest finite T in Russian but that the equivalent in Chinese can move past finite Ts, (b) that the antecedent must c-command *svoj* itself, rather than c-commanding its trace, and (c) that the anaphor can skip heads like V and C in its movement to T. Relatedly, in sentences like (175), the account must stipulate movement to D.

2.4.2 Controller of PRO of an adverbial participle

Another “subjecthood” diagnostic in Russian is whether a nominal may corefer with an understood argument, or PRO, of an adverbial participle (*deepričastnyj oborot*, also known in the literature as a gerund) (Babby, 1979; Babby & Franks, 1998). The preverbal nominative arguments of canonical transitive verbs can control the PRO of an adverbial participle, as in (177); other arguments, such as the dative marked indirect object in (178), or the direct object in (179), may not.

- (177) *[PRO_i perexodja čerez rel'sy], reběnok_i uslyšal svistok*
 PRO crossing.ADV.PTCP over tracks child.NOM heard.MSG whistle.ACC
parovoza.
 locomotive.GEN
 ‘[Crossing over the tracks]_i, the child_i heard the whistle of a locomotive.’

(Babby & Franks, 1998)

- (178) *Kak ty_i skažeš' žene_k, [PRO_{i/*k} vernuvšis' domoj tak pozdno]?*
 how you say.2SG wife.DAT PRO returning.ADV.PTCP home so late
 ‘What do you say to your wife when you return/*she returns home so late?’

(Babby & Franks, 1998)

- (179) *[PRO_{i/*k} rabotaja v sadu], on_i uvidel Mašu_k.*
 PRO working.ADV.PTCP in garden he.NOM saw.MSG Masha.ACC
 ‘[Working in the garden]_{i/*k}, he_i saw Masha_k.’

(Babby, 1979)

The sole argument of an unergative verb can also control the PRO subject of an adverbial participle, as in (180).

On Progovac’s alternative account, the governing category in which a monomorphemic reflexive like *svoj* must be bound is defined as the smallest maximal projection containing the anaphor, the governor for the anaphor, and, crucially, a *head* that is accessible to the anaphor. In all relevant cases, this head will be T. The anaphor shares the features on T, allowing it to refer to an argument that has some relationship with T. This predicts that any nominative argument that agrees with T, plus (potentially) any argument in the specifier of TP, will be able to bind *svoj*.

- (180) *[PRO_i vernyvšis' v Italiju], on_i mnogo rasskazyval o našej strane...*
 PRO returning.ADV.PTCP to Italy he much talked.MSG about our country
 '[Having returned to Italy]_i, he_i talked a lot about our country...'

(RNC. I. K. Arxipova. Muzyka žizni. 1996.)

Similarly, many speakers allow the subject of a passive verb to control the PRO of an adverbial participle, as illustrated with a *-sja*-passive in (181) and with a periphrastic passive in (182).

- (181) *[PRO_i vyrvavšis' iz tjur'my], Šimanovskaja vnov'*
 PRO breaking.out.ADV.PTCP from prison Šimanovskaya.NOM anew
arestovyvaetsja vo Vladivastoke.
 gets.arrested.PSV.3SG in Vladivostok
 '[Having broken out of prison]_i, Šimanovskaya_i gets arrested in Vladivostok again.'

(Nichols et al., 1980)

- (182) *[PRO_i podnjavšis' na pjatyj ètaž], my_i byli vpuščeny v*
 PRO climbing.ADV.PTCP to fifth floor we were admitted.PSV.PL into
polutemnuju perednjuju.
 dark.FSG.ACC hall.FSG.ACC
 '[Having climbed up to the fifth floor]_i, we_i were admitted to a dark hall.'

(Babby & Franks, 1998)

Finally, the sole argument of an unaccusative verb may also control the PRO of an adverbial participle, as in (183).

- (183) *Mašina_i ležala metrax v desjati vsego, [PRO_i utknuvšis' v derevo] i*
 car.NOM lay.FSG meters at ten all buried.ADV.PTCP in tree and
kverxu kolėsami.
 upwards wheels
 ‘The car_i lay about ten meters away, [buried in a tree with its wheels up]_i.’

(RNC. V. Remizov. Novyj mir. 2013.)

These sentences show that preverbal nominative arguments are able to corefer with the understood subject of an adverbial participle, and that other arguments are not.

What determines whether an argument can bind the PRO of an adverbial participle? Suppose we assume, following Chomsky (1981, Chapter 2), that PRO is an anaphoric pronoun. If its anaphoric reference is subject-oriented, we might expect it to have the same coreference options as *svoj*. We could say that PRO undergoes head movement to finite T, and therefore it is only able to be bound by nominals in the specifier of TP. This analysis is consistent with the coreference pattern exemplified by (177)–(183). It could also potentially explain why many speakers allow the PRO of an adverbial participle to be bound by some non-nominative arguments, as in (184).

- (184) *Mne_i skučno, [PRO_i slušaja lekcii].*
 me.DAT boring PRO listening.ADV.PTCP lectures.FPL.ACC
 ‘I_i am bored [listening to lectures]_i.’ (Babby & Franks, 1998)

Whether the dative nominal in (184) is in the specifier of TP or a higher A' position, coreference between it and PRO is predicted on a covert head movement account.

Just like *svoj*, when an adverbial participle is embedded into a control infinitive clause, the PRO of the adverbial participle is able to corefer with the matrix subject as well as with the understood subject of the infinitive.²⁹ For example, in (185), the PRO of the adverbial participle *vstavaja*

²⁹ Because the lower PRO may corefer with the higher PRO, and the higher PRO corefers with the matrix object, the lower PRO can corefer with the matrix object. That means we would need to change the description of the orientation of the PRO of adverbial participles: its *nearest* antecedent must be a subject.

‘getting up’ can corefer with the matrix subject *vrač* ‘doctor’ or the matrix object *bol’nomu* ‘patient’. (The latter interpretation is more salient in this context, but either interpretation is possible.)

- (185) *Vrač_i predpisal bol’nomu_k PRO_k ležat’, PRO_{i/k} ne
 doctor.MSG.NOM ordered.MSG patient.MSG.DAT PRO lie.INF PRO NEG
 vstavaja s posteli.
 getting.up.ADV.PTCP from bed.FSG.GEN
 ‘The doctor_i ordered the patient_k [to stay in bed]_k [without getting up]_{i/k}.’*

(Babby, 1979)

Compare (185) to (174). We can apply the analysis of *svoj* to the PRO of adverbial participles by saying that both are anaphors that move to the matrix T, stopping at intermediate T heads. This would derive both interpretations of (185).

At this point, one may raise an objection to treating the PRO of adverbial participles as an anaphor analogous to *svoj*: in other contexts (that is, outside of adverbial participle contexts), PRO need not always corefer with a subject. For example, in (186), the understood subject of the infinitive *ujti* ‘leave’ corefers with the direct object of the matrix clause.³⁰

- (186) *On poprosil menja_i [PRO_i ujti].
 he.NOM asked.MSG me.A=G PRO go.INF*

‘He asked me to leave.’

(Babby, 1979)

The fact that the PRO of infinitives can refer to uncontroversial direct objects could cast some doubt on the analysis in which the PRO of adverbial participles behaves like *svoj*: if we want to give all PROs the same analysis, we cannot simply say that PRO is subject-oriented.

While I cannot provide a unifying analysis of Russian PRO, I can point to several differences between phrases headed by adverbial participles and infinitival clauses that may underlie their distinct

³⁰ This property is what allows the lower PRO in (185) to have ambiguous reference: the understood subject of *ležat’* ‘lie’ corefers with the matrix object. Under the covert head movement analysis of the PRO of adverbial participles, the lower PRO moves to the nearest T, allowing it to corefer with the higher PRO (which itself corefers with the matrix object). It then moves to the matrix T, from which point it can corefer with the nominative argument of the matrix clause.

behavior. First, phrases headed by adverbial participles are always adjuncts, while infinitival clauses are arguments. It may be that the adjuncts always adjoin in a position higher than any objects, such that the element in specifier of TP is the only c-commanding noun phrase.³¹

Another major difference between the two types of phrases is that adverbial participles are likely smaller than infinitival clauses; Franks (1995, 159–167) and Babby & Franks (1998) argue that such phrases are not as large as CP because *wh*-movement and extraction out of the phrases are disallowed, and the phrases do not contain either tense or agreement features, suggesting that they are not as large as TP. Babby & Franks (1998) argue that such phrases do not contain a PRO argument at all, but are instead bare, nonfinite VPs whose V bears a special suffix.³²

Finally, the case possibilities of “semi-predicative” elements that can occur inside adverbial participle phrases are different from their case possibilities in infinitival clauses. Semi-predicative elements, such as *sam* ‘oneself’ and *odin* ‘alone’, agree with their antecedents in number, gender, and case, even when their antecedent is phonetically null (Franks & Hornstein, 1992; Landau, 2006, 2008). They appear in nominative or dative case, depending on the case of PRO, as in (187) and (188).

(187) *Kostja obeščal [PRO priiti odin].*
 Kostya.MSG.NOM promised.MSG come.INF alone.MSG.NOM
 ‘Kostya promised to come alone.’ (Landau, 2008)

(188) *Ona poprosila ego [PRO ne ezdit' tuda odnomu].*
 she.NOM asked.FSG him.MSG.A=G NEG go.INF there alone.MSG.DAT
 ‘She asked him not to go there alone.’ (Landau, 2008)

Based on agreement with *sam* ‘oneself’ and *odin* ‘one’, we know that PRO of infinitival clauses is obligatorily nominative in simple subject control clauses, optionally accusative or dative in object control clauses, and obligatorily dative when a verb controls into a *wh*-complement (Landau, 2008).

³¹ But see Babby & Franks (1998) for arguments that adverbial participle phrases can adjoin to VP, or “S”.

³² Under Babby & Franks’s account, phrases headed by adverbial participles do not assign a θ -role to PRO; instead, θ -role assignment takes place via vertical binding (à la Williams, 1987, 1994).

If adverbial participle phrases contain a PRO, then its case pattern is different: it is transparent for case (Babby, 1998; Fleisher, 2006), appearing with either nominative or dative case depending on the case of its closest antecedent, as shown in (189) and (190).

- (189) *Ja vsë videl, sam ostavajas' nezamečennym.*
 I all.PL.ACC saw.MSG self.MSG.NOM remaining.ADV.PTCP unnoticed.MSG.INST
 'I saw everything, (while) remaining unnoticed myself.' (Babby, 1998)
- (190) *Ščel' v doskax dala mne vozmožnost' [PRO vsë
 crack.FSG.NOM in boards gave.FSG me.DAT opportunity.FSG.ACC all.NSG.ACC
 videt', samomu ostavajas' nezamečennym].*
 see.INF self.MSG.DAT remaining.ADV.PTCP unnoticed.MSG.INST
 'The crack in the boards let me see everything without being noticed myself.'
 (Babby, 1998)

The differences between adverbial participle phrases and infinitival clauses may drive the difference in their respective coreference patterns.

It is unclear exactly how to derive the coreference pattern of the PRO of adverbial participle phrases. However, given the coreference pattern that it displays—this PRO can refer to preverbal nominative arguments of many types of clauses, regardless of the arguments' base-generated position, and it can refer to non-nominative arguments traditionally considered to be subjects—it is plausible that coreference with this PRO is dependent on the position of the referent; only elements in specifier of TP can antecede the PRO of an adverbial participle phrase.

2.4.3 Serving as a controllee

The next two subjecthood diagnostics concern the ability of the putative subject to occur as the understood, but unexpressed, argument of a verb embedded under a control verb (that is, to *be* a PRO, or a controllee). In (191), the overt subject of the matrix verb *xotet'* 'want' is interpreted as

the understood subject of the transitive verb *proverit'* 'check'; in (192), the subject of the matrix verb is interpreted as the understood subject of the embedded unergative verb.

(191) *Ja_i xotel [PRO_i proverit' otvety k èkzamenu].*

I.NOM wanted.MSG PRO check.INF answers to exam

'I wanted to check the answers to the exam.'

(192) *On_i sobiralsja [PRO_i rabota^l].*

he planned.MSG PRO work.INF

'He planned to work.'

Similarly, the overt subjects of control verbs bind the PRO that serves as the subject of a passive verb, as in (193) and the sole argument of an unaccusative verb, as in (194).

(193) *On_i xotel [PRO_i byl' uvidennym] potomu što emu nužno bylo*

he wanted.MSG PRO be.INF seen.PSV because him.DAT necessary was.NSG

alibi.

alibi.

'He wanted to be seen because he needed an alibi.'

(web)

(194) *Vanja_i staralsja [PRO_i prijti domoj vo-vremja].*

Vanja.NOM tried.MSG PRO come.INF home on-time

'Vanja tried to come home on time.'

(Babyonyshev, 1996)

Finally, non-nominative arguments that are considered "subjects" by some researchers, such as the dative experiencer in (195) (see Bachman, 1980, for various positions; Greenberg & Franks, 1991; Bailyn, 1995; King, 1995; Franks, 1995; Moore & Perlmutter, 2000), cannot occur as the understood argument in a sentence embedded under a control verb.

- (195) * *Boris_i* *sdelal* *vse* *vozmožnoe*, [*čtoby* *PRO_i ponravil'sja*
 Boris.MSG.NOM did.MSG all.NSG.ACC possible.NSG.ACC in.order.to like.INF
 èti *ljudi*].
 these.PL.NOM people.PL.NOM
 ‘Boris did everything possible to take a liking to these people.’

(Moore & Perlmutter, 2000)

How is this coreference pattern derived? And in what sense must PRO serve as the “subject”? Under traditional analyses of control, PRO is considered to occur in ungoverned positions (Chomsky, 1981) or in caseless positions (Manzini, 1983; Bouchard, 1984; see Chomsky & Lasnik, 1993; Hornstein, 1999; Martin, 2001, for updated analyses in which Case plays a role). Because the infinitive cannot assign Case to the element in specifier of TP, the only possible subject is PRO, which is necessarily Caseless. No other head is affected by the non-finiteness of T; for example, the verb can still assign accusative C/case to its object, so we never expect to see PRO as a direct object.

Under some more recent analyses, PRO can bear case, as discussed above (see also Sigurðsson, 1991, 2008; Babby & Franks, 1998; Landau, 2004, 2006, 2008; McFadden, 2004; San Martin, 2004), and control is conceptualized as an agree relation between a functional head in the matrix clause and PRO in the embedded clause (Landau, 2004, 2006, 2008). For example, according to Landau (2006), any finite, agreeing T comes to bear an uninterpretable feature [+R], which can only be checked by a referential argument, like an overt DP or little *pro*. By contrast, non-finite and non-agreeing Ts bear the feature [-R], which must be checked by a non-referential argument, i.e. a big PRO. In subject control, an agree relation takes place between the matrix T and the argument in its specifier, and between T and PRO, ensuring that PRO has the same ϕ -features as the matrix subject, including case.

Either of these analyses correctly predicts that preverbal nominative arguments should be able to be replaced by a PRO when the verb is non-finite. Whether or not these analyses correctly rule out sentence (195) depends on their implementation and on assumptions about the derivation of

experiencer sentences. Let's assume, following Belletti & Rizzi (1988) that nominative stimulus arguments are initially merged as internal arguments, and that experiencer arguments are merged in a higher syntactic position within the verb phrase. One way to rule out (195) is to say that the stimulus argument needs to raise to the specifier of TP to get nominative case—but then non-finite T is not specified for case. This would correctly predict (195) to be ungrammatical. On the alternative analysis, not only is there no way for the stimulus argument to get nominative case, but the experiencer argument, PRO, is likely assigned dative case from the head that introduces it, in addition to being assigned nominative case from the matrix T.

Because the ability to be replaced by a PRO is limited to arguments that would otherwise be assigned nominative case, therefore not aligning with the previous two diagnostics, and because the standard analyses of control rely heavily on the nominative case marking abilities of T, it is unclear whether this diagnostic identifies arguments in a particular syntactic position or simply nominative arguments.

2.4.4 The dative argument of an infinitive

A similar diagnostic concerns an impersonal construction in which the verb appears in the infinitive and the putative subject appears in the dative case. Both the subject of a transitive verb, as in (196), and the sole argument of an unergative verb, as in (197), can appear in the dative case in such constructions.

- (196) *Mne ne sdat' èkzamen.*
 me.1SG.DAT NEG pass.INF exam.MSG.ACC
 'It's not (in the cards) for me to pass the exam.' (Moore & Perlmutter, 2000)

- (197) *Mne ne rabota' odnomu.*
 me.1SG.DAT NEG work.INF alone.MSG.DAT
 'It's not (in the cards) for me to work alone.' (Moore & Perlmutter, 2000)

Subjects of passive verbs, as in (198), and the sole arguments of unaccusative verbs, as in (199), can

also appear in dative case when the verb is infinitive.

- (198) *Toj rukopisi ne byt' opublikovanoj zarubežnym*
 that.FSG.DAT manuscript.FSG.DAT NEG be.INF published.PSV foreign.NSG.INST
izadatel'stvom.
 publishing.house.NSG.INST
 'It's not (in the cards) for that manuscript to be published by a foreign publishing house.'
 (Moore & Perlmutter, 2000)

- (199) *Segodnja Vane ne pridti domoj vo-vremja.*
 today Vanja.MSG.DAT NEG come.INF home on-time
 'It's not (in the cards) for Vanja to come home on time today.' (Babyonyshev, 1996)

While Moore & Perlmutter (2000) analyze these dative arguments as true surface subjects, Fleisher (2006), following suggestions by Schein (1982) and Sigurðsson (2002), convincingly argues that dative infinitive constructions are biclausal; the dative nominal, an experiencer, merges as an internal argument of the impersonal verb *byt'* 'be'. The dative argument corefers with a PRO that serves as the subject of the embedded clause, as schematized in (200), using example (196).

- (200) $[_{TP} Mne_i [_{T'} \emptyset.BYT'_j [_{VP} expl [_{V'} t_j t_i [_{CP} PRO_i ne\ sdat'\ \grave{e}kzamen]_{CP}]_{V'}]_{VP}]_{T'}]_{TP}$

The dative argument moves from its position as an internal argument of *byt'* 'be' to the specifier of the matrix TP to satisfy the EPP.

In support of his analysis, Fleisher first shows that an overt form of *byt'* 'be' appears in past and future tenses, as in (201).

- (201) *Mne bylo/budet ne sdat' \grave{e}kzamen.*
 me.1SG.DAT was.NSG/will.be.3SG NEG pass.INF exam.MSG.ACC
 'It was not/will not be (in the cards) for me to pass the exam.' (Fleisher, 2006)

The presence of an overt *byt'* 'be' in the past and future tenses suggests that there is a null present tense form of *byt'* in (200). With this established, Fleisher points out that the negation marker

ne in sentences like (201) obligatorily follows *byt'*; by contrast, in other contexts, *ne* obligatorily precedes the finite verb or auxiliary. Given the biclausal analysis represented in (200), this fact is straightforwardly explained: *ne* must follow *byt'* because it is not in the matrix clause, but rather in the embedded clause.

Additionally, the biclausal analysis explains a curious fact about dative infinitive constructions when they appear in the future tense. As background, each Russian verb is lexically specified as perfective or imperfective; the future tense of imperfective verbs is always formed by adding a future form of *byt'* to the imperfective infinitive, and the future tense of perfective verbs is always formed synthetically. In (201), however, the future form of *byt'*, *budet* ‘will be’, co-occurs with *sdat'* ‘pass’, a perfective infinitive. Under the biclausal analysis of dative infinitive constructions, the reason that *byt'* and the perfective infinitive may co-occur is that they are not clausemates; *byt'* is the matrix verb and the perfective infinitive is inside the embedded clause.

Under this analysis, then, the preverbal arguments in (196)–(199) are dative arguments of the matrix clause, and they are co-indexed with the PRO in the embedded clause. As argued in Section 2.4.3, it seems that the only arguments that can be replaced by a PRO are arguments that would otherwise be assigned nominative case, rather than arguments in some particular structural position. If this is the case, we do not expect dative experiencer arguments, those sometimes considered to be “subjects”, to be able appear in the dative infinitival construction. In fact, they cannot do so, as shown in (202).³³

- (202) * *Takim ljudjam ne ponravit'sja ègoističnye aktëry.*
 such.PL.DAT people.PL.DAT NEG like.INF egotistical.MPL.NOM actors.MPL.NOM
 ‘It is not (in the cards) for such people to come to like egotistical actors.’

(Moore & Perlmutter, 2000)

Adopting a biclausal analysis of dative infinitive constructions suggests that the ability to appear

³³ Under Moore & Perlmutter’s (2000) analysis of dative experiencer arguments and dative arguments of infinitives, only surface subjects can appear as dative arguments of infinitival clauses, and the inability of dative experiencers to do so, as in (202), indicates their non-surface-subjecthood. If, however, we accept Fleisher’s (2006) analysis of dative infinitive constructions, example (202) does not necessarily constitute evidence for this claim.

as the dative argument in such a construction is dependent on the ability to be replaced by a PRO (that is, to be controlled). If we further adopt the reasoning in Section 2.4.3, then this diagnostic does not pick out arguments that are in some particular syntactic position, but instead picks out only nominative arguments.

2.4.5 Raising

The next subjecthood diagnostic concerns the putative raising predicates *dolžen* ‘should’, *možet* ‘can’, *načinat’* ‘start’, *perestat’* ‘stop’, *prekratit’* ‘stop’, *prodolžat’* ‘continue’, and *stat’* ‘begin’. Under traditional analyses of raising, arguments can raise from the subject position of the embedded clause to the matrix clause (Chomsky, 1981). In (203), the argument preceding *dolžen* ‘should’ is understood as the agent of the transitive verb *čitat’* ‘read’, and it triggers agreement on the raising predicate. The sole arguments of unergative verbs can also raise, as in (204).

(203) *Ivan dolžen čitat’ knigu.*

Ivan.NOM should.MSG read.INF book.ACC

‘Ivan should read the book.’

(204) *Boris načal rabotat’ na ètom zavode.*

Boris.NOM began.MSG work.INF at this factory

‘Boris began to work at this factory.’

(Perlmutter & Moore, 2002)

The surface subjects of passive verbs, as in (205), and the sole arguments of unaccusative verbs, as in (206), pattern with the subjects of transitive and unergative verbs in being able to undergo raising.

(205) *On možet byt’ neskol’ko ispravlen učeniem i opytom...*

it can.3MSG be.INF a.bit corrected.PSV.MSG teaching.INST and experience.INST

‘It can be corrected a bit by teaching and experience...’

(RNC. Recepty nacional’nyx kuxon’: Francija. 2000-2005.)

(206) *Vanja prodolžal prixodit' domoj ne vo-vremja.*

Vanja.NOM continued come.INF home NEG on-time

'Vanja continued to come home not on time.'

(Babyonyshev, 1996)

Subject-to-subject raising is often straightforwardly analyzed as movement of the embedded noun phrase from the infinitival clause, where it cannot be assigned case, to the matrix clause, where it is assigned nominative case (Chomsky, 1981). This analysis is consistent with the examples shown so far. However, there are three alternative analytical possibilities: the putative raising predicates could be control predicates, the putative raising constructions could involve restructuring, or the putative raising constructions could be instances of scrambling. I argue that the first two possibilities are unlikely, but that the third possibility cannot be ruled out. This in turn indicates these putative raising constructions are not useful in diagnosing structural "subjects".

First, the putative raising predicates do not show the same syntactic behavior as control predicates. Raising predicates and control predicates differ in that the former select a single, propositional argument, while the latter select an agentive argument and a proposition. This means that only control predicates will be able to select an agent argument that is non-coreferential with the subject of the embedded clause, as in (207), while the putative raising predicates cannot, as in (208).

(207) *Ona xočet, čtoby Maks stavil otmetki.*

she.3FSG wants.3SG that.SBJV Max.MSG.NOM put.SBJV.MSG grades.FPL.ACC

'She wants for Max to assign the grades.'

(208) * *Ona dolžna (čtoby) Maks stavil otmetki.*

she must.FSG that.SBJV Max.MSG.NOM put.SBJV.MSG grades.FPL.ACC

For the same reason, active and passive variants of control clauses give rise to different interpretations, as in (209), while active and passive variants of putative raising constructions are synonymous, as in (210).

- (209) a. *Ja xotel proverit' otvety k èkzamenu.*
 I.NOM wanted.MSG check.INF answers.MPL.ACC to exam.MSG.DAT
 'I wanted to check the answers to the exam.'
- b. # *Otvety k èkzamenu xoteli proverjat'sja mnoju.*
 answers.MPL.NOM to exam.MSG.DAT wanted.PL checked.PSV.INF me.INST
 'The answers to the exam wanted to be checked by me.'
- (210) a. *Ja dolžen proverjat' otvety k èkzamenu.*
 I.NOM must.MSG check.INF answers.MPL.ACC to exam.MSG.DAT
 'I must check the answers to the exam.'
- b. *Otvety k èkzamenu dolžny proverjat'sja mnoju.*
 answers.MPL.NOM to exam.MSG.DAT must.PL checked.PSV.INF me.INST
 'Answers to the exam must be checked by me.'

These examples provide evidence that the putative raising predicates are not control predicates.

Another alternative to the raising analysis of these constructions is that they involve restructuring. Restructuring predicates take complements the size of the verb phrase, so if these constructions involve restructuring, then they are monoclausal. This would then predict that the infinitive could not be modified by a TP-level adverbial or negated using an immediately preceding *ne*, contrary to observation, as shown in (211) and (212), respectively.

- (211) *Ivan možet neoxotno ubirat' kvartiru.*
 Ivan.MSG.NOM can.3SG reluctantly clean.INF apartment.FSG.ACC
 'Ivan can reluctantly clean the apartment.'
- (212) *Ivan možet ničego ne delat'.*
 Ivan.MSG.NOM can.3SG nothing.NSG.GEN NEG do.INF
 'Ivan can not do anything.'

These examples suggest that the constructions under consideration are biclausal; if this is the case, then they are not the result of restructuring.

There is, however, another analytical possibility: because Russian word order is variable, it is possible that the nominative argument in putative raising constructions is actually scrambled to the position preceding the putative raising predicate—that is, instead of moving from a subject position to a subject position, the nominative argument may be moving from a subject position to some other position (perhaps an *A'* position) that precedes the predicate. In fact, it does seem like such a scrambling operation is possible in Russian. For example, non-controversial direct objects marked with accusative case can precede putative raising predicates, as in (213).

(213) *Dom perestala Daša stroit'.*
 house.MSG.ACC stopped.FSG Dasha.FSG.NOM build.INF
 ‘Dasha stopped building the house.’

(214) *Daša perestala stroit' dom.*
 Dasha.FSG.NOM stopped.FSG build.INF house.MSG.ACC
 ‘Dasha stopped building the house.’

One might be tempted to say that sentences like (213) are the result of scrambling, while sentences like (214) are the result of genuine raising. However, while accusative arguments that precede the putative raising predicate show different syntactic behavior from nominative arguments that do so, those differences do not necessarily indicate a difference in the type of movement.

The first difference between nominative *versus* accusative arguments that precede a putative raising predicate is that the nominative argument always triggers agreement on the predicate, and the accusative argument never does, regardless of their relative order. This, however, is to be expected, as Russian verbs only show agreement with nominative arguments. A second difference is that the nominative argument, even when it is pronounced within the embedded clause, acts as though it were in the higher syntactic position, retaining the ability to, e.g., bind *svoj*, as in (215); the accusative argument may not do so (see also Potsdam & Polinsky, 2008).

- (215) *So svoego_i podnosa ne perestaval on_i ugasčat' gostej.*
 from self's tray NEG stopped.MSG he.NOM treat.INF guests.MPL.GEN
 'From his tray he didn't stop treating guests.'

The analysis to be presented in Section 2.5 accounts for this fact: I argue that the nominative argument, even though it is pronounced in a low position, moves covertly to the specifier of the matrix clause. From this high position, it can bind the anaphor. If this analysis is on the right track, then the difference in binding possibilities for a nominative *versus* an accusative argument, when either overtly precedes a putative raising verb, does not necessarily indicate a difference in the syntactic position of that overtly pronounced argument. That is, just as it is possible that the accusative argument in (213) reaches its preverbal position by scrambling, it is also possible that the nominative argument in (214) reaches its preverbal position by scrambling.

Together, this means that the sentences that putatively involve raising a nominative argument to subject position, as in (203)–(206), could instead all involve scrambling. As a result, even if subject-to-subject raising exists in Russian, it cannot be reliably distinguished from scrambling, and so it cannot be reliably used as a diagnostic of subjecthood or subject position.

2.4.6 The complementizer-trace effect

The final diagnostic I consider here is the complementizer-trace effect or the *that*-trace effect: Perlmutter (1971), looking at French and English, observed that the *wh*-extraction of a subject out of a finite clause headed by the overt complementizer *that* is ungrammatical, while the extraction of an object in the same environment is grammatical. In Russian, the complementizer-trace effect arises when the subject of an embedded subjunctive clause, headed by the complementizer *čtoby*, moves out of the embedded clause. Unlike English *that*, the complementizer *čtoby* is obligatory in subjunctive clauses. And unlike subjunctive clauses headed by *čtoby*, indicative clauses headed by *čto* do not allow *wh*-extraction.

The complementizer-trace effect is induced by subjects of transitive verbs, as in (216), surface

subjects of passive verbs, as in (217), and the sole arguments of unaccusative verbs, as in (218).

- (216) * *paren'*_i, *kotoryj ja xotel čtoby t_i uvidel Mašu*
 guy.NOM who.NOM I wanted that saw Masha.ACC
 intended: 'the guy who I wanted to see Masha' (Bailyn, 1995)
- (217) * *kakaja kniga_i Ivan xotel, čtoby t_i byla pročítana*
 what.FSG.NOM book.FSG.NOM Ivan want that was.FSG read.PSV.FSG
 intended: 'What book did Ivan want to be read?' (Pesetsky, 1982)
- (218) * *čelovek, kotoryj_i ty xočeš' čtoby t_i prixodil domoj vo-vremja*
 man.NOM who.NOM you want that came home on-time
 intended: 'the man who you want to come home on time' (Babyonyshev, 1996)

By contrast, some speakers accept sentences in which non-subjects have moved out of their embedded subjunctive clauses, as in (219) and (220).³⁴

- (219) % *Kogo ty xočeš' čtoby ja priglasila?*
 who.A=G you.SG want.2SG that I invite.FSG
 'Who do you want me to invite?' (Dyakonova, 2009, 220)
- (220) % *Komu_i Ira xočet čtoby my otdali t_i kotjat?*
 who.DAT Ira wants.3SG that we gave.away.PL kittens.ACC
 'Who does Ira want us to give the kittens to?' (Dyakonova, 2009, 216)

Several analyses have been proposed to account for complementizer-trace effects, with early analyses making reference to the linear order of the complementizer and the extraction site, and more recent analyses proposing that A'-movement from immediately below the complementizer is disallowed (see Pesetsky, 2017, for an overview). In one recent proposal, Erlewine (2016, 2017) analyzes the complementizer-trace effect in terms of anti-locality (Grohmann, 2003); movement from the specifier of one phrase to the specifier of the next highest phrase is too short to be licit.

³⁴ The sentences (219) and (220) are not perfect counterparts of (216)–(218); the former involve extraction out of embedded clauses while the latter involve extraction out of relative clauses.

Erlewine’s Spec-to-Spec Anti-Locality Constraint states that A’-movement of a phrase from the specifier of XP must cross a maximal projection other than XP. Subjects, by virtue of occupying specifier of TP, are too close to the specifier of CP to move there. Internal arguments, on the other hand, are far enough away that their movement conforms to the Spec-to-Spec Anti-Locality Constraint.

If this analysis is on the right track, then we expect that any constituent whose movement induces a complementizer-trace effect passes through the specifier of TP—this constituent does not necessarily have to be nominative. For example, Babyonyshev (1996) claims that locative prepositional phrases in Russian qualify as such constituents, as shown in (221), which she says is “imperfect”. An English analogue is presented in (222), which is also said to be ungrammatical when the complementizer is overt.

- (221) ?? *komnata_i, v kotoroj ty xočeš’ čtoby t_i stojal*
 room.FSG.NOM in which you.NOM want.2SG that.SBJV stood.SBJV.MSG
stol
 table.MSG.NOM
 intended: ‘the room in which you want the table to stand’ (Babyonyshev, 1996, 36)

- (222) In which villages_i do you believe (*that) t_i are found the best examples of this cuisine?
 (adapted from Bresnan, 1977, 186)

Because Babyonyshev (1996) finds examples like (221) imperfect, she concludes that the locative phrase is in the specifier of TP.

This conclusion, however, is at odds with evidence from binding that suggests that preverbal prepositional phrases do not occupy the specifier of TP. Slioussar (2007) shows that such prepositional phrases cannot bind *svoj*, as in (223)–(224).

- (223) * *Svoj_i xozjain vošël v kvartiru_i.*
 self’s owner.MSG.NOM entered.MSG in apartment
 intended: ‘The owner of the apartment entered the apartment.’ (Slioussar, 2011)

- (224) * *V kvartiru_i vošël svoj_i xozjain.*
 in apartment entered.MSG self's owner.MSG.NOM (Slioussar, 2011)
- (225) * *V kvartiru_i svoj_i xozjain vošël.*
 in apartment self's owner.MSG.NOM entered.MSG (Slioussar, 2011)

As a result, I do not consider the complementizer-trace effect to be a perfectly reliable diagnostic of structural position in Russian.

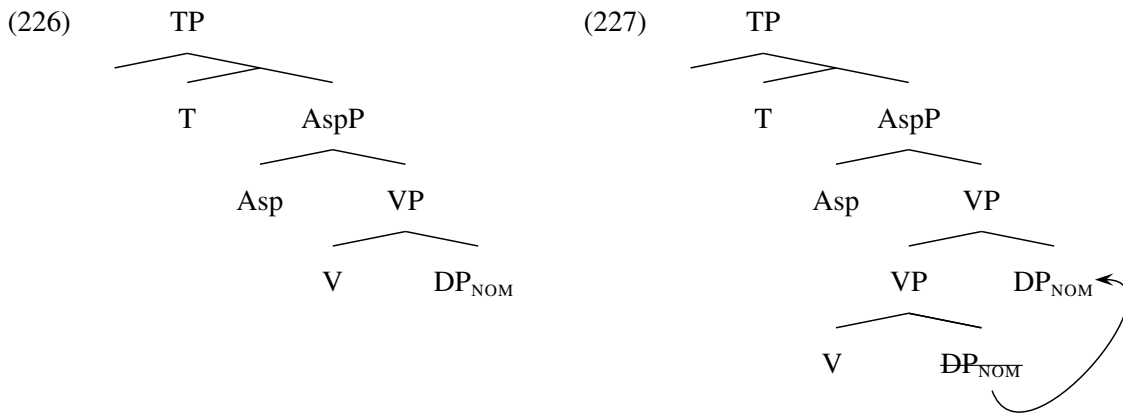
2.4.7 Summary

Each of the diagnostics presented in this section makes a division between arguments that are generally thought to be “subjects” and other arguments; the diagnostics do not always align with one another with respect to the status of, for example, dative experiencer arguments or locative prepositional phrases. If we adopt the analyses of the phenomena presented here, we must say that some “subjecthood” diagnostics pick out only nominative arguments—namely, serving as a controllee and serving as the dative argument of an infinitive—and others pick out those arguments in the specifier of TP—namely, binding of an anaphor and serving as a controller. According to these latter diagnostics, preverbal nominative arguments occupy the specifier of TP; in the rest of the chapter, I show that, perhaps counterintuitively, postverbal nominative arguments do so as well, according to the same diagnostics.

2.5 Postverbal nominative arguments

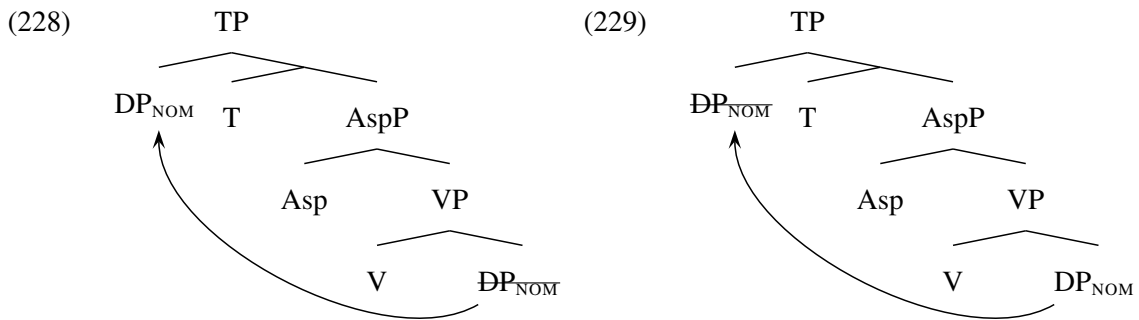
In this section, I consider the landing site of nominative arguments, both internal and external, that follow the verb. There are two straightforward possible derivations of VS order. In the first, the nominative argument remains *in situ* inside the *vP/VP*—an internal nominative argument would remain as the complement of V, and an external nominative argument would remain in the specifier of *vP*. The verb, having moved to Asp, would then precede any nominative argument in the *vP/VP*,

deriving VS order. A second possibility is that, in VS orders, the nominative argument is extraposed, having adjoined to the right of the VP or TP. These potential analyses are illustrated in (226) and (227), respectively.



Here, I argue against both of these analyses. Instead, I present arguments from Krejci et al. (2018) for a third, perhaps less intuitive possibility—nominative arguments in Russian undergo syntactic movement to the specifier of TP; they leave behind a copy in their base position, and the lower copy is the one that is pronounced. This kind of “covert movement” has been argued to be relevant to the derivation of VS sentences in which the verb’s argument receives genitive case under negation (Babyonyshev et al., 2001, cf. Potsdam & Polinsky, 2011; Polinsky & Potsdam, 2013); here, it is applied instead only to nominative postverbal arguments.

The analysis can be illustrated as follows. Both trees in (228) and (229) show movement of a nominative internal argument to the specifier of TP. In (228), the higher copy is pronounced, and in (229), the lower copy is pronounced; evidence presented in this section suggests that both options are available to nominative arguments in Russian.



As shown in Section 2.4, diagnostics involving the binding of *svoj* and the control of PRO can pick out elements that have moved to the specifier of TP. Here, I use those two diagnostics, as well as evidence from quantifier scope, to argue that, even when a nominative argument is pronounced postverbally, a copy of that argument occupies a higher syntactic position.

The possibility of covert A-movement in Russian was first suggested by Babyonyshev et al. (2001) for a different type of argument; specifically, they argue that the internal argument of an unaccusative verb that is marked with genitive of negation moves covertly to subject position. As shown in Section 2.3.1, internal arguments of unaccusative and passive verbs may appear in the nominative case, or they may be case-marked genitive under negation. This is shown in (230) for unaccusatives and in (231) for passives.

- (230) a. *Otvet* *ne prišël.*
 answer.MSG.NOM NEG came.MSG
 ‘The answer didn’t come.’

- b. *Otveta* *ne prišlo.*
 answer.MSG.GEN NEG came.NSG
 ‘An answer didn’t come.’

- (231) a. *Gazety* *ne byli polučeny.*
 newspapers.FPL.NOM NEG were.PL received.PSV.PL
 ‘The newspapers were not received.’

- b. *Gazet* *ne bylo polučeno.*
 newspapers.FPL.GEN NEG was.NSG received.PSV.NSG
 ‘The newspapers were not received.’

The case that appears on the argument is not dependent on the surface word order; regardless of whether the argument appears in the nominative or the genitive case, it may appear either preverbally, as in (230) and (231), or postverbally, as in (232) for unaccusatives and (233) for passives.

- (232) a. *Zdes' ne rastut griby.*
 here NEG grow.3PL mushrooms.MPL.NOM
 ‘Mushrooms don’t grow here.’
- b. *Zdes' ne rastët gribov.*
 here NEG grows.3SG mushrooms.MPL.GEN
 ‘No mushrooms grow here.’
- (233) a. *Segodnja ne byli polučeny gazety.*
 today NEG were.PL received.PSV.PL newspapers.FPL.NOM
 ‘The newspapers were not received today.’
- b. *Segodnja ne bylo polučeno gazet.*
 today NEG was.NSG received.PSV.NSG newspapers.FPL.GEN
 ‘No newspapers were received today.’

Babyonyshev et al. (2001) argue that postverbal genitive arguments of unaccusative verbs, as in (232b), move covertly to subject position. Potsdam & Polinsky (2011) refute this argument, demonstrating that these genitive postverbal arguments remain *in situ*. Applying this line of questioning to nominative arguments instead, both internal and external, I argue here that when the postverbal argument is nominative, as in (232a) and (233a), it *does* undergo covert movement to the specifier of TP.

My evidence for this claim comes from binding, control, and scope diagnostics applied to postverbal nominative arguments of transitive, unergative, unaccusative, and passive verbs (that is,

OVS and VS orders). These diagnostics demonstrate that postverbal internal nominative arguments occupy the specifier to TP, even though they are pronounced in their base-generated position. This is an instance of “covert movement”—syntactic movement in which the lower copy of an element, rather than higher copy, is pronounced. The behavior of these postverbal internal nominative arguments contrasts with that of postverbal genitive and dative arguments, whose behavior suggests that they do not occupy any high position—that is, they are pronounced *in situ*. The difference in their behavior is explained by appealing to verbal agreement: only nominative arguments trigger verbal agreement, so only nominative arguments may move covertly.

2.5.1 Diagnostics of covert movement

Three diagnostics suggest that nominative arguments undergo covert movement to a high position, which I take to be the specifier of TP. The behavior of nominative arguments in these constructions contrasts with the behavior of internal arguments that bear genitive of negation and those that are marked with dative case.

2.5.1.1 Binding

One way to test whether a nominative argument has moved to a higher structural position, like the specifier of TP, despite being pronounced postverbally, is to determine whether it has the ability to bind an anaphor located high in the syntactic structure, much like an overtly moved nominative argument can. Arguments that cannot move covertly should not be able to bind high anaphors (Babyonyshev et al., 2001; Polinsky & Potsdam, 2013). As shown in Section 2.4.1, the possessive anaphor *svoj* requires a clausemate binder in the specifier of TP.

In Section 2.4.1, I showed that the binding of *svoj* is not limited to just nominative arguments. Dative arguments may bind *svoj*, given the right configuration, as in (234) (Babyonyshev et al., 2001; Chvany, 1975, 67).

- (234) *Ivanu_i bylo žal sebja_i i svoju_i sobaku.*
 Ivan.MSG.DAT was.NSG sorry.for self.ACC and self's.FSG.ACC dog.FSG.ACC
 'Ivan was sorry for himself and his dog.'

This shows that position, not just case, is relevant for binding *svoj*.

Nominative arguments that are generally assumed to be high, and which are diagnosed as occurring in specifier of TP according to the diagnostics in Section 2.4, such as the preverbal nominative arguments of unaccusatives, are able to bind *svoj*, as in (235).

- (235) *Na svoëm jubilee sam imeninnik tak i ne pojavilsja.*
 at self's party self.MSG.NOM birthday-boy.MSG.NOM so and NEG appeared.MSG
 'The birthday boy himself never even appeared at his own party.'

If nominative postverbal arguments can move covertly to the same high position, we expect them to bind *svoj*; in fact, this prediction is borne out.

Looking first at transitive and unergative verbs, sentence (236) shows that the postverbal nominative argument of a transitive verb can bind *svoj*, and (237) shows that the nominative argument of an unergative verb may do so as well.

- (236) *Na dnjax svoj avtomobil' razbil znamenityj*
 on days self's.MSG.ACC car.MSG.ACC broke.MSG famous.MSG.NOM
futbolist Dèvid Bekxam.
 soccer.player.MSG.NOM David.MSG.NOM Beckham.MSG.NOM
 'The other day, the famous soccer player David Beckham_i crashed his_i car.' (web)
- (237) *V svoëm kabinete rabotaet Samuil Jakovlevič*
 in self's office works.3SG Samuel.MSG.NOM Yakovlevich.MSG.NOM
Maršak.
 Marshak.MSG.NOM
 'Samuel Yakovlevich Marshak_i is working in his_i office.' (web)

This pattern extends to nominative arguments that are base-generated as complements to the verb; sentence (238) shows that a postverbal internal nominative argument can bind an anaphor in a high position. This suggests that the nominative argument has moved to the specifier of TP, from which it can bind *svoj*. By contrast, postverbal genitive arguments cannot bind an anaphor in high position, shown in (239), suggesting that syntactic movement has not taken place.

- (238) *Na svoëm jubilee tak i ne pojavilsja sam*
 at self's anniversary so and NEG appeared.MSG self.MSG.NOM
imeninnik.
 birthday-boy.MSG.NOM
 'The birthday boy himself never even appeared at his own party.'

- (239) * *Na svoëm jubilee tak i ne pojavilos' samogo*
 at self's anniversary so and NEG appeared.NSG self.MSG.GEN
imeninnika.
 birthday-boy.MSG.GEN

Analogously, for passives, postverbal internal nominative arguments may bind anaphors in a high position, as in (240), while postverbal genitive arguments cannot, as in (241). This suggests that the nominative arguments have moved to a specifier of TP, but that the genitive arguments have not.

- (240) *V svoej berloge ne byl najden ni odin medved'.*
 in self's lair NEG was.MSG found.PSV.MSG not one.MSG.NOM bear.MSG.NOM
 'Not one bear was found in his own lair.'

- (241) * *V svoej berloge ne bylo najdeno ni odnogo medvedja.*
 in self's lair NEG was.NSG found.PSV.NSG not one.MSG.GEN bear.MSG.GEN

Other non-nominative arguments also do not appear to move covertly. A small number of two-argument verbs, such as *zavidovat'* 'envy', *verit'* 'believe', and *pomogat'* 'help', take internal arguments marked with dative case instead of the expected accusative. Even though dative arguments

can in principle bind anaphors, as in (234), these dative internal arguments cannot bind a high reciprocal pronoun, as shown in (242).

- (242) * *Poka šli doklady [drug druga]_i Vasja zavidoval*
 while went.3PL presentations.MPL.NOM each other.GEN Vasya.MSG.NOM envied.MSG
devočkam_i.
 girls.FPL.DAT

The evidence presented here shows that, for the purposes of anaphor binding, postverbal nominative arguments of transitives, unergatives, unaccusatives, and passives act as if they have moved covertly to the specifier of TP, but non-nominative postverbal arguments do not.

2.5.1.2 Control

As shown Section 2.4.2, the ability to control a PRO of an adverbial participle also serves as a diagnostic for determining whether an argument moves to the specifier of TP. If the relevant argument has moved to this high position, whether overtly or covertly, it should be able to control a structurally high PRO subject of an adverbial participle (Polinsky & Potsdam, 2013).

In principle, both nominative and dative subjects are able to control PRO (Pesetsky, 1982; Kozinskij, 1983; Moore & Perlmutter, 2000, among others). In (243), a canonical preverbal nominative subject controls a high PRO, and in (244) and (184), repeated below as (245), a dative experiencer argument controls a high PRO.

- (243) *[PRO_i načavšis' iz-za erundy], ix ssory_i uže*
 PRO begun.ADV.PTCP because-of nonsense.FSG.GEN their spats.FPL.NOM already
ne prekraščalis'.
 NEG stopped.PL
 'Having started out of nothing, their quarrels would never stop.'

(Polinsky & Potsdam, 2013)

- (244) *[PRO_i putešestvuja], vam_i udastsja uznať mnogo*
 PRO traveling.ADV.PTCP you.2PL.DAT manage.FUT.3SG learn.INF much.NSG.GEN
novogo.
 new.NSG.GEN
 ‘As you travel you will be able to learn many new things.’

(Polinsky & Potsdam, 2013)

- (245) *Mne_i skučno, [PRO_i slušaja lekcii].*
 me.1SG.DAT boring PRO listening.ADV.PTCP lectures.FPL.ACC
 ‘I am bored listening to lectures.’ (Babby & Franks, 1998)

Because non-nominative arguments can control the PRO of an adverbial participle, it suggests that the position of the controller, not just its case, is relevant for controlling PRO.

Nominative arguments, even when postverbal, have the ability to control the PRO of a structurally high adverbial participle. For example, in (246), the transitive verb takes a nominal argument that appears postverbally and a quotative expression that appears preverbally. The nominative argument controls the participle that appears between the quotative expression and the verb.

- (246) ‘*Barin čelovek zanjatoj, konečno, [...]*’ *[PRO_i skromno*
 master.MSG.NOM person.MSG.NOM busy.MSG.NOM of.course PRO modestly
opustiv glaza], pela gorničnaja_i.
 lowering.ADV.PTCP eyes.MPL.ACC sang.FSG maid.FSG.NOM
 ‘“The master is a busy person, of course. . . ,” the maid sang, modestly lowering her eyes.’

(RNC. N. A. Tëffi. Pokajannoe. 1910.)

Similarly, the postverbal nominative argument of an unergative verb can also control the PRO subject of a high adverbial participle, as in (247) and (248).

- (247) *[PRO_i ne ščadja svoix cil] rabotaet*
 PRO NEG sparing.ADV.PTCP self's.FPL.GEN strengths.FPL.GEN works.3SG
Ruslan Ščerbakov_i...
 Ruslan.MSG.NOM Shcherbakov.MSG.NOM
 'Ruslan Shcherbakov works, not sparing his strengths ...'

(RNC. A. Lysenko. *Xoždenie za tri morja*. 2004.)

- (248) *...da izredka, [PRO_i xlopaja kryl'jami], proletali*
 and occasionally PRO flapping.ADV.PTCP wings.NPL.INST flew.PL
utki_i.
 ducks.FPL.NOM
 '... and occasionally, flapping their wings, ducks were flying.'

(RNC. V. Bykov. *Boloto*. 2001.)

This suggests that the nominative argument has covertly moved to a higher syntactic position from which it can bind PRO.

The ability of postverbal arguments to control PRO extends to internal arguments as well, provided that the argument is nominative. Looking first at unaccusatives, sentence (249) shows that postverbal nominative arguments can control a PRO that appears in a high position, while sentence (250) shows that postverbal genitive arguments do not share the same ability.

- (249) *[PRO_i načavšis' iz-za erundy], uže ne prekraščalis' ix*
 PRO begun.ADV.PTCP because-of nonsense.FSG.GEN already NEG stop.3PL their
ssory_i.
 quarrels.FPL.NOM
 'Having started out of nothing, their quarrels would never stop.'

- (250) * [*PRO_i načavšis'* *iz-za erundy*], *uže ne prekraščalos' ix*
 PRO begun.ADV.PTCP because-of nonsense.FSG.GEN already NEG stop.NSG their
ssor_i.
 quarrels.FPL.GEN

Just as with unaccusatives, with passives, postverbal nominative arguments can control a PRO that appears in a high position, as in (251), while postverbal genitive arguments cannot, as in (252).

- (251) [*PRO_i popavšis'* *na spisyvanii*], *ne byl dopuščen k*
 PRO caught.ADV.PTCP on cheating NEG was.MSG permitted.PSV.MSG to
začėtu ni odin provinivšijsja student_i.
 test.MSG.DAT not one.MSG.NOM guilty.MSG.NOM student.MSG.NOM
 'Having been caught cheating, not a single guilty student was permitted to take the test.'

- (252) * [*PRO_i popavšis'* *na spisyvanii*], *ne bylo dopuščeno k*
 PRO caught.ADV.PTCP on cheating NEG was.NSG permitted.PSV.NSG to
začėtu ni odnogo provinivšegosja studenta_i.
 test.MSG.DAT not one.MSG.GEN guilty.MSG.GEN student.MSG.GEN

Like genitive internal arguments, dative internal arguments also cannot control a high PRO, as in (253).

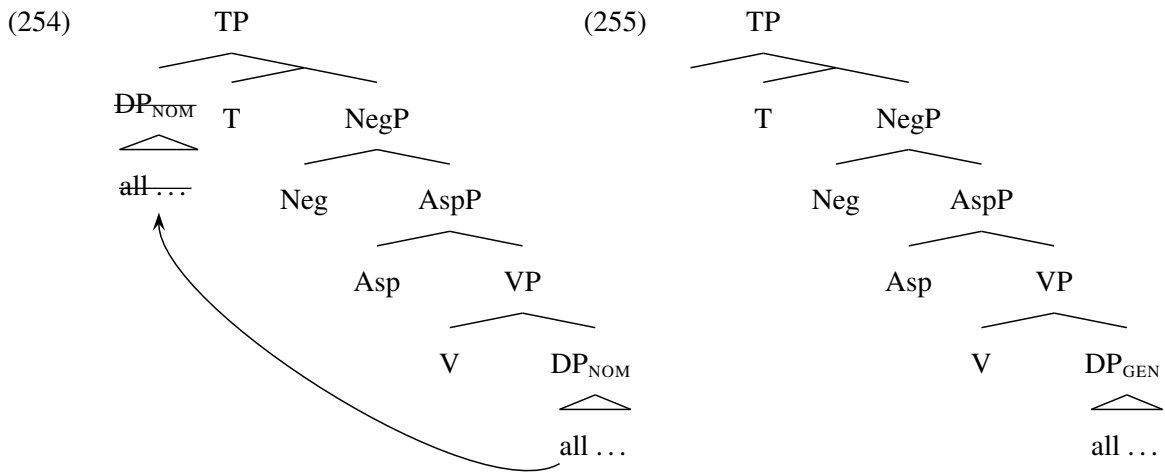
- (253) [*PRO_{*i/j} possorivšis'* *iz-za erundy*], *Vasja_j*
 PRO having.fought.ADV.PTCP because.of nonsense.FSG.GEN Vasya.MSG.NOM
ne zavidoval devočkam_i.
 NEG envy.MSG girls.FPL.DAT
 'Having quarreled because of nonsense, Vasya didn't envy the girls.'

Postverbal arguments, when they bear nominative case, behave like their higher nominative counterparts in their ability to control the PRO of an adverbial participle in a high syntactic position. This provides further evidence that nominative arguments move covertly to the specifier of TP.

2.5.1.3 Scope

Finally, quantifier scope can serve as a diagnostic for covert movement—albeit not necessarily movement to the specifier of TP. A clause with a preverbal nominative argument shows scopal ambiguity as a result of the argument’s high position. Therefore, we expect postverbal nominative arguments that have moved covertly to have the same scopal ambiguity, while an argument that has not moved should take surface scope only.

The trees (254) and (255) illustrate the prediction for postverbal arguments with different case markings. In (254), a quantified nominative argument moves to a high syntactic position; it is able to scope over negation from its high position or under negation from its low position. By contrast, in (255), a genitive postverbal argument, which has not moved, scopes under negation only.



A canonical preverbal nominative subject of an unaccusative verb, one which has moved overtly, can scope above negation from its surface position, or below negation from its base position. Example (256) illustrates the scopal ambiguity with an unaccusative verb whose sole argument is preverbal.

- (256) *Vse ne prišli.*
 all.PL.NOM NEG came.PL
 ‘Everyone didn’t come.’ ALL > NEG
 ‘Not everyone came.’ NEG > ALL

Additionally, a high dative argument can scope either above or below negation, as in (257).

- (257) *Vsem devočkam ne nravitsja èta kniga.*
 all.PL.DAT girls.FPL.DAT NEG like.3SG this.FSG.ACC book.FSG.ACC
 ‘All the girls don’t like this book.’ ALL > NEG
 ?‘Not all the girls like this book.’ ?NEG > ALL

Therefore, we expect that any argument that has moved to a high syntactic position should also have both scope possibilities.

This prediction is borne out: looking first at external arguments, sentence (258) shows that postverbal nominative external arguments have the ability to scope over negation, just as preverbal external nominative arguments do. In (258), the word order is OVS, and the quantifier *vse* ‘everyone’ serves as the nominative subject. Two interpretations of the sentence are possible: the NEG > ALL interpretation and the ALL > NEG interpretation. The first interpretation is preferred, and the two sentences require different intonation. However, given the right context, both interpretations are possible. Sentence (259) illustrates the ability of the sole argument of an unergative verb to scope over negation, despite its being pronounced postverbally.

- (258) *Mašu ne ljubjat vse.*
 Masha.FSG.ACC NEG love.3PL everyone.PL.NOM
 ‘Not everyone loves Masha.’ NEG > ALL
 ‘Everyone doesn’t love Masha.’ ALL > NEG

- (259) *Nu, ne smejalis' vse.*
 well NEG laughed.PL everyone.PL.NOM
 ‘Well, not everyone laughed.’ NEG > ALL
 ‘Well, everyone didn’t laugh.’ ALL > NEG

The same is true of unaccusatives: postverbal nominative arguments may take either scope, as in (260). When the postverbal argument bears genitive case, on the other hand, the genitive argument may take only narrow scope, as in (261).³⁵

- (260) *V čemodan ne pomestilis' vse neobxodimye dlja menja jubki.*
 in suitcase NEG fit.PL all.PL.NOM necessary.FPL.NOM to me.GEN skirts.FPL.NOM
 ‘All the skirts necessary to me did not fit into the suitcase.’ ALL > NEG
 ‘Not all the skirts necessary to me fit into the suitcase.’ NEG > ALL
- (261) *V magazine ne okazalos' vse neobxodimyx dlja menja*
 at store NEG appeared.NSG all.PL.GEN necessary.MPL.GEN for me.GEN
produktov.
 groceries.MPL.GEN
 #‘At the store all the groceries necessary to me turned out not to be there.’ #ALL > NEG
 ‘At the store not all the groceries necessary to me turned out to be there.’ NEG > ALL

Postverbal nominative arguments of passives also allow either scopal interpretation, as expected if covert movement has taken place, as in (262). Postverbal genitive arguments of passives, as in (263), are not possible when the genitive is a quantifier, for independent reasons. This means it is not possible to formulate the right kind of example to test the scope possibilities.

³⁵ Similar judgments are reported in Potsdam & Polinsky (2011) and Polinsky & Potsdam (2013).

- (262) *Na ètom kompjutere ne byli najdeny vse fajly.*
 on this computer NEG were.PL found.PSV.PL all.MPL.NOM files.MPL.NOM
 ‘All the files were not found on this computer.’ ALL > NEG
 ‘Not all the files were found on this computer.’ NEG > ALL

- (263) *?!* Na ètom kompjutere ne bylo najdeno vsech fajlov.*
 on this computer NEG was.NSG found.PSV.NSG all.MPL.GEN files.MPL.GEN

Instead, we can look to quantified dative direct objects of verbs like *verit'* ‘believe’ that appear postverbally, as in (264). Such arguments are not able to scope over negation from their low position.

- (264) *Učitel'nica ne verit vsem učenikam.*
 teacher.FSG.NOM NEG believes.3SG all.PL.DAT students.MPL.DAT
 #‘For all of the students, the teacher does not believe them.’ #ALL > NEG
 ‘The teacher believes not all of the students.’ NEG > ALL

The evidence presented here shows that sole nominative arguments of transitive verbs, unergatives, unaccusatives, and passives can take wide scope; that is, they act as if they have moved to a high position even when pronounced in postverbal position. By contrast, sole genitive arguments of unaccusatives and dative direct objects cannot take wide scope, which suggests that they have not covertly moved to a higher syntactic position; instead, such arguments are pronounced *in situ*.

2.5.1.4 Summary

The data shown here supports the idea that nominative arguments move to the specifier of TP, even when they are pronounced postverbally. Non-nominative internal arguments, on the other hand, show evidence of being in a high syntactic position only when they are pronounced preverbally. Krejci et al. (2018) attribute the difference between nominative and non-nominative arguments to a difference in verbal agreement: only nominative arguments enter into an Agree relationship with T. This results in nominative arguments having the option of being pronounced in either position. By

contrast, non-nominative arguments only have the option of overt movement; that is, they are always pronounced in the highest position that they occupy. This analysis accounts for the differences between nominative and non-nominative arguments with respect to binding, control, and scope.

2.5.2 An alternative analysis: VS order as extraposition

A potential alternative to the analysis presented above is that postverbal arguments are extraposed, a possibility considered by Bailyn (1995), King (1995), Junghanns & Zybatow (1997), and Slioussar (2011). If this is the case, then the binding, control, and scope facts shown above might be explained without appealing to covert movement of the nominative argument to the specifier of TP. On this alternative account, postverbal nominative arguments right-adjoin to a position at least as high as VP, possibly TP. From this high position, they could bind *svoj*, control the PRO of an adverbial participle, and scope over negation, without having covertly moved to the specifier of TP. Here, I argue against this alternative analysis, maintaining my proposal that covert movement of postverbal nominative arguments does take place.

In order to argue against this alternative analysis, I turn to the behavior of depictives, or secondary predicates, such as *p'janyj* 'drunk', as in (265).

- (265) *Ivan* *pojavilsja* *na večerinke* *p'janym*.
 Ivan.MSG.NOM arrived.MSG to party drunk.MSG.INST
 'Ivan arrived at the party drunk.'

Such depictives are generally taken to be a part of small clauses in which the depictive is predicated of a PRO that is coreferential with a noun phrase antecedent (Bailyn & Rubin, 1991; Bailyn, 1995; Franks & Hornstein, 1992). I assume, following Bailyn & Rubin (1991), that depictives adjoin to *vP*.³⁶

If the depictive marks the right edge of the *vP*, then any element occurring to the right of it must be outside of *vP*; that is, the element must be extraposed. For example, postverbal nominative

³⁶ In Bailyn & Rubin's terms, the depictive adjoins to PredP. PredP is equivalent to *vP* in terms of its position in the clausal spine.

arguments of unaccusatives can appear to the right of a depictive, as in (266).

- (266) *Na večerinke pojavilsja pjanym IVAN.*
 at party appeared.MSG drunk.MSG.INST Ivan.MSG.NOM
 ‘It was *Ivan* who appeared at the party drunk.’

When nominative arguments follow a depictive, as in (266), they are stressed and interpreted as being in narrow focus.

Importantly, the nominative argument can also appear to the left of the depictive, as in (267).

- (267) *Na večerinke pojavilsja Ivan pjanym.*
 at party appeared.MSG Ivan.MSG.NOM drunk.MSG.INST
 ‘Ivan appeared at the party drunk.’

Because the depictive marks the right edge of the *vP*, when the nominative argument appears to the left of it, the nominative argument must be pronounced as a part of the verb phrase. That is, when the nominative argument appears to the left of the depictive, it is not extraposed.

Crucially, when the nominative argument precedes the depictive, as in (267), it can still bind a highly-positioned *svoj*, as in (268). That is, even when the nominative argument is not extraposed, instead being pronounced inside the VP, it can bind a high anaphor.

- (268) *Na svoe_i večerinke pojavilsja Ivan_i pjanym.*
 at self’s party appeared.MSG Ivan.MSG.NOM drunk.MSG.INST
 ‘Ivan appeared at his own party drunk.’

In example (268), extraposition is not available to the nominative argument, so we cannot attribute its ability to bind *svoj* to extraposition. Instead, we must attribute its ability to bind *svoj* to covert movement. The nominative argument moves covertly to the specifier of TP, from which position it binds the high anaphor.

In this section, I have argued that nominative arguments that are pronounced postverbally move covertly to the specifier of TP. They share with preverbal nominative arguments the ability to bind

anaphors, control the PRO of an adverbial participle, and scope higher than negation. Further, these properties of the postverbal nominative arguments are likely not due to their being extraposed; instead, even when the postverbal nominative arguments are pronounced inside the VP, they move covertly to the specifier of TP.

2.6 Conclusion

In this chapter, I have outlined several approaches to word order variation in Russian, with particular attention to the derivation of sentences with nominative arguments, and I have concluded, following a large body of research, that word order variation in Russian is a result of syntactic movement. I reviewed the generally uncontroversial evidence that nominative arguments of unaccusative and passive verbs are initially merged as complements of the verb, and that nominative arguments of transitive and unergative verbs are initially merged in a higher syntactic position, specifier of *v*P. I then sketched analyses of previously proposed diagnostics of “subjecthood” in Russian, which led me to confirm the widely accepted view that preverbal nominative arguments occupy specifier of TP; perhaps more importantly, it also allowed me to demonstrate that some of the diagnostics are sensitive to syntactic position, rather than to other properties associated with subjecthood. I then used these diagnostics to support the novel claim that nominative arguments, whether they are initially merged internally or externally to the verb phrase, occupy the specifier of TP, even when they are pronounced postverbally. The hypothesis that nominative arguments can undergo covert movement is an alternative to the existing accounts of subject-final word orders in Russian, one which can derive (O)VS order without relying on, for example, theoretically problematic focus- and topic-driven movement or empirically unmotivated remnant movement.

Chapter 3

Variable unaccusative/unergative behavior

3.1 Introduction

The Unaccusativity Hypothesis, formulated by Perlmutter (1978) and adopted into the Government and Binding framework by Burzio (1981, 1986), posits that there are two classes of intransitive verbs, unaccusatives and unergatives, each associated with a different syntactic representation and concomitantly with different syntactic behavior. One of the major challenges to understanding the unaccusative/unergative dichotomy is the existence of *variable unaccusative/unergative behavior*, in which the same verb alternately displays unaccusative syntactic behavior—behavior that is explainable by reference to an unaccusative syntactic configuration—and unergative syntactic behavior. That is, a given verb might behave as an unaccusative with respect to a construction that is sensitive to the distinction in one sentence, but behave as an unergative with respect to the same construction in another.¹ While some conceptions of the unaccusative/unergative dichotomy consider it to be primarily a semantic distinction—pointing especially to the tendency for the sole

¹ It is also possible for a given verb to behave as an unaccusative with respect to one construction but to behave as an unergative with respect to another; see e.g., Levin & Rappaport Hovav (1995, Ch. 1) or Kural (2002).

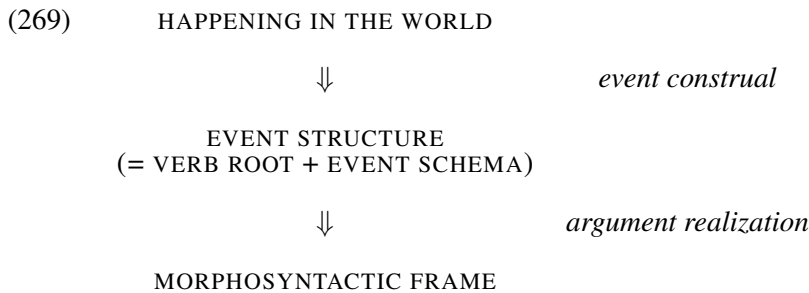
argument of an unergative verb to be an agent and the sole argument of an unaccusative verb to be a patient/theme—in this chapter, I consider the distinction to be a syntactic one. An unergative verb, here, is one that takes a single argument that is introduced external to the verb phrase; an unaccusative verb takes a single argument that is introduced internal to the verb phrase, or, as I illustrate later in the chapter, a small clause complement that introduces two arguments.

Variable unaccusative/unergative behavior in Russian has been discussed most often in the context of the genitive of negation construction, but other hallmarks of unaccusativity, such as first conjunct agreement (FCA), the use of *po* phrases, the use of certain quantificational verbal prefixes, and locative inversion—introduced in Section 2.3—have also been observed to be alternately acceptable and unacceptable with certain verbs, diagnosing a given verb at some times as unaccusative and at other times as unergative (Babby, 1980; Borschev & Partee, 1998; Babby, 2001; Harves, 2003; Partee et al., 2011; Glushan, 2013).

In this chapter, I focus especially on FCA, characterized by Babyonyshev (1996) and Harves (2003) as compatible only with verbs that take an internal argument, such as unaccusatives and passives. Despite its association with unaccusative verbs, FCA is also occasionally observed with verbs that are typically considered unergative; this is particularly the case when such verbs are found with arguments that denote inanimates or that are apparently non-agentive (Crockett, 1976; Corbett, 1983; Glushan, 2013). Additionally, FCA cannot appear in every clause containing a putative unaccusative verb: in some instances, particularly when the verb's argument denotes an animate participant or when the participant is understood as being in control of the event, FCA is impossible even with such verbs. One of the goals of this chapter, then, is to describe the contexts under which FCA can occur in Russian.

The broader goal, however, is a more general one, not limited to Russian or any particular unaccusativity diagnostic: the goal is to explain how variable unaccusative/unergative behavior arises. I argue in this chapter that variable unaccusative/unergative behavior is a consequence of the relationships among happenings in the real world, verb meaning, and syntactic representation, and I develop a model of these relationships in order to account for the variable behavior documented here. In this

model, a happening in the world is linguistically construed as an event of a certain type, meaning that the happening is associated with a particular event structure (Levin & Rappaport Hovav, 2005). This event structure is itself associated with a morphosyntactic frame by argument realization principles, ultimately determining the syntactic behavior of the verb used in the description of the event and its arguments. This is illustrated in (269).



The event structure consists of a verb root combined with an event schema (Pinker, 1989; Pesetsky, 1995; Rappaport Hovav & Levin, 1998; Borer, 2003, 2005; Lieber, 2004), represented in the middle of the diagram above. Crucially for me, a single verb root can be associated with more than one event schema (Hale & Keyser, 2002; Borer, 2005; Ramchand, 2008; Mateu, 2012), which ultimately means that a single verb root can come to be associated with more than one morphosyntactic frame—for my purposes, either an unaccusative or an unergative syntactic structure. This approach can explain why certain semantic factors, such as the animacy and agentivity of the participant(s) in the happening, appear to play a role in whether a given verb behaves as unaccusative or unergative (Crockett, 1976; Corbett, 1983; Babyonyshev, 1996; Harves, 2003; Glushan, 2013); for me, these factors influence how the happening is construed as an event, which determines which type of event schema the verb root is associated with.

My analysis of variable unaccusative/unergative behavior in Russian focuses on happenings in the world that can be construed as “existential events”. In such events, a theme argument is understood as existing at a particular place or time; existential events are associated with an unaccusative syntactic structure. I argue, following the line of work by Borschev & Partee (Borschev & Partee, 1998; Partee & Borschev, 2002, 2004, 2007; Partee et al., 2011), that the roots of many

different verbs—not just inherently existential verbs, but potentially activity verbs, motion verbs, and others—can be used in the description of existential events. Activity verbs and certain motion verbs, in particular, are generally classified as unergative based on both their typical meanings and their syntactic behavior; however, I argue that their use in the description of an existential event licenses an unaccusative syntactic structure. For example, consider (270) and (271). Sentence (270) represents a canonical existential event described by a negated existential verb, and (271) represents an existential event described by a verb typically classified as unergative, also negated. In both sentences, the nominal argument bears genitive case.

(270) *Otca ne bylo na more.*

father.MSG.GEN NEG was.NSG at sea.

‘There was no father at sea.’

(271) *Ne begalo tarakanov.*

NEG ran.NSG cockroaches.MPL.GEN

‘There were no cockroaches running around.’

I follow Borschev & Partee and Babby (2001) in assuming that genitive case in negated sentences in Russian is allowed on (surface) subjects only in sentences that describe existential events, and further argue that FCA is found only in such sentences, as well. I show how putative unergative verbs like *begat'* ‘run’ in (271) can be used in the description of existential events, and I argue that the association of the verb root with an unaccusative syntactic structure allows the appearance of FCA and the genitive of negation construction.

The analysis that I develop can be illustrated by examining the variable behavior of spatial configuration verbs like *stojat'* ‘stand’, which, while sometimes classified as unaccusative verbs, nevertheless can “fail” unaccusative diagnostics, such as FCA as illustrated in (272), cf. (273).

(272) * *Na lestničnoj ploščadke stojal sosed i ego brat.*

on stairway landing stood.MSG neighbor.MSG.NOM and his brother.MSG.NOM

intended: ‘My neighbor and his brother were standing on the stairway landing.’

- (273) *Na stole stojal stakan i kuvšin.*
 on table stood.MSG glass.MSG.NOM and jug.MSG.NOM
 ‘On the table stood a glass and a jug.’

I understand the contrast between (272) and (273) as arising due to the potential of the verb root to be associated with either of two event schemas, an activity event schema or an existential event schema. Each of the two resulting event structures represents one of two distinct uses found with spatial configuration verbs—as is well known, these verbs can be used agentively or non-agentively (Levin & Rappaport Hovav, 1995; Rappaport Hovav & Levin, 2000). When the participant of a standing event is agentive, it exerts energy to maintain its position; when the participant is non-agentive, it is not understood as exerting energy to maintain its position when it is in a particular spatial configuration. In (272), the participants are animate and are therefore likely to be interpreted as agents of the standing event. In this instance, the verb root is associated with an activity event schema, leading to unergative syntactic behavior. By contrast, the participants in (273) are inanimate and therefore necessarily non-agentive; in this instance, the verb root is associated with an existential event schema, leading to unaccusative syntactic behavior.

This analysis explains the unexpected use of FCA and the genitive of negation with verbs that are putatively unergative in Russian, such as activity verbs and manner of motion verbs. And, as I show in Section 3.5.3.2, it also provides insight into why these two constructions are incompatible with change of state verbs—happenings with a change of state component are not able to be construed as existential events, rendering FCA and the genitive of negation impossible with such verbs. The analysis also accounts for observed interpretive differences between Russian sentences with the hallmarks of unaccusativity and those with the hallmarks of unergativity that use the same verb—for me, the structural differences indicate that distinct event schemas are associated with the verb root in each instance; the event schemas themselves reflect the way that the happening in the world is construed as an event. Finally, while I analyze the variable unaccusative/unergative behavior in Russian with respect to these two diagnostics as contingent on the construal of the happening in the

world as an existential event, I do not claim that all such behavior depends on the (un)availability of an existential construal. The framework presented here is a broad one; it can account for variable unaccusative/unergative behavior in, e.g., agentive manner of motion constructions in English, as presented in Section 3.5.2, as well as with English precipitation verbs like *rain* and *snow* (Levin & Krejci, 2019).

The chapter is organized as follows. In Section 3.2, I review characterizations of FCA; while some authors consider it to be a diagnostic of syntactic unaccusativity, others describe its distribution in semantic terms, arguing that the animacy, agentivity, and/or (a particular kind of) “experiencerhood” of the event participants influences whether FCA is acceptable in a given sentence. In Section 3.3, I illustrate the parallels between FCA and other putative unaccusative diagnostics, showing that certain verbs display systematically variable behavior with respect to all of the diagnostics; importantly, their behavior with respect to these diagnostics parallels their behavior with respect to FCA—the same semantic factors determine whether the verbs show unaccusative or unergative syntactic behavior with respect to each diagnostic. In Section 3.4, I review approaches in the literature to variable behavior verbs across languages, showing how such analyses might be applied to Russian. Section 3.5 presents the main proposal of the chapter: I outline a model of the relationships among happenings in the real world, verb meaning, and syntactic representation that allows me to account for variable unaccusative/unergative behavior in Russian and beyond. Section 3.6 concludes.

3.2 Characterizations of first conjunct agreement

First conjunct agreement, or FCA, has been argued to be a diagnostic of unaccusativity, occurring with passive transitive verbs and putative unaccusative verbs, and prohibited with active transitive verbs and putative unergative verbs (Babyonyshev, 1996; Harves, 2003). The distribution of FCA, however, can be characterized in alternative ways as well: some authors interpret the data to indicate that FCA is sensitive to semantic factors such as the animacy, volitionality, agentivity, or “experiencerhood” (in a certain sense) of the participants in the event described by the verb, rather than

the unaccusativity class of the verb *per se* (Corbett, 1983; Crockett, 1976; Glushan, 2013, respectively). In this section, I review previous characterizations of FCA in Russian, providing a view of the empirical landscape. Ultimately, I make a proposal that incorporates insights from each of these perspectives; I argue that FCA *should* be considered a diagnostic of syntactic unaccusativity, but that semantic factors like animacy and volitionality are still relevant to its distribution—such factors contribute to variable unaccusative/unergative behavior, in a sense to be made more specific in Section 3.5. I turn first to early corpus work that focuses on the connection between animacy, agentivity, and the availability of FCA.

3.2.1 Animacy and agentivity

Corbett (1983) examines five small corpora of Russian, looking specifically at what agreement is realized when the nominative argument of the verb consists of two apparently conjoined noun phrases. His goal is to identify factors that influence whether the verb displays plural agreement or agreement with the linearly closest conjunct to the verb. The first factor he identifies is the order of the verb in relation to the conjoined noun phrases. In sentences with SV word order, agreement of the predicate with the closest conjunct (that is, last conjunct agreement) is very infrequent, occurring in 0–26% of examples, depending on the corpus; in VS sentences, agreement of the predicate with the closest conjunct (that is, FCA), is much higher, occurring in 30–79% of examples. The second factor influencing agreement realization is the animacy of the participants denoted by the conjoined noun phrases.² When both of the conjoined noun phrases denote inanimate participants, between 32 and 85% of examples show singular agreement, depending on the corpus, while conjoined noun phrases that both denote animate participants appear with singular predicate agreement in only 4–22% of examples. Corbett finds that the effect of animacy is stronger in literary language than in spoken dialect data.

In looking at the interaction of these factors, Corbett concludes that if the word order is SV and

² This factor is assessed independently of word order, meaning that some of the following examples display first conjunct agreement and some display last conjunct agreement.

the participants are animate, then plural agreement always results; if only one of those is true, then plural agreement is strongly preferred; and if neither is true, then singular is preferred. He argues, however, that the two factors are not entirely independent: animates are more likely than inanimates to be topics, and Russian topics must occur preverbally.

Corbett also comments on the choice of the predicate in relation to agreement with conjoined noun phrases. He follows Potapova (1962, 65–67) in classifying predicates as either “active” or “non-active” predicates. “Active” predicates are those that denote moving or doing, as in (274) and (275).

(274) *Naperėd idut pop i djakon.*
 in.front go.PL pope.MSG.NOM and deacon.MSG.NOM
 ‘In front go the pope and the deacon.’ (Corbett, 1983, 108)

(275) *grob, muzyka, toržestvonnaja pečal' obstanovki*
 coffin.MSG.NOM music.FSG.NOM solemn sorrow.FSG.NOM of.surroundings
dejstvovali na neě
 acted.PL on her
 ‘the coffin, the music, and the sorrow of the surroundings acted on her’ (Corbett, 1983, 120)

“Non-active” predicates, by contrast, denote “being, state, and presence” (Potapova, 1962, 65–67), as in (277) and (278).³

³ In addition to considering conjoined noun phrases that involve the conjunction *i* ‘and’, Corbett examines those involving *da* ‘and’, as in (277), and those with no overtly expressed conjunction, as in (275), and such examples are included in the percentages above. In this dissertation, I focus exclusively on conjoined phrases using *i*. Additionally, the members of conjoined noun phrases in Corbett’s examples may be mass nouns, such as *luk* ‘onion’ in (276), and collective nouns, such as *pravitelpal* ‘government’, *rajkom* ‘district committee’, and *kolhoz* ‘collective farm’.

(276) *Kartoški / morkoška / r'it'ka / luk rostėt /*
 potatoes.FPL.NOM carrot.FSG.NOM radish.FSG.NOM onion.MSG.NOM grow.3SG
brjukva
 rutabaga.FSG.NOM
 ‘Potatoes, carrots, radishes, onions, and rutabaga grows.’ (Corbett, 1983, 124)

I exclude examples with conjoined mass nouns and collective nouns from consideration here. See Section 4.2 for a discussion of mass and collective nouns in FCA constructions.

- (277) *Žyl-był starik da staruxa.*
 lived.MSG-was.MSG old.man.MSG.NOM and old.woman.FSG.NOM
 ‘There lived an old man and an old woman.’ (Corbett, 1983, 112)
- (278) *Teper’ na nej byl sinij kostjum i novaja belaja bluzka...*
 now on her was.MSG blue dress.MSG.NOM and new white blouse.FSG.NOM
 ‘Now she was wearing a blue dress and a new white blouse...’ (Corbett, 1983, 117)

While there is a marked difference in the frequency of singular agreement when the predicate is classified as “active” (0–13%) and the frequency of singular agreement when the predicate is classified as “non-active” (26–58%), there is substantial overlap between sentences with “active” predicates and those with animate participants. On Corbett’s view, the classification of the predicate as “active” or “non-active” should not be considered an independent factor, but should instead be subsumed under the factor of animacy. A noun that is grammatically animate may “operate as” an animate in moving or doing some action, as in (274), or it may fail to “operate as” an animate (i.e. appear with a non-active predicate), as in (277). Similarly, a noun that is grammatically inanimate may “operate as” an animate, as in (275), or as an inanimate, as in (278). This idea can be schematized as the animacy hierarchy reproduced in Table 3.1.

Table 3.1: Degrees of animacy (Corbett, 1983, 121)

animate		inanimate	
operating as animate (“active”)	not operating as animate (“non-active”)	operating as animate (“active”)	not operating as animate (“non-active”)
⇐ most animate		least animate ⇒	

According to Corbett, then, the distribution of FCA is influenced by the degree of animacy that the participants in the happening display—as determined by both the literal animacy of the participants

as well as the degree of “activity” that is attributed to them in the sentence.

Corbett’s definition of “animacy” is unusual here—generally, “animacy” is understood to be a property of the noun alone, as determined by either the qualities of the real-world referent of the noun, or, in the instance of Russian, a grammatical property that is lexically specified for each noun. Instead, the “degree of animacy”, as Corbett defines it in this work, could be understood as a proxy for a related concept—agentivity. Animacy and agentivity are related concepts in that an agent is animate by definition, but the concepts are not identical—not all animates, of course, are agents. Corbett’s findings could be recast in terms of agentivity in order to see how well they align with other research. A predicate that is “active”, in Corbett’s terms, could instead be considered one in which the participants are understood as agentive,⁴ and a predicate that is “non-active”, in Corbett’s terms, could be considered one in which the participants are non-agentive or one in which the agentivity of the participants is not important. When Corbett’s terms are interpreted in this way, his description of FCA in Russian aligns well with related research, which I discuss in the following subsection.

3.2.2 Responsibility and agentivity

Crockett (1976) provides a characterization of the distribution of FCA which is not identical to, but which largely overlaps with, Corbett’s (1983) account. Under Crockett’s characterization, the acceptability of FCA depends on whether the participants are “perceived [by the speaker] as responsible for the action, event, state, or process signified by the predicate” (Crockett, 1976, 218–221). The concept of responsibility is related to animacy in that a participant that is perceived as responsible for the event is, for Crockett, necessarily animate. For example, for her, the inanimate participants in (279) cannot be considered responsible for their physical positions, but the animate participants in (280) can be. This difference corresponds to a difference in the acceptability of FCA.

⁴ If such a reinterpretation of Corbett’s work is made, it is unclear how to treat examples like (275), in which an inanimate argument is “operating as” an animate—under standard assumptions, such an argument should not be considered an agent.

- (279) *Na stole stojala pepel'nica i pustoj stakan.*
 on table stood.FSG ashtray.FSG.NOM and empty glass.MSG.NOM
 ‘On the table stood an ashtray and an empty glass.’ (Crockett, 1976, 216)
- (280) * *Vo dvore stojala Valja i Nina.*
 in courtyard stood.PST.FSG Valya.FSG.NOM and Nina.FSG.NOM
 intended: ‘In the courtyard stood Valya and Nina.’ (Crockett, 1976, 216)

The concept of “responsibility” for an action is also related to the concept of agentivity; prototypical agents are responsible for the actions denoted by their verbs.

According to Crockett, inanimate entities cannot be considered responsible for the event in which they participate, and therefore FCA is predicted to always be acceptable when noun phrases denoting inanimates appear in the relevant configuration. As a test case, we can consider natural force participants like the sun, wind, and rain, which can be causers of certain events, and which could potentially be considered responsible for such events—therefore predicted to not appear with FCA. In fact, it is possible for natural forces like *veter* ‘wind’ and *dožd’* ‘rain’ to trigger FCA, in at least some sentences, as in (282), cf. (281).

- (281) *Šumeli/*Šumel Vanja i Kolja.*
 made.noise.PST.PL/*MSG Vanya.MSG.NOM and Kolya.MSG.NOM
 ‘Vanya and Kolya were making noise.’ (Crockett, 1976, 219)
- (282) *Šumeli/Šumel veter i dožd’.*
 made.noise.PST.PL/MSG wind.MSG.NOM and rain.MSG.NOM
 ‘The wind and rain were whooshing.’ (Crockett, 1976, 219)

Natural forces may be considered effectors of an event of making noise, but they are not volitional actors nor agents in the narrow sense of the term (see Van Valin & Wilkins, 1996). Examples like (281) and (282) could be viewed in several ways—the contrast in acceptability between (281) and (282) could be due to the contrast in the animacy of the participants, the contrast in the (perceived)

responsibility for the event, the contrast in the agentivity of the participants, or possibly a contrast in whether or not the participants are causers of the event.

Under both Corbett's and Crockett's analyses, the literal animacy of the participants is not the only factor determining whether FCA is acceptable in a given sentence. For Crockett, the attribution of responsibility for the action must play a role, while for Corbett, the "activeness" of the predicate matters. For example, the participants in (283) and (284) are animate, but FCA is allowed in both instances.

(283) *U nego byla mjagkaja mat' i grubyj avtoritarnyj otec.*
 at him was.FSG gentle mother.FSG.NOM and coarse authoritarian father.MSG.NOM
 'He had a gentle mother and a coarse authoritarian father.' (Crockett, 1976, 217)

(284) *Kogda-to... na xutore žila devočka let odinnadcati-dvenadcati i eë*
 once in hamlet lived.FSG girl.FSG.NOM years eleven-twelve and her
brat...
 brother.MSG.NOM

'Once... in a small village there lived a girl of eleven or twelve and her brother...'

(Crockett, 1976, 217)

According to Crockett, the animate participants in (283) and (284) are not perceived as responsible for the states denoted by the predicates; FCA is therefore allowed. By contrast, according to Corbett, the predicates *est'* (the existential verb) and *žit'* 'live'—verbs that denote being, state, and presence rather than moving or doing—are "non-active"; therefore, the participants are not "operating as" animates and are therefore compatible with FCA. In this way, both accounts are able to explain why certain animate arguments are able to trigger FCA.

The two analyses, however, may diverge in their predictions concerning verbs involving mental activity. According to Crockett (1976, 221), participants "need not necessarily be active or actually do something" in order to be considered responsible for the event described by the verb; instead, "awareness [of the event] appears to be the key criterion". In her view, the participants in (285)

and (286) are considered responsible in some sense for their attitudes; this results in incompatibility with FCA.⁵

- (285) *V boga u nas verili/*verila babuška i tětja.*
 in God at us believed.PL/FSG grandmother.FSG.NOM and aunt.FSG.NOM
 ‘Those who believed in God at home were my grandmother and aunt.’

(Crockett, 1976, 221)

- (286) *Poexat' na jug xotjat/*xočet Saša i Kolja.*
 go.INF to south want.PL/MSG Sasha.MSG.NOM and Kolya.MSG.NOM
 ‘Those who want to go to the south are Sasha and Kolya.’

(Crockett, 1976, 222)

By contrast, it is unclear what Corbett’s (1983) account would predict about such sentences. On the one hand, the verbs *verit'* ‘believe’ and *xotet'* ‘want’ could be classified as “non-active” verbs, denoting (mental) states, rather than “active” verbs, denoting movement or action—therefore predicting that FCA should be possible. On the other hand, such verbs require that their arguments are animate; this may be “enough”, under Corbett’s analysis, for FCA to be disallowed. Another possibility is that the property of sentience or perception, one of the properties contributing to the agent proto-role in Dowty’s (1991) system, means that the arguments in (285) and (286) count as agents for the purposes of argument realization.

3.2.3 Experiencerhood

The question of the mental involvement of the participants comes up in more recent work, too, concerning FCA in Russian. Glushan (2013) argues that the ability of conjoined noun phrases to trigger FCA depends on their thematic role. For her, entities that are not mentally involved in the event, including all inanimates as well as, e.g., unconscious animates, are themes. Meanwhile,

⁵ Under my account, described in Section 3.5, neither verb is expected to appear with FCA, but for a reason not directly related to animacy, agentivity, or mental awareness: neither verb is intransitive. Specifically, neither verb root is associated with an event schema that is itself associated with an unaccusative morphosyntactic frame; this makes the verbs incompatible with FCA in (285) and (286).

entities that are mentally involved in the event, like conscious animates, take on the thematic role of experiencer. Importantly, for her, a single argument may bear more than one thematic role, so even if a given argument is considered to be the theme argument of a verb, if the participant is animate and mentally aware of the event, it is *also* considered an experiencer.

For example, in (287), the participants denoted by the conjoined nominative noun phrases are inanimate and therefore cannot be experiencers. The verb can therefore appear with FCA.

- (287) *Na stole stojala lampa i pustoj stakan.*
 on table stood.FSG lamp.FSG.NOM and empty glass.MSG.NOM
 ‘On the table stood a lamp and an empty glass.’ (Babyonyshev, 1996, 7)

By contrast, the participants denoted by the conjoined nominative noun phrases in (288) are animate. In this example, there is no special context indicating that the animate participants are unconscious, so one can assume that they are conscious during, and aware of, the event of standing. Because they are mentally aware of the event in which they are participating, Glushan considers them experiencers of the standing event. As a result, the verb cannot appear with FCA.

- (288) **Na ulice stojala Daša i Maša.*
 on street stood.FSG Dasha.FSG.NOM and Masha.FSG.NOM
 intended: ‘Dasha and Masha stood outside.’ (Glushan, 2013, 281)

Glushan’s account makes predictions that overlap with those of Corbett and Crockett. For example, her account correctly predicts that verbs that require the mental involvement of their participants, as the mental activity verbs in (285) and (286), are not compatible with FCA.

Glushan’s analysis differs from Corbett’s and Crockett’s in one important way: while their descriptions of FCA are based only on semantic generalizations, for her, the syntactic representation of the sentence plays a crucial role. The thematic role that an argument may bear directly corresponds to the argument’s position in the syntactic representation, and the argument’s position within the syntactic representation determines whether FCA is possible. Her work builds on insights from Babyonyshev (1996) and Harves (2003), which I turn to in the following subsection.

3.2.4 Syntactic unaccusativity

In the first Minimalist treatment of FCA in Russian, Babyonyshev (1996) argues that the distribution of FCA depends on the argument structure of the verb involved. For her, a verb displaying FCA must be syntactically unaccusative, meaning that its nominative argument is introduced as the sister to the verb; this view is shared by Harves (2003) and Glushan (2013) (in adapted format for the latter, to be described shortly). Babyonyshev argues that the preverbal element (often a prepositional phrase) in FCA constructions, as in (287), repeated below as (289), as well as locative inversion constructions, as in (290), and genitive of negation constructions, as in (291), occupies the specifier of TP.

- (289) *Na stole stojala lampa i pustoj stakan.*
 on table stood.FSG lamp.FSG.NOM and empty glass.MSG.NOM
 ‘On the table stood a lamp and an empty glass.’ (Babyonyshev, 1996, 7)
- (290) *Na stole stojali lampa i pustoj stakan.*
 on table stood.PL lamp.FSG.NOM and empty glass.MSG.NOM
 ‘On the table stood a lamp and an empty glass.’ (Babyonyshev, 1996, 7)
- (291) *V ètom rajone ne živët ni odnogo moego znakomogo.*
 in this region NEG lives.3SG not one my acquaintance.MSG.GEN
 ‘Not a single one of my acquaintances lives in this area.’ (Babyonyshev, 1996, 7)

For Babyonyshev, the underlying position of the internal argument of a verb and the underlying position of certain prepositional phrases are equidistant to the specifier of TP, and either may move to the specifier of TP. In sentences (289)–(291), the Extended Projection Principle (EPP) is satisfied by the preverbal prepositional phrase; this allows the postverbal argument in this construction to remain in its base-generated position as sister to the verb. From this position, it is possible for T to agree with the first conjunct, resulting in FCA.

By contrast, FCA cannot appear with what Babyonyshev takes to be unergative verbs. Sentences (292) and (293) contain intransitive verbs that take agentive arguments, and FCA is disallowed.

- (292) * *Na včerinke igral Andrej i Kolja.*
 at party played.MSG Andrey.MSG.NOM and Kolya.MSG.NOM
 intended: ‘Andrey and Kolya played at the party.’ (Babyonyshev, 1996, 60)
- (293) * *Pei d'jačok i pis'movoditel'*
 sang.MSG sexton.MSG.NOM and clerk.MSG.NOM
 intended: ‘Those singing were the sexton and the clerk.’ (Babyonyshev, 1996, 60)

Babyonyshev also considers symmetrical predicates, as in (294) (in which the participants in the event are also agentive), and certain intransitive verbs formed from transitives by the addition of the suffix *-sja*, as in (295), to be unergative verbs. In fact, these verbs, too, cannot bear FCA.⁶

- (294) * *V èto vremja podralsja Robert i Griša.*
 at that time fought.MSG Robert.MSG.NOM and Grisha.MSG.NOM
 intended: ‘Robert and Grisha had a fight.’ (Babyonyshev, 1996, 60)
- (295) * *Iz vsex sobak kusaetsja ètot pudel' i ta ovčarka*
 out.of all dogs bite.3SG this poodle.MSG.NOM and that
 German.Shepherd.FSG.NOM
 intended: ‘Out of all the dogs, this poodle and that German Shepherd bite.’
 (Babyonyshev, 1996, 60)

On Babyonyshev’s account, sentences containing an unergative verb that displays FCA are ruled out as follows. The sole argument of the unergative verb originates in a higher syntactic position than the sole argument of an unaccusative verb; in this position, it is closer to the specifier of TP than the prepositional phrase is. In order to satisfy the EPP requirement on T, some element must move to occupy specifier of TP, and, unlike in the previous scenario, there is only one licit option: the sole

⁶ Because the verbs in these examples are agentive, according to the proposal in Section 3.2.1, they would be associated with an unergative syntactic structure, which rules out FCA. Further, Siloni (2002) argues that reciprocal verbs like *podrat'sja* ‘fight (one another)’, are likely to be unergative.

argument of the verb must move to the specifier of TP. This movement, however, would lead to a different word order than in (292)–(295). That is, the only licit option is for the sole argument of the verb to precede the verb. Instead, what must happen to derive sentences (292)–(295) is that the EPP be satisfied by the movement of the prepositional phrase, instead of the external argument of the verb. This derives the word order and agreement pattern in (292)–(295), but it involves the non-local movement of the prepositional phrase. In this way, Babyonyshev (1996) and Harves (2003) attribute the distribution of FCA to the syntactic height of the verb's argument.

Glushan (2013) adapts this idea, bringing together the insights from Crockett (1976) and Corbett (1983) that the availability of FCA seems to depend on the semantic properties of the conjoined noun phrases with the insight from Babyonyshev (1996) and Harves (2003) that FCA seems to depend on the syntactic height of the conjoined noun phrases. For her, when the sole argument of a verb is a theme and is not assigned the thematic role of experiencer, it has a position low within the verb phrase, as sister to the verb. Just as under Babyonyshev's and Harves's accounts, the EPP may then be satisfied by a preverbal prepositional phrase; the postverbal conjoined argument remains in its base position, from which T can initiate agreement with the first conjunct. By contrast, on Glushan's account, if a participant in an event is mentally involved in the event, it must be assigned the experiencer thematic role. In order for that to happen, it must move to a higher syntactic position, such as the specifier of *v*P or perhaps AspP. In this higher syntactic position, the argument is now closer to the specifier of TP than the prepositional phrase; because it is closer, it must move to the specifier of TP to satisfy the EPP, and T cannot initiate agreement with the first conjunct. Instead, plural agreement always arises.

Glushan's analysis is able to explain why sentences like (287) and (288), which have the same verb, *stojat'* 'stand', should differ in the acceptability of FCA. Because the participants differ in their mental involvement in the event, for her, they also differ in their syntactic position. The difference in syntactic height corresponds to the difference in agreement possibilities.

3.3 Other hallmarks of unaccusativity in Russian

The distribution of FCA parallels that of several other constructions in Russian; the genitive of negation construction, certain uses of *po* phrases, and certain uses of quantificational prefixes are also sensitive to the agentivity of the verb's arguments and related semantic factors. As discussed in Chapter 2, all four of these phenomena have been said to correlate with the unaccusativity of the verb (Schoorlemmer, 1995; Babyonyshev, 1996; Harves, 2003; Glushan, 2013). The correlation, however, is imperfect; for example, as several authors have pointed out, the genitive of negation construction can sometimes occur with putative unergative verbs, and it cannot occur with certain putative unaccusative verbs (Babby, 1980, 2001; Borschev & Partee, 1998; Partee & Borschev, 2004, 2007; Partee et al., 2011; Kagan, 2013); indeed, not all authors consider the genitive of negation to be a unified phenomenon (see Partee & Borschev, 2004, Section 4).

For example, the verb *rabotaet* 'work' is usually classified as unergative and its argument is usually considered agentive, but the argument may sometimes appear with genitive of negation, as in (296).

- (296) ... *tam ne rabotaet ni odnogo inženera.*
 there NEG works.3SG not one.MSG.GEN engineer.MSG.GEN
 '... there hasn't been a single engineer working there.' (Babby, 2001)

Sentence (296) has an existential flavor, which has been argued to be related to the exceptional use of genitive of negation (Partee & Borschev, 2004); I agree, and I take up this issue in Section 3.5.3.

For other verbs, the choice of genitive *versus* nominative case under negation appears to relate to the semantic interpretation of the sentence. Pesetsky (1982), arguing that the genitive of negation serves as an unaccusativity diagnostic, discusses the behavior of the verb *plavat'*, which can have an agentive interpretation, translated as 'swim', or a non-agentive interpretation, translated as 'float'. When the sole argument of *plavat'* is nominative, either interpretation is possible. By contrast, when the sole argument of *plavat'* bears genitive case under negation, only one interpretation—the non-agentive one—is available. The possibilities are shown in (297) and (298), in which the translations

indicate the possible interpretations.

- (297) a. *V bassejne nikakoj rebënok ne plavaet.*
 in pool no.MSG.NOM child.MSG.NOM NEG swims/floats.3SG
 ‘No child is swimming/floating in the pool.’ (Pesetsky, 1982, 45)
- b. *V bassejne nikakogo rebënka ne plavaet.*
 in pool no.MSG.GEN child.MSG.GEN NEG floats/*swims.3SG
 ‘No child is floating in the pool.’
 ≠ ‘No child is swimming in the pool.’ (Pesetsky, 1982, 45)
- (298) *V supe ne plavalo nikakogo mjasa.*
 in soup NEG floated.NSG no.NSG.GEN meat.NSG.GEN
 ‘No meat was floating in the soup.’ (Babby, 1980, 18)

In other words, the agentive interpretation of *plavat'* is not compatible with the use of genitive of negation.

Harves (2003) agrees that the availability of the genitive of negation construction is affected in some instances by the animacy and perceived agentivity of the participants. For example, some deadjectival verbs of becoming, such as *belet'* ‘be/turn white’, *glupet'* ‘become stupid(er)’, *želtet'* ‘be/turn yellow’, *krasnet'* ‘be red, redden, blush’, *sinet'* ‘be/become blue(r)’, *staret'* ‘become old(er)’, *tolstet'* ‘become fat(ter)’, *umnet'* ‘become smart(er)’, and *černet'* ‘be/turn black’, may assign genitive case under negation when they have inanimate arguments, as in (299), but not in clauses with animate arguments, as in (300)–(302).

- (299) ? *Vo vremja èksperimenta ni odnoj lakmusovoj bumažki ne*
 in time experiment.GEN not one litmus paper.FSG.GEN NEG
po-sinelo.
 PRF-became.blue.NSG
 ‘During our experiment, not a single litmus paper turned blue.’ (Harves, 2003, 311)

- (300) * *Ni odnogo studenta ne po-glupelo za semestr.*
 not one student.MSG.GEN NEG PRF-became.stupid.NSG in semester
 intended: ‘Not a single student became more stupid over the course of the semester.’
 (Harves, 2003, 311)
- (301) * *Ni odnoj studentki ne po-krasnelo vo vremja spektaklja.*
 not one student.FSG.GEN NEG PRFblushed.NSG in time performance.GEN
 intended: ‘Not a single female student blushed during the performance.’
 (Harves, 2003, 311)
- (302) * *Ni odnogo človeka ne po-tolstelo vo vremja vojny.*
 not one person.MSG.GEN NEG PRF-became.fat.NSG in time war.GEN
 intended: ‘Not a single person became fat(ter) during the war.’ (Harves, 2003, 311)

Harves attributes this distinction between animate and inanimate arguments to the agentivity, or potential for agentivity, of the participants denoted by the conjoined noun phrases. Her informants volunteered that the animate subjects in the sentences above were “active” in achieving their result state: “in order to become fat, one must eat, in order to become smarter, one must study” (Harves, 2003, 312).⁷

By contrast, Glushan (2013) would instead attribute the behavior of the deadjectival verbs of becoming to the experiencerhood of the arguments. She shows that the verb *rasti* ‘grow’, traditionally considered unaccusative, can appear with genitive of negation when its argument is an (inanimate) argument that does not mentally experience the event, as in (303), but not when it is mentally aware of the event in which it is participating, as in (304).

- (303) *Nikakix gribov zdes' ne rastët.*
 no.PL.GEN mushrooms.PL.GEN here NEG grows.3SG
 ‘No mushrooms grow here.’ (Glushan, 2013, 60)

⁷ One might argue, however, that a participant is probably not active in blushing, nor in becoming stupider or becoming older.

- (304) * *Nikakogo rebënka ne rastët.*
 no.MSG.GEN child.MSG.GEN NEG grows.3SG
 intended: ‘No child grows.’ (Glushan, 2013, 60)

The animate participant in (304) is an “experiencer” in Glushan’s terms, but not an agent of the growing event. This suggests that the acceptability of the genitive case *versus* nominative case under negation is not due to the *agentivity* of the participant per se, but to some other factor such as the “experiencerhood” of the participant.

A second unaccusativity diagnostic, first discussed in Section 2.3.2, displays behavior similar to the genitive of negation. The preposition *po* can distribute over the sole argument of the deadjectival change of state verbs mentioned above, again apparently only when the argument is inanimate, as in (305), and not when the argument is animate, as in (306)–(308).

- (305) *Na každoj vetke poželtelo po listiku.*
 on every branch became.yellow.NSG PO leaf.DAT
 ‘A (different) leaf became yellow(er) on each branch.’ (Glushan, 2013, 56)
- (306) * *V každom gorode potolstelo po milicioneru.*
 in every town became.fat.NSG PO officer.DAT
 intended: ‘A (different) officer in every town became fat(ter).’ (Harves, 2003, 311)
- (307) * *V každoj gruppe poumnelo po devuške.*
 in every group became.smart.NSG PO girl.DAT
 intended: ‘In every group a (different) girl became smart.’ (Harves, 2003, 311)
- (308) ?? *V každoj kvartire postarelo po babuške.*
 in every apartment became.old.NSG PO grandmother.DAT
 intended: ‘A (different) grandmother grew older in every apartment.’ (Harves, 2003, 311)

The variable behavior extends to verbs beyond the deadjectival change of state verbs, as illustrated in (309) with *rasti* ‘grow’.

- (309) a. *Po jabloku roslo na každom dereve.*
 PO apple.NSG.DAT grew.NSG on each tree
 ‘An apple grew on each tree.’ (Glushan, 2013, 57)
- b. **Po mal’čiku roslo v každom dvore.*
 PO boy.MSG.DAT grew.NSG in each yard
 intended: ‘A boy was growing in each yard.’ (Glushan, 2013, 58)

Finally, the distribution of the quantificational verbal prefix *na-* also appears to vary depending on similar factors. Glushan (2013) argues that *na-* more readily appears on an unaccusative verb when the sole argument of the verb is inanimate, as in (310), again illustrated with *rasti* ‘grow’.

- (310) a. *Mnogo travy na-roslo v parke.*
 much grass.FSG.GEN NA-grew.NSG in park
 ‘A lot of grass grew in the park.’ (Glushan, 2013, 5)
- b. **Mnogo detej na-roslo za vesnu.*
 many children.PL.GEN NA-grew.NSG in spring
 intended: ‘A lot of children have grown over the spring.’ (Glushan, 2013, 6)

These three unaccusative phenomena—the genitive of negation construction, the distribution of certain *po* phrases, and the distribution of the quantificational verbal prefix *na-*—seem to pattern like FCA in being roughly correlated with syntactic unaccusativity, but also in being sensitive to semantic factors such as the animacy, agentivity, and/or experiencerhood of the arguments. Beyond Russian, in research on unaccusativity more broadly, these factors have been considered as potential semantic determinants of unaccusativity and as potential explanations of variable unaccusative/unergative behavior (Perlmutter, 1978; Hoekstra, 1984; Rosen, 1984; Van Valin, 1990; Zanen, 1993; Levin & Rappaport Hovav, 1995; Centineo, 1996, i.a.). In order to determine what underlies the patterns discussed in this and the previous section, the following section examines approaches to variable unaccusative/unergative behavior that have been proposed for other languages and discusses the feasibility of applying such approaches to Russian.

3.4 Previous approaches to variable unaccusative/unergative behavior

Within the large body of literature dealing with unaccusativity, some researchers have moved away from classifying each verb as lexically unaccusative or lexically unergative, showing that some verbs display the hallmarks of unaccusativity in some instances and the hallmarks of unergativity in others (Perlmutter, 1978; Hoekstra, 1984; Rosen, 1984; Levin, 1986; Van Valin, 1990; Dowty, 1991; Zaenen, 1993; Borer, 1994; Levin & Rappaport Hovav, 1995; Centineo, 1996; Lieber & Baayen, 1997; Moro, 1997; Arad, 1998; Sorace, 2000; Van Hout, 2004; Maling & Calabrese, 2009). For these so-called “variable behavior verbs” (Levin & Rappaport Hovav, 1995), unaccusativity is said to be correlated with the lexical aspect of the verb – specifically, lexical telicity – as well as non-volitionality, non-agentivity, and/or inanimacy of the verb’s argument; conversely, unergativity is correlated with an atelic interpretation of the verb and with volitional, agentive, animate arguments. In this section, I examine the initial rationale for treating these factors as relevant to the unaccusative/unergative distinction and show how they could be applied to the problem of variable unaccusative/unergative behavior of Russian verbs as well. While each factor, by itself, is insufficient to completely predict variable unaccusative/unergative behavior in Russian, the factors are nevertheless still relevant to the problem. In Section 3.5 I present the major proposal of the chapter and show how factors such as aspect, volitionality, agentivity, and animacy play a role in variable unaccusative/unergative behavior.

3.4.1 Lexical specification of unaccusativity

Perlmutter’s (1978) formulation of the Unaccusativity Hypothesis was adopted into the Government and Binding framework (Chomsky, 1981) by Burzio (1986). In Burzio’s description of the unaccusative/unergative dichotomy, each intransitive verb is specified in the lexicon as unaccusative or unergative. The lexical specification ultimately determines the surface syntactic position of the verb’s argument. The view that the identity of the verb determines its unaccusative status has been

criticized on the grounds that some verbs show variable unaccusative/unergative behavior: as shown in Russian in the previous section, a single verb can pass language-specific diagnostics for both unaccusativity and unergativity.

In Italian as well, certain verbs display variable behavior according to Burzio's unaccusativity diagnostics. Italian verbs appear with an auxiliary in the perfect; a verb that appears with the auxiliary *avere* 'have' is taken to be unergative, and a verb that appears with the auxiliary *essere* 'be' is taken to be unaccusative (Perlmutter, 1978; Burzio, 1986). Rosen (1984), however, shows that some Italian verbs can appear with either *avere* 'have' or *essere* 'be', as in (311) and (312).

(311) *Mario ha/*è continuato.*

Mario have/be continued

'Mario continued.'

(Rosen, 1984)

(312) *Il dibattito è/*ha continuato.*

the debate be/have continued

'The debate continued.'

(Rosen, 1984)

What's more, *continuare* 'continue' may occur only with *avere* 'have' in (311), and only with *essere* 'be' in (312). Other variable behavior verbs in Italian include *correre* 'run', *saltare* 'jump', *volare* 'fly', and *vivere* 'live' (Burzio, 1981; Rosen, 1984; Van Valin, 1990; Centineo, 1996).

In order to accommodate the ability of certain verbs to display the hallmarks of unaccusativity as well as those of unergativity, one might say that certain intransitive verbs are special in that they are listed in the lexicon twice, once as unaccusative and once as unergative. Applying this idea to Russian, that would mean that there is a lexical entry for *plavat'*, which can be translated as 'swim', that indicates that it is unergative, taking an agent argument, and there is an entry for *plavat'*, which can be translated as 'float', that indicates that it is unaccusative, taking a theme argument; similarly, there would be two entries each for *rabotat'* 'work', *stojat'* 'stand', *šumet'* 'make noise', *rasti* 'grow', as well as each of the deadjectival verbs of becoming (e.g., *belet'* 'be/turn white'). Meanwhile, any verbs that are found to consistently display the hallmarks of unaccusativity have

only one lexical entry, and those that are found to consistently display the hallmarks of unergativity also have only one lexical entry.

While this two-entry approach *can* account for variable unaccusative/unergative behavior, it fails to capture any broader generalizations as to which verbs can display variable behavior and under what circumstances they may do so. Instead, it attributes variable behavior to an accident of the lexicon, suggesting that variable behavior is idiosyncratic.

In fact, generalizations can be made about the variable behavior of relatively large classes of verbs, not just in one language but across languages as well. Verbs denoting manner of motion in English, such as *swim*, *run*, and *dance*, which in their default uses behave as unergatives, behave as unaccusatives when they appear with a prepositional phrase that denotes the goal or direction of motion (Levin, 1986; Levin & Rappaport Hovav, 1995; Levin et al., 1997); this phenomenon is discussed in greater detail in Section 3.5.2. By listing each manner of motion verb twice in the English lexicon, we would have to introduce a fair amount of redundancy into the lexicon; we would also have no reason to suspect that the same kind of pattern appears with their counterparts in Dutch and Italian as well (Hoekstra, 1984; Rosen, 1984; Zaenen, 1993; Centineo, 1996). A better approach would be able to account for such generalizations and retain the power to predict new patterns based on what has been observed.

3.4.2 Aspectual properties of events

Many researchers have noted that verbs that differ from one another in their putative unaccusativity class also differ from one another in their aspectual properties (Hoekstra, 1984; Levin, 1986; Van Valin, 1990; Dowty, 1991; Zaenen, 1993; Borer, 1994, 2004; Lieber & Baayen, 1997; Moro, 1997; Arad, 1998; Sorace, 2000; Schoorlemmer, 2004; Van Hout, 2004; Maling & Calabrese, 2009); specifically, unaccusative verbs are said to denote telic events—events that are bounded in time—while unergative verbs denote atelic events. Furthermore, some research suggests that, when a given verb displays *variable* unaccusative/unergative behavior, its behavior corresponds to the aspectual properties of the clause (Van Valin, 1990; Moro, 1997; Maling & Calabrese, 2009). For Russian

in particular, while some work suggests a link between telicity and unaccusativity (Schoorlemmer, 2004), I argue here that variable unaccusative/unergative behavior in Russian does not correspond to the aspectual properties of the clause.

To illustrate the proposal that unaccusative verbs denote telic events, I turn to data from Dutch presented by Zaenen (1993). Zaenen argues that unaccusative verbs denote telic events such as accomplishments and achievements (in the sense of Vendler (1967)), which are bounded in time, and unergative verbs denote activities, which have no lexically entailed endpoint. She first demonstrates that unaccusative verbs and unergative verbs behave differently with respect to two syntactic phenomena, then she shows how the distinction relates to lexical telicity. First, Dutch intransitive verbs that select the auxiliary *zijn* ‘be’ are said to be unaccusative, as in (313), and those that select the auxiliary *hebben* ‘have’ are unergative, as in (314).

(313) *Hij is gestorven.*
 he is died
 ‘He has died.’ (Zaenen, 1993)

(314) *De meisjes hebben hard gewerkt.*
 the girls have hard worked
 ‘The girls have worked hard.’ (Zaenen, 1993)

Second, while any intransitive verb may form a perfect participle with the prefix *ge-*, only participles formed from unaccusative verbs may appear prenominal, as in (315). The participle corresponding to an unergative verb cannot appear prenominal, as in (316).

(315) *de helaas te jong gestorven geleerde*
 the unfortunately too young died scientist
 ‘the scientist [who] unfortunately died too young’ (Hoekstra, 1999)

(316) **de gewerkte man*
 the worked man
 (Zaenen, 1993)

Zaenen (1993) then argues that these contrasts between unaccusative and unergative verbs are related to telicity.

According to Zaenen (1993), the unaccusative/unergative distinction in Dutch corresponds to the distinction between telic and atelic events. Atelic events, having no lexically entailed endpoint, are generally compatible with clausal material that expresses the duration of the activity. Unergative verbs, as in (317) and (318), are compatible with such material, indicating that such verbs denote atelic events.

(317) *Hij heeft urenlang getelefoneerd.*
 he has for.hours phoned
 ‘He has been on the phone for hours.’ (Zaenen, 1993)

(318) *Hij heeft urenlang gebloed.*
 he has for.hours bled
 ‘He has bled for hours.’ (Zaenen, 1993)

By contrast, when material that expresses the duration of the activity is added to sentences with putative unaccusative verbs, as in (319) and (320), the result is less felicitous. This suggests that the events are telic.

(319) ? *Hij is urenlang aangekomen.*
 he is for.hours arrived
 ‘He arrived for hours.’ (Zaenen, 1993)

(320) ? *Hij is urenlang gestorven.*
 he is for.hours died
 ‘He died for hours.’ (Zaenen, 1993)

On this basis, Zaenen considers telicity to be a semantic factor that underlies the unaccusative/unergative distinction.

In Italian, as well, research suggests that aspect plays a role in variable unaccusative/unergative behavior (Van Valin, 1990; Moro, 1997; Maling & Calabrese, 2009)—although here, it is the

aspectual properties of the clause that are said to be relevant, rather than the lexical aspect of the verb. *Avere* ‘have’, the auxiliary associated with unergative verbs, is generally used with intransitive activity verbs; thus, its use is compatible with a phrase denoting the duration of the activity denoted by the verb, as in (321). *Essere* ‘be’, the auxiliary associated with unaccusative verbs, is generally used with telic intransitive verbs that denote a change of state or location; thus, its use is compatible with a phrase indicating the endpoint of the event, as in (322).

- (321) *Angela ha parlato/pianto/ballato/camminato per/*in un’ ora.*
 Angela has talked/cried/danced/walked for/in an hour
 ‘Angela talked/cried/danced/walked for/*in an hour.’ (Van Valin, 1990)
- (322) *Angela è arrivata/annegata/morta in/*per un’ ora.*
 Angela is arrived/drowned/died in/for an hour
 ‘Angela arrived/drowned/died in/*for an hour.’ (Van Valin, 1990)

Variable behavior verbs such as *correre* ‘run’, *saltare* ‘jump’, and *volare* ‘fly’ can appear with either the auxiliary *avere* ‘have’ or *essere* ‘be’ depending on the aspectual interpretation of the clause. For example, the verb *correre* ‘run’ appears with *avere* ‘have’ and a prepositional phrase denoting duration in (323) consistent with an atelic interpretation of the clause, and it appears with *essere* ‘be’ and a prepositional phrase denoting the endpoint of the event in (324), consistent with a telic interpretation of the clause.⁸

- (323) *Luisa ha corso nel parco per un’ ora/*in un’ ora.*
 Luisa has run in.the park for an hour/in an hour
 ‘Luisa ran in the park for an hour/*in an hour.’ (Maling & Calabrese, 2009)

⁸ While Maling & Calabrese (2009) show how the auxiliary used with a verb corresponds to the verb’s aspectual class, for them, lexical telicity is not the relevant factor. Instead, they argue that *avere* ‘have’ is used with activities, which are atelic, and accomplishments, which are telic. *Essere* ‘be’ is used with states and achievements. For example, *correre* ‘run’ is generally assumed to denote an activity in (323), and Maling & Calabrese argue that it denotes an achievement in (324). Accomplishments, like certain intransitive uses of *mangiare* ‘eat’ and *vincere* ‘win’, use *avere* ‘have’.

(324) *Luisa è corsa a casa in un' ora/*per un' ora.*

Luisa is run to home in an hour/for an hour

'Luisa ran home in an hour/*for an hour.'

(Maling & Calabrese, 2009)

Looking next at Russian, Schoorlemmer (2004) argues that the aspectual properties of some verbs can determine their classification as unergative or unaccusative. She argues that perfective verbs whose imperfective counterparts bear the imperfectivizing suffix *-iva/yva* are telic, and, due to her understanding of telicity, they must take a direct object (whether a surface direct object or an underlying direct object). This in turn means that perfective intransitive verbs whose imperfective counterparts appear with *-iva/yva* are unaccusatives.

In order to understand Schoorlemmer's argument, it is necessary to look at the morphological derivation of perfective and "secondary imperfective" verbs. Most Russian verb stems are imperfective; perfective forms can be morphologically derived from them. For example, the verb *pisat'* 'write' is imperfective, and its counterpart, *napisat'* 'write', is perfective. The verbs describe the same basic event and semantically differ only in their grammatical aspect. However, other perfective forms can be morphologically derived from the imperfective forms but have meanings that are distinct from them. For example, *pisat'* 'write' is also derivationally related to the perfective forms *perepisat'* 'copy' and *vypisat'* 'subscribe to'; these verbs differ in meaning from the imperfective form from which they are derived.

Perfective verbs like *perepisat'* 'copy' and *vypisat'* 'subscribe to' often have imperfective counterparts formed using the suffix *-iva/yva*—these "secondary imperfectives" retain the meaning of their perfective counterparts. Examples are shown in (325)–(327).

(325) a. *pisa-t'* 'write' (imperfective)

b. *na-pisa-t'* 'write' (perfective)

(326) a. *pere-pisa-t'* 'copy' (perfective)

b. *pere-pis-yva-t'* 'copy' (secondary imperfective)

- (327) a. *vy-pisa-t'* 'subscribe to' (perfective)
 b. *vy-pis-yva-t'* 'subscribe to' (secondary imperfective)

Schoorlemmer argues that any perfective verb that has a secondary imperfective counterpart—that is, any verb like (326a) and (327a)—must have a direct object (whether it is a surface direct object or an underlying direct object);⁹ this would mean that any perfective intransitive verb whose imperfective counterpart bears the secondary imperfective suffix is unaccusative.¹⁰

Schoorlemmer's hypothesis appears to be borne out for some verbs; for example, *zaboleť* 'fall ill', with the imperfective form *zabolevat'*, and *otmorozit'* 'to get frostbite', with the imperfective form *otmoražyvat'*, are likely unaccusatives. However, a number of other perfective verbs that have secondary imperfective counterparts are likely unergatives. This includes *zakusit'* 'have a snack' (imperfective: *zakusyvat'*), *poprygat'* 'jump' (imperfective form: *poprigyvat'*), *posmejat'sja* 'chuckle' (imperfective form: *posmeivat'sja*), and *podrabotat'* 'make some money on the side' (imperfective form: *podrabatyvat'*).

More recent work, too, suggests that a verb's aspectual properties and its status as unaccusative or unergative do not always correlate in Russian. Glushan (2013) shows that the imperfective verb *padat'* 'fall' (traditionally classified as unaccusative) can pattern either as an unergative or as an unaccusative with respect to the ability to appear with a distributive *po* phrase; whether the verb is allowed with the *po* phrase depends not on the aspect of the verb but on the information structure of the sentence. Roughly, sentence (328) represents a "declarative" or "predicative" sentence (in the

⁹ Schoorlemmer's reasoning is as follows. Perfective verbs like *perepisat'* 'copy' and *vypisat'* 'subscribe to' are telic, but she argues that they are not specified in the lexicon as telic; instead, they derive their telicity compositionally. According to the definition of telicity that Schoorlemmer adopts (Verkuyl, 1972, 1993; Krifka, 1989), any verb that derives its telicity compositionally must have a direct object. However, Schoorlemmer's evidence that these verbs derive their telicity compositionally is limited. She contrasts such verbs with semelfactive verbs like *blink* and *cough*, which express one instance of a potentially repetitive action, because she takes the semelfactives to be lexically telic. However, semelfactive verbs are arguably actually atelic (Comrie, 1976; Smith, 1991); if this is the case, then Schoorlemmer's comparison is moot, and there is then no reason to conclude that all verbs with secondary imperfective counterparts must take direct objects.

¹⁰ Schoorlemmer does not claim the converse—that all unaccusative verbs have secondary imperfective forms. Russian verbs of existence and appearance, for example, do not have secondary imperfective forms, despite generally being classified as unaccusatives.

sense of Babby (1980, 2001) and Partee & Borschev (2002, 2004), respectively) while (329) represents an existential sentence. The two sentence types correspond to different syntactic structures; this difference in turn leads to the variable unaccusative/unergative behavior.

(328) ?? *Po montažniku šumno padalo s každoj kryši.*

PO installer.DAT loudly fell.IPFV.NSG from each roof

intended: ‘An installer was loudly falling off each roof.’

(Glushan, 2013, 98)

(329) While walking on the scene, we made several pictures. In one of the pictures, we can see that:

... *po montažniku padalo s každoj kryši.*

PO installer.DAT fell.IPFV.NSG from each roof

‘... an installer was falling from each roof.’

(Glushan, 2013, 99)

The difference in acceptability between the two sentences cannot be due to a difference in the telicity of the verb, as both instances are atelic. (See also Section 3.5.3 for a discussion of unaccusativity in the context of existential events.)

Variable unaccusative/unergative behavior can also be found when the verb is telic. The quantificational verbal prefix *na-*, which is said to quantify over the verb’s (surface or underlying) direct object (Babyonyshev, 1996; Harves, 2003), also serves to perfectivize the verb. The perfective form of *padat’* ‘fall’ formed with this prefix, *napadat’*, can sometimes occur with a quantified argument, as in (331), and sometimes cannot, as in (330).

(330) * *Mnogo montažnikov napadalo iz okon.*

many installers fell.PRF.NSG from windows

intended: ‘Many installers have fallen from windows.’

(Glushan, 2013, 95)

- (331) Computer game context: There are always piles of dead snipers after the shooting at this level. These snipers fall out of windows.

Mnogo snajperov napadalo iz okon.

many snipers fell.PRF.NSG from windows

‘Many snipers have fallen out of windows.’

(Glushan, 2013, 96)

Glushan attributes the difference in acceptability between (330) and (331) to the difference in the experiencerhood of the verb’s argument. In (330), the installers are mentally aware of the event that is taking place, while in (331), the snipers are not (whether this is because they are computer game characters or because they are dead when they fall). Regardless of whether this is the right explanation of the difference, the examples show that the variable unaccusative/unergative behavior does not directly correspond to the telicity/atelicity of the verb.

Despite the observed correlation between telicity and unaccusativity in many languages, this discussion shows that variable unaccusative/unergative behavior in Russian cannot be completely reduced to the aspectual properties of events denoted by the verb.

3.4.3 Animacy

Some research on unaccusativity suggests that the animacy of a verb’s arguments contributes to variable unaccusative/unergative syntactic behavior. In some instances it seems that the putative unaccusativity diagnostics do not diagnose unaccusativity *per se*, and are actually only sensitive to the animacy of the arguments or other factors (Gafter, 2014). In other instances it seems that the putative unaccusativity diagnostics are sensitive to both the animacy of the verb’s argument as well as the unaccusativity of the verb (Ahmed, 2010).

For example, Gafter (2014) discusses the possessive dative construction in Hebrew, argued to be a diagnostic of unaccusativity by Borer & Grodzinsky (1986). According to Gafter, the diagnostic is not sensitive to the unaccusativity class of the verb, but instead it is sensitive to the prominence of the possessed argument on scales of animacy and definiteness. In the possessive dative construction,

a noun phrase marked with the dative clitic *le* is interpreted as the possessor of another noun phrase in the clause, as in (332).

- (332) *[ha- iparon]_{possessee} nafal [le- dan]_{possessor}*
 the pencil fell to Dan
 ‘Dan’s pencil fell.’ (Gafta, 2014)

Borer & Grodzinsky (1986) note that, in transitive sentences, the direct object or an adjunct, but not the subject, can serve as the possessee in the possessive dative construction. With intransitive verbs, the subject of an unaccusative verb, but not the subject of an unergative verb, can serve as the possessee, as in (333) and (334).

- (333) *[ha- maftexot]_{possessee} naflu [li]_{possessor}*
 the keys fell to.me
 ‘My keys fell.’ (Borer & Grodzinsky, 1986)

- (334) * *[ha- poalim]_{possessee} avdu [li]_{possessor}*
 the workers worked to.me
 intended: ‘My workers worked.’ (Borer & Grodzinsky, 1986)

Borer & Grodzinsky therefore propose that the possessive dative construction is a diagnostic of unaccusativity in Hebrew.

Gafta, however, notes that animacy is a potential confounding factor in examples like (333) and (334), since the unaccusative verb has an inanimate possessee and the unergative verb has an animate possessee. This raises the possibility that the animacy of the possessee, not the unaccusativity class of the verb, is the determining factor in whether a given sentence using the possessive dative construction is acceptable. Gafta shows that arguments of unaccusative verbs can occur as possessee only when they are inanimate, as in (335) and (336).

- (335) *ha arnak nafal le- dan ve- hu lo moce oto*
 the wallet fell to Dan and he no find it
 ‘Dan’s wallet fell and he couldn’t find it.’ (Gafta, 2014)

- (336) * *ha- ganan nafal le- dan ve- šavar et ha regel*
 the gardener fell to Dan and broke ACC the leg
 intended: ‘Dan’s gardener fell and broke his leg.’ (Gafter, 2014)

Additionally, verbs of sound and light emission, which are argued to be unergative in English (Levin & Rappaport Hovav, 1995), can appear in the possessive dative construction in Hebrew when the possessee is inanimate, as in (337).

- (337) *kol ha- zman mehavhev li ha- masax*
 all the time flicker to.me the screen
 ‘My screen keeps flickering.’ (Gafter, 2014)

These examples suggest that the possessive dative construction is sensitive to the animacy of the possessee rather than the unaccusativity class of the verb. Gafter (2014) goes on to argue for a more refined description: the possessor must be more prominent than the possessee on scales of animacy and definiteness. It therefore seems to be the case that the feature relevant to the acceptability of the possessive dative construction is not animacy *per se*, but rather relative animacy and definiteness.

Ahmed (2010) offers further examples of putative unaccusativity diagnostics that are actually sensitive to animacy. He uses such diagnostics to argue that Urdu has no discrete classes of unaccusative and unergative verbs. One of the diagnostics he uses, following Bhatt (2003), relies on the inabilitative construction; putative unergative verbs appear in the inabilitative construction with passive syntax—using the light verb *jaa* ‘go’ along with a perfective form of the main verb—whereas putative unaccusative verbs can appear in the inabilitative construction only with active syntax. Sentences (338) and (339) illustrate the pattern using the putative unergative verb *daur* ‘run’ and the putative unaccusative verb *kaṭ* ‘be cut’, in the inabilitative construction using passive syntax.

- (338) *niinaa=se daur-aa nahī ga-yaa*
 Nina.FSG=INST run-PRF.MSG not go-PRF.MSG
 ‘Nina was not able to run.’ (Ahmed, 2010)

- (339) * *phal=se kaṭ-aa nahī̄ jaa-taa*
 fruit.MSG=INST cut-PRF.MSG not go-IPFV.MSG
 intended: ‘That fruit was not able to be cut.’ (Ahmed, 2010)

While this diagnostic is often used to distinguish unaccusative and unergative verbs, Ahmed shows that the diagnostic is not sensitive to the identity of the verb, but instead to the animacy of the verb’s argument. When the argument of the putative unergative verb *ur* ‘fly’ is animate, the verb may appear in the inabilitative construction with passive syntax, as in (340). However, when the argument is inanimate, it may not, as in (341).

- (340) *ciṛyaa=se ur-aa nahī̄ ga-yaa*
 bird.FSG=INST fly-PRF.MSG not go-PRF.MSG
 ‘The bird was not able to fly.’ (Ahmed, 2010)

- (341) * *patang=se ur-aa nahī̄ ga-yaa*
 kite.FSG=INST fly-PRF.MSG not go-PRF.MSG
 intended: ‘The kite was not able to fly.’ (Ahmed, 2010)

The putative unaccusative verb *utar* ‘descend’ shows the same contrast: it can appear in the inabilitative construction with passive syntax when its argument is animate, as in (342), but not when its argument is inanimate, as in (343).

- (342) *larḱii=se paani=mē utr-aa nahī̄ ga-yaa*
 girl.FSG=INST water.MSG=in descend-PRF.MSG not go-PRF.MSG
 ‘The girl could not descend in the water.’ (Ahmed, 2010)

- (343) * *kaṣṭii=se paani=mē utr-aa nahī̄ ga-yaa*
 boat.FSG=INST water.MSG=in descend-PRF.MSG not go-PRF.MSG
 intended: ‘The boat could not descend in the water.’ (Ahmed, 2010)

The inabilitative construction therefore appears to distinguish between intransitive verbs with animate and inanimate arguments, and not necessarily between the two distinct unaccusativity classes.

A second unaccusativity diagnostic in Urdu involves reduced relative clauses. Such clauses are said to only be formed with unaccusative verbs and not unergative verbs. This diagnostic, too, is sensitive to the animacy of the argument. The putative unergative verb *ur* ‘fly’ can appear in a reduced relative clause when its argument is inanimate, as in (344), but not when its argument is animate, as in (345).

(344) *ur-ii* (huu-ii) *patang*
 fly-PRF.FSG be-PRF.FSG kite.FSG
 ‘the flown kite’ (Ahmed, 2010)

(345) * *ur-ii* (huu-ii) *ciṛyaa*
 fly-PRF.FSG be-PRF.FSG bird.FSG
 intended: ‘the flown bird’ (Ahmed, 2010)

Interestingly, this diagnostic is not sensitive *only* to the animacy of the verb’s argument. The putative unaccusative verb *utar* ‘descend’ can appear in a reduced relative clause regardless of the animacy of its argument, as in (346).

(346) *paanii-mē* *utr-ii* (huu-ii) *laṛkii/kaṣṭii*
 water.MSG=in descend-PRF.FSG be-PRF.FSG girl.FSG/boat.FSG
 ‘the girl/boat (that was) descended in water’ (Ahmed, 2010)

Based on these examples, it seems that reduced relative clause formation is possible for unaccusative verbs regardless of the animacy of the argument, and for unergative verbs with inanimate arguments. This suggests that the diagnostic is sensitive to unaccusativity as well as to the animacy of the argument.

As discussed above in Section 3.2, some researchers have proposed that in Russian the animacy of an intransitive verb’s argument is relevant to its status as unaccusative or unergative or to its behavior with respect to unaccusativity diagnostics (Crockett, 1976; Corbett, 1983; Harves, 2003; Glushan, 2013). As shown in that section, however, the variable unaccusative/unergative behavior observed in Russian cannot be reduced to animacy alone.

Looking first at FCA, it is clear that coordinated animate arguments can in some instances trigger FCA, as in (283), repeated below as (347), (284), repeated below as (348), and (349).

(347) *U nego byla mjagkaja mat' i grubij avtoritarnyj otec.*
 at him was.FSG gentle mother.FSG.NOM and harsh authoritarian father.MSG.NOM
 'He had a gentle mother and a harsh authoritarian father.' (Crockett, 1976, 217)

(348) *Kogda-to... na xutore žila devočka let odinnadcati-devenadcati i eë
 once in hamlet lived.FSG girl.FSG.NOM years eleven-tweleve and her
 brat...
 brother.MSG.NOM
 'Once... in a small village there lived a girl of eleven or twelve and her brother...'
 (Crockett, 1976, 217)*

(349) *Vmeste so mnoj na kosmodrom letel German Titov,
 together with me to launching.site flew.MSG German.MSG.NOM Titov.MSG.NOM
 eščë neskol'ko kosmonavtov, grupa naučnyx
 another several.NOM cosmonauts.MPL.GEN group.FSG.NOM scientific.MPL.GEN
 rabotnikov i vrač.
 workers.MPL.GEN and doctor.MSG.NOM
 'With me to the launching site flew German Titov, several other cosmonauts, a group of
 scientists, and a doctor.' (Crockett, 1976, 217)*

Conversely, not every sentence with inanimate participants can trigger FCA, as in (351), which is judged as degraded.¹¹

¹¹ Contrast (351) with (282), repeated below as (350). Whereas *veter* 'wind' and *dožd'* 'rain' in (350) are inanimate participants and are compatible with FCA, *samolët* 'airplane' and *vertolët* 'helicopter' in (351) are inanimate participants that are not. The difference in acceptability may arise because airplanes and helicopters have a greater degree of control over the event of flying than wind and rain have over the event of making noise. According to the analysis I present in Section 3.5.3.3, the difference in the degree of control can affect the way that the happening is construed as an event.

- (351) ?? *Po nebu letal samolët i vertolët.*
 around sky flew.MSG airplane.MSG.NOM and helicopter.MSG.NOM
 intended: ‘In the sky an airplane and a helicopter were flying.’

It is worth noting that, while the participants in the event denoted by the verb in (351) are inanimate, they are machines that have an inner power source and could potentially be considered teleologically capable of carrying out the event of flying, making them more similar to animate agentive arguments (see Folli & Harley, 2008).¹²

The same effect is found with the genitive of negation construction: some animate arguments appear with the genitive case under negation, as in (352) and (353), while some inanimate arguments do not, as in (354).

- (352) *Ni odnogo stroitelja ne upalo s kryši.*
 not one construction.worker.MSG.GEN NEG fell.NSG from roof
 ‘Not a single construction worker fell from the roof.’

- (353) Context: *Na zabrošenom zavode upal i razbilsja Saša.*
 ‘Sasha fell and was badly hurt at the abandoned factory.’

Tam boljše ne igraet nikakix detej.
 there anymore NEG play.3SG no children.MPL.GEN

‘There are no longer any children playing there.’ (Babby, 2001, 50–51)

- (350) *Šumel veter i dožd’.*
 made.noise.MSG wind.MSG.NOM and rain.MSG.NOM
 ‘The wind and rain were whooshing.’ (Crockett, 1976, 219)

¹² An alternative perspective on animacy as a constraint on grammaticality comes from Folli & Harley (2008), who examine several grammatical phenomena that at first seem to be sensitive to animacy. They argue that such phenomena are not sensitive to animacy *per se*, but that the underlying cause of the apparent animacy effect is related to the “teleological capability”, or the inherent ability of an entity initiate events and control the unfolding of the event from start to finish. For example, a train that is built with a whistle inside it is teleologically capable of whistling. They argue that, for the phenomena they consider, animacy is not a grammatical primitive. Instead, speakers use world knowledge about what kinds of entities have the ability to initiate and exert control over events.

- (354) ?? *Ni odnogo proigryvatelja ne rabotalo v magazine.*
 not one record.player.MSG.GEN NEG worked.NSG in store
 ‘Not one record player was working in the store.’

While the examples in Section 3.2 as well as corpus work by Corbett (1983) indicates that animacy plays a role in whether a verb shows the hallmarks of unaccusativity or those of unergativity in a given sentence, the facts presented here are inconsistent with an approach that attributes variable unaccusative/unergative behavior in Russian entirely to the animacy of the event participants.

3.4.4 Volitionality

The problem of variable unaccusative/unergative syntactic behavior is noted in Perlmutter’s original (1978) treatment of unaccusativity; for him, it is not the verb itself that is classified as unergative or unaccusative, but rather the entire clause that is classified as such. For example, although the sentences in (355)–(357) use the same verb, they represent different clause types.

- (355) The wheels slid on the ice. (Perlmutter, 1978)
 (356) Joe slid into third base. (Perlmutter, 1978)
 (357) Joe slid on the ice. (Perlmutter, 1978)

Perlmutter hypothesizes that clauses denoting willed or volitional acts, like sliding into third base, constitute unergative clauses, while others are unaccusative clauses. Sentence (355) is an unaccusative clause, (356) is an unergative clause, and (357) can be analyzed as either of the two clause types depending on its interpretation as either a volitional or a non-volitional act.

Under Perlmutter’s hypothesis, clauses denoting willed or volitional acts should fail unaccusativity diagnostics and clauses that do not denote such acts should pass them, regardless of the identity of the verb. He provides evidence from Dutch impersonal passive constructions that is consistent with this proposal. In the impersonal passive construction, an argument that appears in a

by-phrase, as shown in brackets in (358), is said to correspond to the “initial” subject (in Relational Grammar terms; the underlying subject in GB terms) of an unergative clause.

- (358) *Er wordt hier [door de jonge lui] veel gedanst.*
 it is here by the young people a.lot danced
 ‘It is danced here a lot by the young people.’ (Perlmutter, 1978)

Unergative clauses, he argues, have acceptable impersonal passive counterparts. However, unaccusative clauses, such as (359), do not; their impersonal passive counterparts are unacceptable, as in (360).

- (359) *De grassprietjes zijn vannacht ontsproten.*
 the grass.sprouts were last.night sprouted
 ‘The grass sprouts sprouted last night.’ (Perlmutter, 1978)

- (360) * *Er werd [door de grasspietsjes] vannacht ontsproten.*
 it was by the grass.sprouts last.night sprouted
 (Perlmutter, 1978)

Unaccusative clauses are said to have no impersonal passive counterparts because they have no “initial” subject that can be demoted into the *by*-phrase.

Using the impersonal passive construction as a diagnostic, Perlmutter shows that a single verb can display variable unaccusative/unergative behavior depending on the volitionality of the event participant. When a clause has a volitional participant, and thus is a putative unergative clause, as in (361), the corresponding impersonal passive is acceptable, as in (362).

- (361) *De kinderen hebben lekker op het ijs gegleden.*
 the children have fun on the ice sliding
 ‘The children enjoyed sliding on the ice.’ (Perlmutter, 1978)

- (362) *Er werd [door de kinderen] lekker op het ijs gegleden.*
 it was by the children fun on the ice sliding
 ‘It was enjoyed sliding on the ice by the children.’ (Perlmutter, 1978)

This behavior contrasts with clauses using the same verb when the participant is non-volitional, and thus the clause is putatively unaccusative, as in (363); the corresponding impersonal passive is unacceptable, as in (364).

(363) *De sneeuw is van het dak afgegleden.*
 the snow is from the roof slid.off
 ‘The snow slid off the roof.’ (Perlmutter, 1978)

(364) **Er werd [door de sneeuw] van het dak afgeleden.*
 it was by the snow from the roof slid.off
 (Perlmutter, 1978)

Because a verb may appear in the impersonal passive construction only when the participant is volitional and because it is blocked from appearing in the impersonal passive construction when the participant is non-volitional, one could conclude that unaccusativity does not depend on the identity of the verb but instead on semantic properties of the clause, such as the volitionality of the event participant and the controllability of the event.

Zaenen (1993), however, contests the relevance of volitionality to the unaccusative status of the verb. While she agrees that the impersonal passive construction is sensitive to the volitionality of the participant, crucially for her, neither the volitionality of the participant nor the ability to appear in the impersonal passive construction is relevant to the unaccusativity of the verb. Instead, she uses auxiliary choice as the relevant diagnostic of unaccusativity and shows that the volitionality of the participant does not determine the choice of auxiliary. Intransitive verbs that denote events over which the participants have control can appear with either auxiliary, as in (365), which uses a putative unergative verb, and (366), which uses a putative unaccusative verb.

(365) *Hij heeft opzettlijk getelefoneerd.*
 he has on.purpose phoned
 ‘He has phoned on purpose.’ (Zaenen, 1993)

(366) *Hij is opzettelijk te laat aangekomen.*

he is on.purpose too late arrived

'He arrived too late on purpose.'

(Zaenen, 1993)

Similarly, verbs that denote events over which the participants cannot have control can also appear with either auxiliary, as in (367), which uses a putative unergative verb, and (368), which uses a putative unaccusative verb.

(367) ? *Hij heeft opzettelijk gestonken.*

he has on.purpose stank

'He stank on purpose.'

(Zaenen, 1993)

(368) ? *Hij is opzettelijk gestorven.*

he is on.purpose died

'He died on purpose.'

(Zaenen, 1993)

Zaenen takes these examples to indicate that volitionality of the participant does not determine unaccusativity/unergativity.

Setting aside the Dutch data, the volitionality of event participants has also been argued to be relevant to the unaccusative/unergative distinction in English (Perlmutter & Postal, 1984; Hoekstra & Mulder, 1990). Perlmutter & Postal (1984) use the pseudo-passive (or prepositional passive) construction as a diagnostic of unergativity, showing that it is acceptable only when the participant denoted by the verb's sole argument acts agentively. For example, the argument of the verb *slide* can be an agent or not; examples are shown in (369) and (370); cf. (355)–(357).

(369) Ted slid into the closet.

(Perlmutter & Postal, 1984)

(370) The soap slid into the closet.

(Perlmutter & Postal, 1984)

Sentence (369) allows either an agentive or a non-agentive interpretation: Ted could be acting volitionally, or he could be sliding accidentally. In (370), the soap cannot be interpreted as acting volitionally because it is inanimate.

Perlmutter & Postal (1984) argue that only the volitional uses of *slide* have counterparts in the pseudo-passive, and that therefore only the volitional uses of *slide* are unergative. For example, the pseudo-passive counterpart of (369) is acceptable, as in (371); by contrast, the pseudo-passive counterpart of (370) is unacceptable, as in (372).

(371) The closet was slid into by Ted. (Perlmutter & Postal, 1984)

(372) * The closet was slid into by the soap. (Perlmutter & Postal, 1984)

This contrast is meant to indicate that only volitional uses of a verb are unergative. As further evidence of their claim, Perlmutter & Postal point out a related contrast: sentence (369) would be acceptable if Ted were dead or unconscious (that is, not acting agentively), but in (371), Ted must be acting agentively—he cannot be dead or unconscious. This indicates that agentivity, or a similar notion such as volitionality, is the determining factor in whether a given clause displays purported unaccusative or unergative syntactic behavior.

Variable unaccusative/unergative syntactic behavior in Russian, as well, could be analyzed as dependent on the volitionality of the participants in some instances. For example, the verb *stojat'* ‘stand’ varies with respect to its acceptability with FCA; in (373), the participants are volitional and FCA is disallowed, while in (374) the participants in the event denoted by this verb are non-volitional and FCA is allowed. Alternatively, based on examples like (373) and (374), the variable behavior displayed by *stojat'* ‘stand’ could be attributed to the animacy of the participants.

(373) * *Na lestničnoj ploščadke stojal sosed i ego brat.*
 on stairway landing stood.MSG neighbor.MSG.NOM and his brother.MSG.NOM
 intended: ‘My neighbor and his brother were standing on the stairway landing.’

(374) *Na stole stojal stakan i kuvšin.*
 on table stood.MSG glass.MSG.NOM and jug.MSG.NOM
 ‘On the table stood a glass and a jug.’

Further examples using other verbs, however, show that neither volitionality nor animacy can be the

only factor determining such behavior. First, there are some examples of animate, volitional actors that can trigger FCA. In (375) and (376), the animate participants can be interpreted as volitional actors, but FCA is allowed.¹³

- (375) *K beregu bežal Kolja i Vanja.*
 towards shore ran.MSG Kolya.MSG.NOM and Vanya.MSG.NOM
 ‘Kolya and Vanya were running towards the shore.’ (Crockett, 1976, 213)
- (376) *V komnatu vošla molodaja ženščina i malen'kij mal'čik.*
 into room entered.FSG young woman.FSG.NOM and little boy.MSG.NOM
 ‘A young woman and a little boy entered the room.’ (Crockett, 1976, 213)

Additionally, there are examples in which non-volitional participants can fail to trigger FCA, as in (351), repeated below as (377).¹⁴

- (377) ?? *Po nebu letal samolët i vertolët.*
 around sky flew.MSG airplane.MSG.NOM and helicopter.MSG.NOM
 ‘In the sky an airplane and a helicopter were flying.’

These sentences constitute evidence that the volitionality of the participants cannot be the *only* factor that determines whether FCA is possible.

In this section, I have reviewed some previously-proposed approaches to variable unaccusative/unergative behavior that pin the difference between unaccusative behavior and unergative behavior on individual semantic factors. While each of these semantic factors may indeed *play a role* in variable unaccusative/unergative behavior, none of the semantic factors *by itself* is sufficient to fully account for variable behavior (at least in Russian). In my view, variable behavior is the natural

¹³ Notably, both examples involve directed motion events. See Section 3.5.2 for a discussion of motion events and how directed motion events may come to be associated with unaccusative syntactic behavior.

¹⁴ While airplanes and helicopters are not volitional, they are teleologically capable of flying—as they have their own internal energy source, they can be considered to be in control of the event of flying from start to finish (Folli & Harley, 2008); see also footnote 12. One therefore might suspect that these arguments are treated as agents, and that FCA is ruled out on this basis. See Section 3.5.1 for my proposal concerning how events come to be associated with either an unaccusative or an unergative syntactic structure.

result of the relationships among happenings in the real world, verb meaning, and syntactic representation. In the following section, I outline my assumptions about these relationships, showing why variable behavior is possible and how semantic factors such as animacy and agentivity can influence whether a verb will behave as an unaccusative or as an unergative in a given sentential context.

3.5 Accounting for variable unaccusative/unergative behavior

This section presents my proposal concerning the origin of variable unaccusative/unergative syntactic behavior. I argue that the variable behavior pattern arises because a single verb root can be associated with more than one syntactic structure (Hale & Keyser, 2002; Borer, 2005; Ramchand, 2008; Mateu, 2012), allowing a single verb to show the hallmarks of unaccusativity in some instances and the hallmarks of unergativity in others. Further, I propose that FCA and the genitive of negation construction are acceptable when the happening in the world they present is linguistically construed as an existential event—which I interpret broadly, to subsume both pure existence events as well as events of appearance on the scene. I show how verb roots that are often used in the description of non-existential happenings are also used in the description of existential happenings; further, I show how the association between the verb root and the existential event schema gives rise to unaccusative syntactic behavior.

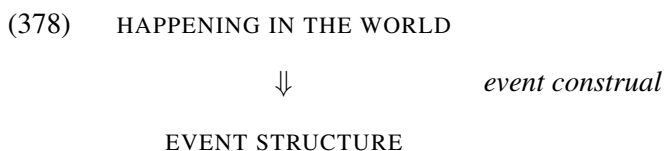
3.5.1 The proposal

In this section, I lay out my assumptions about verb meaning, event structure, and argument realization. Building on the general approach of Rappaport Hovav & Levin (1998) and Levin (2017), and expanding on the approach to variable unaccusative/unergative behavior presented in Levin & Krejci (2019), I present a model of the relationships among happenings in the real world, verb meaning, and syntactic representation that can satisfactorily account for the existence of variable unaccusative/unergative syntactic behavior. The goal of the model is to explain how happenings in

the world (that is, chains of events that take place in the real world) are represented in language. Using this model, I show how a single verb can come to be associated with either unaccusative or unergative syntactic behavior, depending on the context in which it is used.

To illustrate the model, imagine a happening in which, during a thunderstorm, a stone is carried by the wind and makes contact with a window, which then shatters. Depending on a speaker's communicative goal, they may describe this happening in a number of ways, highlighting different components of the happening—e.g., *the stone flew into the window*, *the stone hit the window*, *the stone broke the window*, *the window shattered*, etc. While all of these descriptions are faithful linguistic descriptions of the happening (that is, they are true utterances that describe the happening), they differ from one another in a number of ways. For example, they differ as to which participants are mentioned: the stone and/or the window. More importantly for my purposes here, they differ as to what type of event the happening is presented as: *the stone flew into the window* describes a directed motion event, and *the window shattered* describes a change of state event.

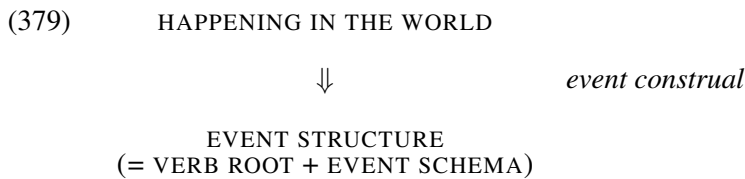
Each of these types of events can be given a distinct linguistic representation, or *event structure*. An event structure is a linguistic representation that captures an event's type and concomitantly its participants. When a happening in the world is *construed* – or described – as an event of a certain type, the construal determines the event structure that the happening is associated with (Levin & Rappaport Hovav, 2005). This is represented in (378).



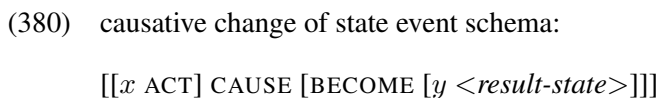
“Event construal” could also be called “event description”. Each happening in the world has a number of properties associated with it, and different event structures can encode different subsets of those properties. If the properties that a given event structure encodes are compatible with the happening, then the event structure can be associated with the happening. Adopting an event construal means that there is an association between a happening in the world and an event structure. The

compatibility between the happening and the event structure determines whether the event construal (or event description) is appropriate.

The event structure itself is a linguistic representation of the happening under a particular construal. Following much work on the structure of verb meaning (Pinker, 1989; Pesetsky, 1995; Rappaport Hovav & Levin, 1998; Borer, 2003, 2005; Lieber, 2004), I assume that event structures are bipartite, each consisting of a verb root and an associated event schema. The representation in (378) can therefore be expanded as in (379).



The verb root contains the “core meaning” of the verb—the (idiosyncratic) components of meaning that are lexicalized across all uses of the verb. The second component of the event structure, the event schema, is drawn from a small number of possibly universal types of events (e.g., directed motion events, manner of motion events, change of state events, etc.). Event structures can be represented via predicate decompositions, using primitive predicates such as ACT, CAUSE, BECOME, etc. (see Levin & Rappaport Hovav, 2011; Harley, 2012). For example, a causative change of state event schema could be represented as in (380).



Let us suppose that the window-breaking happening is construed as a causative change of state event; this is possible because one participant in the event, the window, can be understood as undergoing a change of state from intact to broken, brought about by the stone. Let us also suppose that the happening is described using the verb root \sqrt{break} . This is possible because the verb root \sqrt{break} is compatible with, and therefore can be associated with, a causative change of state event schema; the verb root lexicalizes the result state of the change. Other verb roots, such as \sqrt{dry} or

\sqrt{cool} , may also be associated with a causative change of state event schema, but they are inappropriate here because they do not describe the window-breaking happening. The event structure can therefore be represented as in (381).¹⁵

(381) causative change of state event structure:

[[*x* ACT] CAUSE [BECOME [*y* < \sqrt{broken} >]]]

The participants in the event are represented within the event structure as variables; these are replaced by noun phrases denoting the participants in the syntax.

The second part of this model of verb meaning concerns the relationship between the event structure and the utterance, which is realized morphosyntactically. The event structure is associated with one or more morphosyntactic frames by argument realization principles. I assume that the event structure determines the options for argument realization. The model shown in (378) and (379) can therefore be expanded as in (382).

(382) HAPPENING IN THE WORLD

⇓ *event construal*

EVENT STRUCTURE
(= VERB ROOT + EVENT SCHEMA)

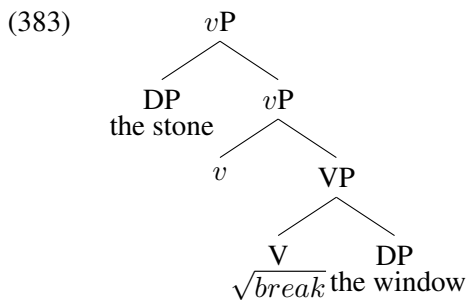
⇓ *argument realization*

MORPHOSYNTACTIC FRAME

Research paradigms vary in how exactly argument realization is implemented; there may be rules that map the event structure to the morphosyntactic frame, or the event structure in (381) may be given a syntactic representation (Borer, 2003, 2005; Harley, 2005, 2010; Ramchand, 2008; Mateu, 2012). All that is necessary for my purposes is that argument realization principles are sensitive to the components of the event structure; each event structure is associated with one or more syntactic structures.

¹⁵ I have replaced \sqrt{break} with \sqrt{broken} in the event structure in (381) for ease of reading; it should still be taken to represent the verb root.

In the window-breaking example, *the stone* is understood to be the argument of the ACT predicate of the event structure (the value of the argument x) in (381); this means it is syntactically realized as an external argument. *The window* is the argument of the BECOME predicate (the value of the argument y) in (381), so it is syntactically realized as an internal argument. The syntactic tree in (383) represents the vP *the stone broke the window*.



In this way, the arguments within the event structure are associated with particular positions within the syntactic representation.

The model of verb meaning described here allows for some degree of flexibility in two domains. First, the model allows a single happening in the world, such as the window-breaking happening described above, to be construed as an event in more than one way. One might say *the stone flew into the window*, using a directed motion event schema and the verb root \sqrt{fly} , *the stone hit the window* using an activity event schema and the verb root \sqrt{hit} , or *the window shattered*, using a change of state event schema and the verb root $\sqrt{shatter}$. This flexibility is a desirable attribute given that a single happening in the world can be described in more than one way.

The model also allows for a second kind of flexibility, one that is more immediately relevant to the problem of variable unaccusative/unergative behavior as it is presented here. In the event structure representation, a verb root pairs with an event schema to form the event structure. Crucially, a given verb root does not necessarily have to be associated with the same event schema every time it is used in an event description. That is, a single verb root may be associated with one type of event schema in some instances, but with another type of event schema in others. All that matters

is that the root is compatible with the schema.¹⁶ The resulting event structures thus differ from one another, and may therefore each be associated with different syntactic structures. Ultimately, this can give rise to the observation that a single verb root appears in an unaccusative syntactic structure in some instances and in an unergative syntactic structure in others. As I argue in the rest of this section, this is why variable unaccusative/unergative behavior arises with respect to, e.g., FCA and the genitive of negation construction in Russian. The following subsection provides an extended example illustrating the association of a single verb root with more than one event schema, and the resulting variable behavior.

3.5.2 Manner of motion events and directed motion events

In several languages, including English, Dutch, and Italian, manner of motion verbs display variable unaccusative/unergative syntactic behavior, depending on how the happenings they describe are construed as events (see Section 3.4.1). Here, I provide an account of this variability in the context of the model outlined above. I limit this discussion to the behavior of motion verbs in these three languages because my account of motion verbs in Russian relies on the analysis of existential events that I introduce later, in Section 3.5.3; my analysis of Russian motion verbs in particular can be found in Section 3.5.3.5. The discussion in this section is therefore not intended to account for any variable behavior observed with Russian motion verbs; instead, it is intended to serve as a proof of concept that, in principle, a verb root can be associated with more than one event schema.

English agentive manner of motion verbs, such as *swim*, *run*, and *dance* are known to display variable unaccusative/unergative syntactic behavior. In some instances, such verbs appear in the resultative construction without an object, and with a result XP directly predicated of their subject, as shown in (384). This property is considered to be a diagnostic of unaccusativity in English (Simpson, 1983; Levin & Rappaport Hovav, 1995), and examples like (384) suggest that these verbs

¹⁶ I leave as an open question exactly what it means for a root to be “compatible” with an event schema. One option would be to adopt Ghomeshi & Massam’s (1994) “Compatibility Constraint”, which states that “meaning contributed from a given source must be compatible with meaning contributed from all other sources” (178, (5)), which could be interpreted as prohibiting contradictory or inappropriate combinations of verb root and event schema.

should be classified as unaccusative verbs. However, these verbs can also appear in the resultative construction with a non-selected object, as in (385) (cf. **he danced his feet*). In such instances, the result XP is predicated of the (non-selected) object. Such behavior is only expected with unergative verbs.

(384) She danced free of her captors. (Levin & Rappaport Hovav, 1995, 186)

(385) He danced his feet sore. (Levin & Rappaport Hovav, 1995, 187)

Researchers have pointed out a key difference between the syntactic context in which such verbs show independent evidence of unaccusative behavior and the context in which they show evidence of unergative behavior—in the former instance they must appear with a phrase that delimits the scope of the motion, shown in (386) (Hoekstra, 1984; Levin, 1986; Levin & Rappaport Hovav, 1995; Levin et al., 1997).¹⁷

(386) He ran [into the room]_{PP}.

Levin & Rappaport Hovav show that the attested unergative behavior of such verbs arises in the absence of the directional phrase, and that unaccusative behavior arises when the directional phrase is present.

As mentioned in Section 3.4.1, this analysis is supported by uses of agentive manner of motion verbs in other languages as well (Hoekstra, 1984, 1999; Levin, 1986; Levin & Rappaport Hovav, 1995; Levin et al., 1997). For example, in Italian, the manner of motion verb *correre* ‘run’ can be used either with or without a directional phrase. When the directional phrase is present, the auxiliary is *essere* ‘be’, which is associated with unaccusative status; when the directional phrase is absent, the auxiliary is *avere* ‘have’, which is associated with unergative status, as in (387) and (388) (Hoekstra, 1984, 1999; Levin, 1986). That is, when *correre* ‘run’ appears with a directional phrase, it behaves as an unaccusative, and when it appears without one, it behaves as an unergative.

¹⁷ The phrase that delimits the scope of the motion is often a goal prepositional phrase. In (384), there is no goal prepositional phrase; instead *free of her captors*—the result XP—serves to indicate the direction or goal of motion. For a discussion, see Levin & Rappaport Hovav (1999).

- (387) *Ugo è corso a casa.*
 Ugo is run to home
 ‘Ugo ran home.’ (Rosen, 1984)
- (388) *Ugo ha corso meglio ieri.*
 Ugo has run better yesterday
 ‘Ugo ran better yesterday.’ (Rosen, 1984)

Parallel auxiliary selection facts hold for Dutch agentive manner of motion verbs when used with and without directional phrases, as in (389) and (390) (Hoekstra, 1984, 1999; Levin, 1986).

- (389) *Hij heeft/*is gelopen.*
 he has/is run
 ‘He ran.’ (Zaenen, 1993)
- (390) *Hij is/?heeft naar huis gelopen.*
 he is/has to home run
 ‘He ran home.’ (Zaenen, 1993)

In English, Italian, and Dutch, then, manner of motion verbs have variable unaccusative/unergative syntactic behavior depending on whether the directional phrase is present or absent.

Why can a single manner of motion verb root appear in some sentences with the hallmarks of unaccusativity, and in other sentences with the hallmarks of unergativity? As I mentioned at the end of the previous subsection, a single verb root can be associated with one event schema in some instances, but with another event schema in others. The reason for the variable behavior noted above is that verb roots like \sqrt{run} and \sqrt{dance} can be associated either with a manner of motion event schema—a type of activity event schema—or with a directed motion event schema. Only the latter event schema has a place for (and indeed requires) a goal or directional argument; as a consequence, the goal prepositional phrase is present in the unaccusative uses.

Consider the sentence *Mary danced*. This sentence describes a simple event consisting of a participant, Mary, acting in a certain manner (in this case, dancing). The event structure associated

with this sentence can be represented as in (391), in which the verb root \sqrt{dance} is associated with a manner of motion event schema, which is a type of activity event schema. In the representation, the verb root \sqrt{dance} is subscripted to the ACT predicate to indicate the type of activity. The association between a manner of motion verb root and a manner of motion event schema is likely the default association.¹⁸

(391) manner of motion event (activity):

$[x \text{ ACT}_{\langle \sqrt{dance} \rangle}]$

Alternatively, consider the sentence *Mary danced across the room*, which describes a happening in which Mary moved across the room while dancing. Levin & Rappaport Hovav (1999) argue that there are two subevents—Mary’s dancing and Mary’s traversal of the room—that become “coidentified” in such a sentence. This means that Mary’s dancing and Mary’s traversal of the room are considered to be, and are linguistically construed as, a single event. I represent the coidentification of the two subevents as in (392).¹⁹

(392) coidentification of a directed motion event and a manner of motion event:

$[x \text{ GO TO } y] \text{ by } [x \text{ ACT}_{\langle \sqrt{dance} \rangle}]$

The sentences *Mary danced* and *Mary danced across the room* are therefore associated with two distinct event structures.

Each of these two event structures is associated with its own syntactic configuration—the x argument of ACT in the simple manner of motion event in (391) is syntactically realized as an external argument, while the x argument of GO in the event in (392) is syntactically realized as an

¹⁸ By “default association”, I mean that, in the absence of a goal XP or other contextual clues that indicate that the event should be understood as a directed motion event, the verb root \sqrt{dance} will be associated with a manner of motion event schema; this is the association that arises when, e.g., *Mary danced* is uttered “out of the blue”. There are many possibilities for how to encode the default association—e.g., it could be an inherent, lexical association tied to the verb root or an association learned over time, via frequency of exposure to the verb root-event schema combination. Either of these possibilities would provide a constraint on the flexibility present in the system without undermining it.

¹⁹ It is possible to represent the coidentified subevents in (392) in another way. For example, the directed motion subevent, $[x \text{ GO TO } y]$, could alternatively be represented as $[x \text{ BECOME AT } y]$. For my purposes, all that matters is that the subevent is represented by a directed motion event schema.

internal argument. In this second instance a second argument is required—the goal or directional phrase represented by ‘TO y’. This is why the directional phrase is obligatory when the verb behaves syntactically as an unaccusative, and why the directional phrase cannot be present when the verb behaves syntactically as an unergative.

Under this analysis, verb roots themselves are not lexically specified as unaccusative or unergative; instead, the verb roots are compatible with certain event schemas, and the resulting event structures are compatible with certain syntactic structures. The event structures mediate the relationship between the verb root and unaccusative/unergative behavior.²⁰

In the following section, I introduce existential events in Russian and explain how variable unaccusative/unergative behavior arises in the expression of such events.

3.5.3 Existential events and beyond

The model of verb meaning outlined in Section 3.5.1 provides a way of understanding the variable unaccusative/unergative behavior of verbs used in the description of non-motion events as well. In this section, I focus on unexpected unaccusative uses of putative “unergative” verbs in the context of existential events. Specifically, I argue that many verb roots can be alternately associated with an existential event schema and other event schemas, such as a change of state event schema or an activity event schema, provided that the happening can be construed as an event of the relevant type. The ability of the verb root to be associated with more than one event schema leads to the variable behavior with respect to unaccusativity diagnostics documented in this chapter.

In research concerning the genitive of negation construction in Russian and its relationship to unaccusativity, Babby (1980, 2001) points out that many putative unergative verbs are found in the genitive of negation construction. Specifically, unergative verbs that appear with the genitive of

²⁰ There is the alternative possibility that manner of motion verbs in English, Dutch, and/or Italian display variable unaccusative/unergative behavior for the same reason that I suggest Russian does in Section 3.5.3.5—because such verb roots can be associated with an existential event schema, giving rise to unexpected unaccusative behavior. For example, English manner of motion verbs allow *there*-insertion and locative inversion, as in *There walked into the room three men* and *Into the room walked three men*, respectively; like Russian genitive of negation and FCA, both of these English constructions are used in the expression of existential events.

negation construction are found in negated “existential sentences” (Babby, 1980, 2001; Borschev & Partee, 1998; Partee & Borschev, 2004; Partee et al., 2011). In a positive existential sentence, a theme argument is asserted to exist or to appear at a place or time, while a negated existential sentence denies that the theme argument exists or appears at the given place or time. The genitive of negation construction, as in (271), repeated below as (393), is found in the latter environment.

(393) *Ne begalo tarakanov.*

NEG ran.NSG cockroaches.MPL.GEN

‘There were no cockroaches running around.’

(Partee et al., 2011)

In fact, Partee & Borschev (2004) argue that the Russian genitive of negation, as it appears on (surface) subjects, as in (393), is always used in the description of an existential event (with certain well-defined exceptions).

Sentence (393) is noteworthy for two reasons: first, unlike the Russian existential verb *est’*, to be discussed presently, the verb *begat’* ‘run’ is not inherently existential. Second, the verb is a putative unergative but is being used in the genitive of negation construction, a construction that is often argued to be a hallmark of unaccusativity. In what follows, I offer an explanation based on the model of verb meaning presented in Section 3.5.1 that accounts for both of these properties.

First, I discuss existential sentences in Russian and outline my assumptions about how arguments are realized in such sentences. Then, I illustrate how the model of verb meaning outlined in Section 3.5.1 handles the use of non-existential verbs in existential sentences—in other words, why verbs like *begat’* ‘run’ in (393) can appear in existential sentences. Combining these two proposals, I then show how, under this model, putative unergative verbs in particular can be compatible with unaccusative syntactic behavior (i.e. why they can appear with the genitive of negation and FCA), and I discuss the interpretive effects that arise when they do so. Finally, I illustrate how my analysis accounts for the variable behavior of verbs of various semantic classes, including spatial configuration verbs and manner of motion verbs.

3.5.3.1 Russian existential sentences

Existential sentences in Russian can be expressed in the present tense using the existential verb *est'*, whose past and future forms are homophonous with *byl'* 'be', as in (394).

- (394) *Na stole est'/ byla/ budet kniga.*
 on table is/ was.FSG/ will.be.3SG book.FSG.NOM
 'There is/there was/there will be a book on the table.'

When an existential sentence is negated, the noun phrase denoting the theme argument appears in the genitive case, as in (395); the negative form of *est'* is *net*.

- (395) *Na stole net/ ne bylo/ ne budet knigi.*
 on table.LOC NEG/ NEG was.NSG/ NEG will.be.3SG book.FSG.GEN
 'There isn't/there wasn't/there won't be a book on the table.'

In addition to the existential verb *est'*, Russian allows existential events to be described using other verbs. Some of these verbs have inherently existential meaning; these are verbs of existence or occurrence, such as *suščestvovat'* 'exist' as in (396).

- (396) *Edinorogov ne suščestvuet.*
 Unicorns.MPL.GEN NEG exist.3SG
 'Unicorns don't exist.'

Verbs that are not inherently existential in meaning can also be used in the description of existential events; I discuss these in Section 3.5.3.2.

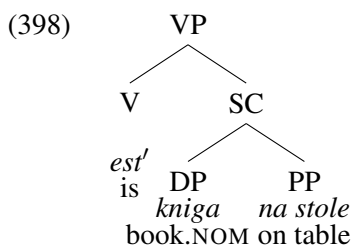
In terms of the model of verb meaning outlined above, I assume that there is an existential event schema that is manifested in existential sentences, as in (397). There, *x* represents the theme argument, the argument which is asserted to exist or appear—i.e. come into existence. I refer to the second argument, represented by *y*, as the spatiotemporal argument. This argument restricts the context of the existential event to some particular place or time; when it is absent, pragmatic context

determines how the existential event is restricted (see McNally, 1992; Borschev & Partee, 1998; Francez, 2007, 2010).

(397) existential event: $[x \text{ BE}_{\langle \sqrt{est'} \rangle} \text{ AT } y]$

The verb root, such as $\sqrt{est'}$ ‘be’ or $\sqrt{suščestvovat'}$ ‘exist’, can be associated with an existential event schema to form an existential event structure; I have included the root as a modifier of BE in (397).

The event structure is associated with a morphosyntactic frame by argument realization principles. Again, argument realization can be implemented in a variety of ways: one may have an argument realization rule that associates the theme and spatiotemporal participant with syntactic positions, or the event structure in (397) may already be syntacticized (Borer, 2003, 2005; Harley, 2005, 2010; Ramchand, 2008; Mateu, 2012). Given the link between existential sentences and unaccusative behavior, I assume that the theme participant is realized inside the VP. A positive existential sentence like (394) could be represented syntactically as in (398), which shows the theme and the spatiotemporal argument as two arguments of a small clause (SC) complement to the verb.



When an existential sentence is negated, as in (395), sentential negation scopes over the whole VP. Because the theme participant is realized inside the VP, under sentential negation, it can receive genitive case.

Not all researchers agree that the genitive of negation construction in Russian necessarily indicates unaccusative syntactic structure. Partee & Borschev (2004) in particular argue that the genitive case on (surface) direct objects of transitive verbs and the genitive case on (surface) subjects of intransitive verbs should not necessarily receive the same analysis, in part because of the interpretive

differences between the two types of sentence. Sentences of the former type do not obviously have existential meaning, while sentences of the latter type do; the hypothesis that the genitive argument is an underlying object in both types of sentences does not explain the difference. I believe that the analysis presented here resolves the issue: when the verb root is associated with an existential event schema, the association gives rise to both the existential interpretation and the unaccusative syntactic behavior.

In addition to predicting that genitive of negation should be possible in existential sentences, because the theme participant is realized inside the VP in the syntactic structure in (398), FCA is also predicted to be possible in such sentences, as shown in (399).

- (399) *Zdes' bylo vodoxranilišče i šljuzy,*
 here was.NSG water.reservoir.NSG.NOM and sluices.MPL.NOM,
gidrostancija i malen'kij gorodok pri nej.
 hydroelectric.power.station.FSG.NOM, and small town.MSG.NOM near it
 'Here there was a water reservoir and sluices, a hydroelectric power station, and a small town next to it.' (Crockett, 1976, 227)

In this way, existential sentences with existential verbs, whether positive as in (394) and (399), or negated as in (395) and (396), are accounted for.

3.5.3.2 Existential events described by non-existential verbs

As mentioned above, not all existential events in Russian are described by the existential verb *est'* or other verbs with inherently existential meanings like *suščestvovat'* 'exist': existential events can also be described using "lexical" (or non-existential) verbs, as in (353), repeated below as (400), and (401). Lexical verbs are those typically used in non-existential sentences, but they may also appear under a non-default usage in existential sentences, as below.

- (400) *Tam boljše ne igraet nikakix detej.*
 there anymore NEG play.3SG no children.GEN
 ‘There are no longer any children playing there.’ (Babby, 2001, 50-51)
- (401) *Ne belelo parusov na gorizonte.*
 NEG was.white.NSG sails.MPL.GEN on horizon
 ‘No sails were shining white on the horizon.’ (Partee et al., 2011)

When such lexical verbs are found in the genitive of negation construction, as in (400) and (401), the sentence as a whole must have an existential interpretation (Babby, 1980, 2001; Borschev & Partee, 1998; Partee et al., 2011). In this section, I discuss the use of lexical verbs in the description of existential happenings; I follow the line of research by Borschev & Partee (Borschev & Partee, 1998; Partee & Borschev, 2002, 2004, 2007; Partee et al., 2011), who outline the circumstances under which lexical verbs can be used in existential sentences, adapting their ideas to the framework presented in Section 3.5.1. I also propose a limitation on certain uses of change of state verbs appearing in existential sentences.

Borschev & Partee argue that in existential sentences like (400) and (401), lexical verbs can be felicitously used when the event denoted by the verb is typical of the theme—for example, speakers know from their experience in the real world that children as a rule typically play, and sails as a rule are white. For Borschev & Partee, there is a kind of equivalence between, e.g., *A sail was white on the horizon* and *There was a sail on the horizon*. Since sails are generally white, then, if a sail exists on the horizon, it is also being white on the horizon. Conversely, if there are no sails being visibly white on the horizon, there are no sails (at all) on the horizon. Thus, even though the sentence uses a lexical verb, the sentence is understood as having an existential meaning.

This phenomenon can be explained in terms of the model of verb meaning introduced in Section 3.5.1. I argue that a lexical verb root like \sqrt{belet} ‘be/turn white’²¹ or \sqrt{igrat} ‘play’ can be used

²¹ *Belet* is glossed here as ‘be/turn white’ because it can be understood as having a stative meaning or a change of state meaning, depending on context. As I discuss shortly, the different interpretations of the verb demonstrate how a single verb root can be used to describe real-world happenings of different types—in this instance, an existential event or a change of state event.

in the description of an existential event; in other words, a lexical verb root can be associated with the same existential event schema introduced in (397). The event schema in (402) differs from that in (397) only in that now, the verb root $\sqrt{belet'}$ modifies BE.

(402) existential event: $[x \text{ BE}_{\langle \sqrt{belet'} \rangle} \text{ AT } y]$

Assuming that the particular lexical verb root chosen and the existential event schema are compatible, nothing in the model prevents an association of the verb root and this event schema.

This is not to say, however, that any happening in the world can be described as an existential event, or that a given lexical verb root can always be associated with an existential event schema. Consider, for example, a situation in which the event denoted by the verb is not typical of the theme argument; in this case, an existential sentence using a lexical verb is not acceptable. For example, sentence (403) is odd unless special context is provided (Borschev & Partee, 1998; Partee & Borschev, 2004).

(403) ?? *Ne belelo domov na gorizonte.*

NEG shone.white.NSG houses.MPL.GEN on horizon

'No houses were shining white on the horizon.' (Borschev & Partee, 1998)

As Borschev & Partee argue, the oddness arises because houses are not always or even typically white; there is therefore no equivalence between *There was a house on the horizon* and *A house was white on the horizon*. Because many houses are not white, saying that no houses were visibly white on the horizon is not informative as to whether houses in general existed on the horizon. It is therefore difficult to understand (403) as having an informative existential meaning. And if the sentence does not have an existential meaning, then it cannot be the expression of an existential event, so the genitive of negation is not acceptable.

In terms of the model developed in Section 3.5.1, I attribute the oddness of (403) to the attempted construal (or description) of the happening as an existential event. The happening, in which no houses are white on the horizon, cannot be described as an existential event because there is no

equivalence between houses being visibly white on the horizon and houses existing on the horizon. If, however, a special context is supplied indicating that houses are typically white in a particular region, (403) becomes acceptable; it is interpreted as an existential sentence with the meaning that there were no houses present (at all) on the horizon (Borschev & Partee, 1998; Partee & Borschev, 2004). Again, I claim that the issue is whether the happening in the world can be construed as an event of a particular type, in this instance, whether the happening can be construed as an existential event. When the event denoted by the verb is typical of the theme argument, then the happening can be construed as an existential event, and the verb root $\sqrt{belet'}$ comes to be associated with an existential event schema, just as before.

Beyond the requirement that the event denoted by the verb be typical of the theme argument, I propose a further restriction concerning the properties of a happening that can allow for an existential event construal: happenings with a change of state component, in particular, are resistant to being construed as existential events. One of the distinctive characteristics of existential constructions found across languages is that not all verbs that are typically considered to be unaccusative can appear in existential constructions, even though their sole argument is VP-internal. In particular, change of state verbs are not generally found in existential constructions; for example, Irwin (2018) cites Birner (1995) and Levin & Rappaport Hovav (1995), who show that English change of state verbs resist locative inversion, another construction that involves an existential event construal.²² The incompatibility between change of state verbs and existential constructions is not well-understood, and a full explanation lies beyond the scope of this dissertation; however, this incompatibility can provide insight into the behavior of the genitive of negation with respect to change of state verbs in Russian.

Given the observed crosslinguistic incompatibility between existential constructions and change of state verbs, we might expect that change of state verbs would also be less likely to appear in

²² Additionally, while change of state verbs and inherently existential verbs are both typically considered unaccusative, they are classified as such on the basis of distinct diagnostics in the literature in which they are discussed; this has led some authors to propose distinct syntactic structures for the two sub-types of unaccusative verbs (Kural, 2002; Alexiadou & Schäfer, 2010; Alexiadou, 2011).

existential constructions in Russian. In Section 3.3, I discussed Russian deadjectival change of state verbs, including color verbs like *belet'* 'be/turn white', *želtet'* 'be/turn yellow', *krasnet'* 'be red, redden, blush', *sinet'* 'be/become blue(r)', and *černet'* 'be/turn black', and some other deadjectival change of state verbs like *glupet'* 'become stupid(er)', *staret'* 'become old(er)', *tolstet'* 'become fat(ter)', and *umnet'* 'become smart(er)'. While typically classified as unaccusatives, these verbs nevertheless sometimes fail to appear in the genitive of negation construction. For example, genitive of negation is unacceptable in Harves' sentences in (300)–(302), repeated below as (404)–(406).

- (404) * *Ni odnogo studenta ne po-glupelo za semestr.*
 not one.MSG.GEN student.MSG.GEN NEG PRF-became.stupid.NSG in semester
 intended: 'Not a single student became more stupid over the course of the semester.'
 (Harves, 2003, 311)

- (405) * *Ni odnoj studentki ne po-krasnelo vo vremja spektaklja.*
 not one.FSG.GEN student.FSG.GEN NEG PRF-blushed.NSG in time performance.GEN
 intended: 'Not a single female student blushed during the performance.'
 (Harves, 2003, 311)

- (406) * *Ni odnogo človeka ne po-tolstelo vo vremja vojny.*
 not one.MSG.GEN person.MSG.GEN NEG PRF-became.fat.NSG in time war.GEN
 intended: 'Not a single person became fat(ter) during the war.'
 (Harves, 2003, 311)

However, one should not conclude that such verbs can *never* appear in existential constructions; as shown in (401) with *belet'* 'be/turn white', at least some of these deadjectival verbs are able to appear in existential sentences with the genitive of negation.

The explanation that I propose is related to the available interpretations of the deadjectival color verbs *belet'* 'be/turn white', *želtet'* 'be/turn yellow', *krasnet'* 'be red, redden, blush', *sinet'* 'be/become blue(r)', and *černet'* 'be/turn black'. As indicated by their glosses, such verbs have two possible interpretations: a change of state interpretation, and a stative interpretation.²³ In their

²³ The other deadjectival change of state verbs discussed here, *glupet'* 'become stupid(er)', *staret'* 'become old(er)',

imperfective forms, as they are listed here, such verbs are open to either interpretation; however, the perfective formed with the prefix *po-* forces the change of state interpretation—i.e. while *belet'* can mean either ‘be white’ or ‘turn white’, *pobelet'* can mean only ‘turn white’. Given the use of the perfective form of the verb in (404)–(406), we can assume that the happenings described there are construed as change of state events.²⁴ However, the genitive of negation construction is compatible only with an existential event construal; this leads to the unacceptability of (404)–(406).²⁵ In other words, the sentences are unacceptable because of the general incompatibility between existential constructions and events that involve a change of state.

By contrast, in (401), the verb *belet'* ‘be/turn white’ is imperfective and therefore need not be interpreted as describing a change of state; there, it receives a stative interpretation. Given an appropriate choice of the theme argument, then, it is possible for *belet'* to be used in the description of an existential event. Here as before, the ability of the verb root to be associated with an existential event schema is not at issue: it is possible, in principle, for a verb root like $\sqrt{belet'}$ or $\sqrt{krasnet'}$ to pair with an existential event schema and for the verb (*belet'*, *krasnet'*) to appear in the description

tolstet' ‘become fat(ter)’, and *umnet'* ‘become smart(er)’, appear to lack a salient stative interpretation. If this is the case, my analysis predicts that they will not appear in existential constructions, i.e. they will not appear with the genitive of negation.

²⁴ Glushan (2013) also notes the role of aspect in determining the compatibility of change of state verbs and existential constructions in Russian. She illustrates this issue with locative inversion, another construction that is associated with existential sentences. In the locative inversion construction in (407) with the verb *soxnul'* ‘dry’, which describes a change of state, the perfective is unacceptable. When the verb is imperfective, the sentence improves, as in (408).

- (407) ?? *Na ulice vy-soxlo kakoe-to odeljalo.*
 on street PRF-dried.NSG some blanket.NSG.NOM
 intended: ‘On the street dried some blanket.’ (Glushan, 2013, 141)
- (408) *Na ulice soxlo kakoe-to odeljalo*
 on street dried.IPFV.NSG some blanket.NSG.NOM
 ‘On the street was drying some blanket.’ (Glushan, 2013, 141)

I explain the contrast between (407) and (408) as follows: in (407), due to the perfective form of the verb, the happening in the world that the sentence describes must be construed as a change of state event; the change of state event structure that arises is compatible with perfective aspect. By contrast, in (408), the happening that the sentence describes is construed as an existential event rather than a change of state event; the existential event structure that arises is compatible with imperfective aspect. Crucially, locative inversion is only possible when the happening is construed as an existential event.

²⁵ One might also note that the actions denoted by the verbs in (404)–(406) are not necessarily typical of their subjects. Therefore, these sentences may be unacceptable for more than one reason.

of an existential happening, as *belet'* does in (401). What is at issue is the kind of construal the happening receives: if it is construed as a change of state event, as it must have been when it appears with a perfective prefix, then it cannot simultaneously be construed as an existential event. And if it cannot be construed as an existential event, then the genitive of negation construction will be impossible. By contrast, when the verb is imperfective, it can be interpreted statively; this interpretation is in principle compatible with an existential event construal. Genitive of negation is then possible under such a construal.

This proposal can help make sense of the variable behavior of the verb *rasti* 'grow'; as shown in Section 3.3, *rasti* can occur with the genitive of negation in certain contexts, as in (409), but not in others, as in (410).

- (409) *Nikakix gribov zdes' ne rastët.*
 no.PL.GEN mushrooms.MPL.GEN here NEG grows.3SG
 'No mushrooms grow here.' (Glushan, 2013, 60)
- (410) **Nikakogo rebënka ne rastët.*
 no.MSG.GEN child.MSG.GEN NEG grows.3SG
 intended: 'No child grows.' (Glushan, 2013, 60)

Aronoff (1972) argues that English *grow* has (at least) two distinct senses: 'exist in a specified habitat' and 'become larger'. If Russian *rasti* 'grow' has the same two senses, then the judgments in (409) and (410) follow: sentence (409) instantiates the 'exist in a specified habitat' sense and inherently provides a description of an existential event—thus, it is compatible with the genitive of negation—and sentence (410) instantiates the 'grow larger' sense and must describe a change of state happening—thus, it is incompatible with the genitive of negation.

This analysis is able to account for the unexpected use of the change of state verbs *belet'* 'be/turn white' in (401) and *rasti* 'grow' in (409)—both are examples of a verb root that can be used in the description of either a change of state event or an existential event. When the verbs are used in the description of a change of state event, they are compatible with perfective aspect but incompatible

with the genitive of negation construction. When the same verbs are used in the description of an existential event, they are compatible with imperfective aspect, as well as with genitive of negation.

In this section, I have followed the line of work by Borschev & Partee on existential sentences and the genitive of negation in Russian (Borschev & Partee, 1998; Partee & Borschev, 2002, 2004, 2007; Partee et al., 2011); I showed how their proposal concerning lexical verbs used in the description of existential events can be understood under the model proposed in Section 3.5.1. Further, in order to account for the observed incompatibility between certain uses of change of state verbs and constructions associated with existential sentences, I proposed that happenings in the world with a change of state component are incompatible with an existential event construal. Verb roots like $\sqrt{belet'}$ ‘be/turn white’ (i.e. roots of “change of state” verbs) *can* appear with FCA and genitive of negation, but only when the happenings they describe are stative, lacking change of state components, and only when they have an appropriate choice of theme argument.

3.5.3.3 Existential events and activities

I showed in Section 3.5.3.1 how a typical existential sentence in Russian comes to have unaccusative syntactic behavior, and I showed in Section 3.5.3.2 how a lexical verb can appear in the description of an existential event. Here, I combine these two proposals to show how, in particular, verbs typically considered unergative—and indeed, typically considered agentive in many cases—can appear in the description of existential events, and how this leads to unaccusative syntactic behavior. I propose that some verb roots can be associated with either an existential event schema or an activity event schema, leading to unaccusative syntactic behavior in the former instance and unergative syntactic behavior in the latter. The ability of the verb root to be associated with different event schemas is reflected in observed interpretive differences between sentences that show the hallmarks of unaccusativity and sentences that show the hallmarks of unergativity but that nonetheless have the same verb.

Verbs that are taken to be unergative across languages, especially those that are agentive, generally resist showing the hallmarks of unaccusativity, such as (in Russian) appearing in the genitive of negation construction or appearing with FCA. For example, the verb *igrat'* 'play', cannot appear with FCA in its typical use, as shown in (292), repeated in (411). However, in certain circumstances—namely, when the verb is used in the description of an existential event—*igrat'* 'play' can show the hallmarks of unaccusativity, such as appearing in the genitive of negation construction as in (353), repeated in (412).

- (411) * *Na včerinke igral Andrej i Kolja.*
 at party played.MSG Andrey.MSG.NOM and Kolya.MSG.NOM
 intended: 'Andrey and Kolya played at the party.' (Babyonyshev, 1996, 60)

- (412) Context: *Na zabrošenom zavode upal i razbilsja Saša.*
 'Sasha fell and was badly hurt at the abandoned factory.'
Tam bolše ne igraet nikakix detej.
 there anymore NEG play.3SG no children.MPL.GEN
 'There are no longer any children playing there.' (Babby, 2001, 50–51)

I propose that the verb root $\sqrt{igrat'}$ 'play' is compatible with (at least) two event schemas, an activity event schema, as represented in (413), and an existential event schema, as represented in (414). The verb root is associated with an activity event schema when the happening in the world is construed as an activity, and the verb root is associated with an existential event schema when the happening in the world is construed as an existential event.

- (413) activity: [x ACT $\langle \sqrt{igrat'} \rangle$]

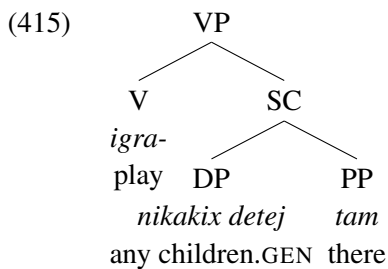
- (414) existential event: [x BE $\langle \sqrt{igrat'} \rangle$ AT y]

The verb root is associated with an activity event schema in sentences like (411). The resulting event structure is associated with an unergative syntactic structure; the argument of the verb is introduced

external to the verb phrase, leading to the unacceptability of FCA. This is the typical or expected pattern with a verb like *igrat'*, which is typically classified as an unergative.

The alternative possibility, by contrast, is that the verb root $\sqrt{igrat'}$ 'play' is associated with an existential event schema. I claim that this is the case in sentences like (412). Using (412) as an example, the happening in the world is one in which no children were playing at the abandoned factory. Because playing is something that children typically do, this happening can be characterized as involving the (non)existence of something at a given location. Therefore, it is compatible with an existential event schema as in (414).

Next, as described in Section 3.5.3.1, the existential event structure is associated with an unaccusative morphosyntactic frame; that is, the theme participant is realized inside the VP. I have represented this structure as in (415), in parallel to the existential structure in (398) above. In this representation, the theme and the spatiotemporal argument are arguments of a small clause complement to the verb.



Because the theme participant is realized inside the VP, it scopes under sentential negation, allowing it to receive genitive case.

This analysis provides insight not only into why a purportedly unergative verb can show the hallmarks of unaccusativity, but also into why interpretive differences arise between existential sentences using the verb and sentences with the verb in its typical use. For example, Kagan (2013) cites Babby's (2001) examples, reproduced below as (416) and (417), with so-called unergative verbs that appear with the genitive of negation.

- (416) *S tex por kak na ètom zavode sokratili zarplatu, tam ne rabotaet ni*
 since at this factory reduced.PL wages, there NEG work.3SG not
odnogo inženera.
 one.MSG.GEN engineer.MSG.GEN
 ‘Since they reduced wages at the factory, there hasn’t been a single engineer working
 there.’ (Babby, 2001)
- (417) *V xorovode ne pljasalo ni odnoj devuški (odni parni).*
 in Horovod NEG dance.NSG not one.FSG.GEN girl.FSG.GEN only guys
 ‘There wasn’t a single girl dancing in the Horovod (only guys).’ (Babby, 2001)

Kagan (2013, 54) notes that, like its English counterpart, *rabotat’* ‘work’, the verb used in (416), can be used to describe two different states of affairs: one in which a participant is physically engaged in the process of working and one in which a participant is employed somewhere. While these contexts often overlap, they can be distinct: one can felicitously say that an engineer *works* at a particular factory, but that she does not actually do anything there. Kagan says that (416) means that no engineer is employed at the factory; it cannot mean that there are engineers who are employed at the factory, but that they do not engage in any work. Analogously, she argues, in (417), the only possible meaning is that there were no girls present in the dance; the sentence is not compatible with a happening in which girls were present in the dance but not physically engaged in the process of dancing. In other words, what is being negated in these sentences is not the activity of working or dancing, but the existence of the theme at the given place or time.

While Kagan attributes the difference in the interpretation of the verbs in their typical use and in their use in existential sentences to a difference in the verbs’ stativity,²⁶ I adopt an alternative approach, inspired by the line of work by Borschev & Partee (Borschev & Partee, 1998; Partee & Borschev, 2002, 2004, 2007; Partee et al., 2011). On their approach, the meaning of lexical verbs may appear to be semantically “bleached” or “weakened” in existential constructions, but,

²⁶ Kagan argues that, in examples (416) and (417), the verbs are not agentive but instead stative, presumably based on the assumption that stative verbs are non-agentive.

nevertheless, such verbs actually retain their normal meanings in existential constructions. The apparent “bleaching” effect can be attributed to the observation about typicality outlined in Section 3.5.3.2—the assumed equivalence between doing the action denoted by the verb in a given location and existing in the given location. That is, with respect to (416), it is understood that working is typical of engineers in the factory. If an engineer is in the factory, she is assumed to be working in the factory; therefore, if she is not working in the factory, she is not in the factory at all. Under this analysis, there is not necessarily a loss of agentivity in existential sentences. Instead, Borschev & Partee argue that existential sentences are in a sense about the spatiotemporal argument, which is the “Perspectival Center” of the sentence. One could say, then, that the agentive component of the verb’s meaning is not at-issue or is defocused, without necessarily saying that the verb’s meaning has changed or that the verb is no longer agentive. Kagan’s (2013) observations could be understood in the context of this analysis—one might say that *rabotat’* ‘work’ in (416) still has an agentive argument, but the sentence as a whole is not about working, it is about a particular location and what exists there. This analysis does not require the verb’s meaning to undergo a change when it appears in an existential construction.

The interpretive differences that arise when certain verb roots are associated with an existential event schema *versus* an activity event schema can also be seen in the sentences shown in Section 3.3 concerning the verb *plavat’*, where it was glossed as both ‘swim’ and ‘float’. *Plavat’* displays variable behavior with respect to the genitive of negation construction, as shown in (297) and (298), repeated below as (418) and (419). Here, when *plavat’* appears with the genitive of negation, it is understood to mean ‘float’, but when it appears with a nominative argument, it can be understood to mean ‘float’ or ‘swim’.

- (418) a. *V bassejne nikakoj rebënok ne plavaet.*
 in pool no.MSG.NOM child.MSG.NOM NEG swims/floats.3SG
 ‘No child is swimming/floating in the pool.’ (Pesetsky, 1982, 45)

b. *V bassejne nikakogo rebënka ne plavaet.*

in pool no.MSG.GEN child.MSG.GEN NEG floats/*swims.3SG

‘No child is floating in the pool.’

≠ ‘No child is swimming in the pool.’

(Pesetsky, 1982, 45)

(419) *V supe ne plavalo nikakogo mjasa.*

in soup NEG floated.NSG no.NSG.GEN meat.NSG.GEN

‘No meat was floating in the soup.’

(Babby, 1980, 18)

These interpretive differences can be understood using the analysis just outlined. The verb root $\sqrt{\text{plavat'}}$ is compatible with more than one event schema—an activity event schema and an existential event schema. When $\sqrt{\text{plavat'}}$ combines with an activity event schema, the verb can be understood to mean ‘swim’, a meaning that highlights the self-motion of an agent. Since the genitive of negation construction is compatible only with an existential construal, not an activity construal, genitive of negation is not acceptable with the ‘swim’ interpretation, which focuses on the activity of an agent.

Alternately, the verb root can combine with an existential event schema. I assume, following Partee et al. (2011), that verbs in existential constructions retain their normal meanings. How do we understand the interpretation in (418b), that *plavat'* means ‘float’? It is possible that, without an enriched context, swimming is not considered an activity typical of children in the given location. It is also possible that the children’s agentivity or self-motion is not at-issue or is defocused in this sentence, leading speakers to prefer the ‘float’ interpretation, which is not necessarily about exerting energy to move oneself, instead emphasizing the spatial configuration of or existence of the participant with respect to a location.

The variable behavior of verbs of light and sound emission, which are typically considered unergative, despite being non-agentive, can be also understood as occurring due to the ability of a single verb root to be associated with more than one event schema. For example, the verb *šumet'* ‘make noise’ can be used in the description of an activity, as in (43), repeated below in (420), or

in the description of an existential event, as in (282), repeated below in (421). Only the second sentence is compatible with FCA.

- (420) * *Šumel* *Vanja* *i* *Kolja*.
 made.noise.PST.PL/*MSG Vanya.MSG.NOM and Kolya.MSG.NOM
 ‘Vanya and Kolya were making noise.’ (Crockett, 1976, 219)
- (421) *Šumel* *veter* *i* *dožd’*.
 made.noise.PST.PL/MSG wind.MSG.NOM and rain.MSG.NOM
 ‘The wind and rain were whooshing.’ (Crockett, 1976, 219)

In their existential use, such verbs can appear with the genitive of negation, as well, as shown in (422) and (423).

- (422) *V gorode ne progremelo ni odnogo vystrela*.
 in city NEG thundered.NSG not one.MSG.GEN shot.MSG.GEN
 ‘Not a single shot thundered in the city.’ (Kagan, 2013, 53)
- (423) *Na nebe ne mercalo ni zvjozdčki*.
 in sky NEG glowed.NSG NEG star.FSG.GEN
 ‘Not a single star was glowing in the sky.’ (Kagan, 2013, 53)

Under my analysis, the verb root of a light or sound emission verb like $\sqrt{\text{šumet}}$ ‘make noise’ is compatible with an activity event schema and an existential event schema. In (420), the verb root is paired with an activity event schema, and the resulting event structure is associated with an unergative syntactic structure. In (421)–(423), each verb root is paired with an existential event schema, and each resulting event structure is associated with an unaccusative syntactic structure. This allows FCA to be possible in (421) and genitive of negation to be possible in (422) and (423). Notably, in each of the examples that I claim instantiates an existential event, the event denoted by the verb is typical of the theme argument: wind and rain typically make noise, gunshots typically thunder through the sky, and stars typically glow, meaning that the happenings can easily be construed as

existential events. By contrast, unless there is further context indicating this to be the case, it is not clear that Vanya and Kolya typically make noise. Instead, Vanya and Kolya are interpreted as agents. This interpretation arises because they are animates under the activity event construal, and, according to Van Valin & Wilkins (1996), animate arguments tend to be understood as agentive in the absence of information to the contrary. Because the happening is construed as an activity rather than an existential event, FCA is ruled out in (420). While other researchers (e.g., Glushan (2013)) would attribute the difference in acceptability between the sentences in the minimal pair in (420) and (421) to the animacy of the participants in the events, I view the difference as arising due to the two distinct construals available to the happenings described by the sentences, and to the concomitant variable associations of the verb root with an event schema.

3.5.3.4 Spatial configuration events

I argued in the Section 3.5.3.3 that some verb roots can be used in the description of activities and in the description of existential events, and here I illustrate this phenomenon with a specific class of verbs. Spatial configuration verbs regularly alternate between an activity use and an existential use, an alternation that I argue is responsible for the variable unaccusative/unergative behavior of these verbs in Russian. Spatial configuration verbs denote the position or spatial configuration of an object, and in Russian they include *stojat'* 'stand', *sidet'* 'sit', and *ležat'* 'lie'. For example, such verbs can appear with FCA in some contexts, as in (273), repeated below as (424), but fail to appear with FCA in others, such as in (272), repeated below as (425).

(424) *Na stole stojal stakan i kuvšin.*
 on table stood.MSG glass.MSG.NOM and jug.MSG.NOM
 'On the table stood a glass and a jug.'

(425) * *Na lestničnoj ploščadke stojal sosed i ego brat.*
 on stairway landing stood.MSG neighbor.MSG.NOM and his brother.MSG.NOM
 intended: 'My neighbor and his brother were standing on the stairway landing.'

Similarly, the same verb *stojat'* 'stand' can appear with the genitive of negation construction in (426) but not in (427).

(426) *Ni odnogo stakana ne stojalo na stole.*
 not one.MSG.GEN glass.MSG.GEN NEG stood.NSG on table
 'Not a single glass stood on the table.'

(427) **Ni odnogo muščiny ne stojalo na ploščadke v èto vremja.*
 not one.MSG.GEN man.MSG.GEN NEG stood.NSG on landing at this time
 intended: 'Not a single man was standing on the landing at this time.'

The variable unaccusative/unergative behavior illustrated by the contrast between (424) and (425) and between (426) and (427) can be explained using the model of verb meaning developed above.

Across languages, verbs of spatial configuration may have multiple uses, including "simple position" uses as well as "maintenance of position" uses (Levin & Rappaport Hovav, 1995, 182–189; Rappaport Hovav & Levin, 2000). In the simple position uses, the participant is described as existing in a particular spatial configuration; in the maintenance of position uses, the participant is described as existing in a particular spatial configuration while exerting energy (potentially a minimal amount of energy) in order to to maintain that position. In (424) and (426), the arguments are inanimate, and only the "simple position" meaning is available. By contrast, in (425) and (427), the arguments are animate and can therefore be understood to be exerting some amount of energy to maintain their position. This distinction is the key to understanding the variable unaccusative/unergative behavior of this class of verbs.

I assume that the root of a spatial configuration verb, such as the root $\sqrt{\text{stojat'}}$ 'stand', lexicalizes the particular spatial configuration, in this case an upright or vertical position. The root would be appropriate to use either when something simply exists in an upright position (the "simple position" use) or as a part of an activity in which the upright position is maintained (the "maintenance of position" use). In the simple position use of verbs of spatial configuration, the verb root is associated with an existential event schema, and, in the maintenance of position use of such verbs, the

verb root is associated with an activity event schema. The resulting event structures are illustrated in (428) and (429), respectively.

(428) existential event: [x BE $_{\langle \sqrt{stojat'} \rangle}$ AT y]

(429) activity: [x ACT $_{\langle \sqrt{stojat'} \rangle}$]

The verb root $\sqrt{stojat'}$ ‘stand’ can in principle be associated with either of the two event schemas. If it comes to be associated with the existential event schema, the x argument of BE AT will be syntactically realized as an internal argument; if it comes to be associated with the activity event schema, the x argument of the ACT predicate will be syntactically realized as an external argument. In this way, the verb root $\sqrt{stojat'}$ ‘stand’ can appear in an unaccusative syntactic structure—such as it does in the simple position uses in (424) and (426)—or in an unergative syntactic structure—as it does in the maintenance of position uses in (425) and (427).

3.5.3.5 Russian motion verbs and existential events

Another area to which my analysis can be extended is the realm of Russian motion verbs. As in English, Dutch, and Italian—discussed in Section 3.5.2—Russian manner of motion verbs also display variable unaccusative/unergative behavior. For English, Dutch, and Italian, I analyzed observed variable behavior as arising due to the potential association of manner of motion verb roots with more than one event schema—a manner of motion event schema, giving rise to unergative syntactic behavior, or a directed motion event schema, giving rise to unaccusative syntactic behavior. The Russian literature considers variable behavior in the context of different diagnostics than the literature on other languages, and on the basis of these diagnostics, I suggest that Russian verbs of motion can potentially be associated with an existential event schema. This gives rise to unaccusative syntactic behavior (in particular, compatibility with the genitive of negation construction and FCA). Here, I lay out the data concerning this facet of the variable behavior of motion verbs in Russian and show how it can be accounted for under my analysis.

First, Russian has some verbs that are used in the description of directed motion—these may be motion verbs that specify inherent movement in a particular direction or manner of motion verbs used with a directional phrase. For example, *upast'* ‘fall’ is a verb that describes inherently directed motion, as in (430).

- (430) *Ja upal s dereva.*
 I fell.MSG from tree
 ‘I fell from the tree.’

Vojti ‘enter’ is also a directed motion verb, shown in (431); this verb of motion is morphologically composed of the directional prefix *v-* ‘in(to)’ and the basic motion verb *idti* ‘to go (by foot)’.

- (431) *My dolžny vojti s pravoj storony.*
 we should enter.INF from right side
 ‘We should enter from the right side.’

Both directed motion verbs show the hallmarks of syntactic unaccusativity; for example, *upast'* ‘fall’ can appear with the genitive of negation construction, as in (352), repeated below as (432), and *vojti* ‘enter’ can appear with FCA, as in (376), repeated below as (433).

- (432) *Ni odnogo stroitelja ne upalo s kryši.*
 not one construction.worker.MSG.GEN NEG fell.NSG from roof
 ‘Not a single construction worker fell from the roof.’

- (433) *V komnatu vošla molodaja ženščina i malen'kij mal'čik.*
 into room entered.FSG young woman.FSG.NOM and little boy.MSG.NOM
 ‘A young woman and a little boy entered the room.’ (Crockett, 1976, 213)

As discussed in Section 3.5.2, if these directed motion verbs are used in the description of directed motion events, as in (430) and (431), then unaccusative syntactic behavior is expected. However, in Section 3.5.3.2, I suggested that the genitive of negation construction and FCA can be used only in the context of existential events. If that is the case, then sentences (432) and (433) must be given an

alternative analysis—the compatibility of the verbs with genitive of negation and FCA must be due to the association of each of the verb roots $\sqrt{upast'}$ and \sqrt{vojti} with an existential event schema. Here, it becomes relevant that my conception of an existential event is a broad one, encompassing events of appearance as well as existence. For sentences with verbs of motion that involve the genitive of negation and FCA, the interpretation is that the theme argument appears on the scene.

Russian manner of motion verbs, too, can appear in the description of existential events; however, such verbs require a brief note of explanation. Certain imperfective verbs of motion in Russian occur in pairs, where both members of the pair make reference to the same manner of motion but have distinct morphophonological roots, e.g., *begat'* ~ *bežat'* 'run', *xodit'* ~ *idit'* 'walk', *ezdit'* ~ *exat'* 'go by vehicle', and *letat'* ~ *letet'* 'fly'. The first verb in each pair is a so-called multidirectional verb, also called an indeterminate or indefinite verb, which denotes motion that is not directed toward a single goal (such as a round-trip), or motion that is habitual or characteristic of the mover (Maltzoff, 1984; Timberlake, 2004). The second verb in each pair is a unidirectional verb, also called a determinate or definite verb, which denotes motion that has “a single direction towards a goal on a single occasion” (Timberlake, 2004, 412). While verbs of both types describe a manner of motion, because multidirectional verbs describe motion in any direction, they correspond to verbs found in manner of motion event descriptions in other languages. Unidirectional verbs, by contrast, are equivalent to manner of motion verbs found in directed motion event descriptions in other languages because, although they lexicalize a manner of motion, they describe motion in a single direction.

The behavior of these paired verbs of motion can be exemplified by *letet'* and *letat'*, both of which can be translated as 'fly'. *Letet'* describes motion in a single direction, while *letat'* describes motion in multiple directions or non-directed motion. In (349), repeated below as (434), an FCA sentence with *letet'*, the motion is unidirectional and a prepositional phrase indicating the goal of motion is present. In (435), a genitive of negation sentence with *letat'*, by contrast, the motion is multidirectional and the prepositional phrase describes the area of space in which the motion takes place. Speakers differ with respect to their judgment of sentences like (435); slightly more of my

speakers judged (435) acceptable than not.

- (434) *Vmeste so mnoj na kosmodrom letel German Titov,*
 together with me to launching.site flew.MSG German.MSG.NOM Titov.MSG.NOM
eščě neskol'ko kosmonavtov, grupa naučnyx
 another several.SG.NOM cosmonauts.MPL.GEN group.FSG.NOM scientific.MPL.GEN
rabotnikov i vrač.
 workers.MPL.GEN and doctor.MSG.NOM
 ‘With me to the launching site flew German Titov, several other cosmonauts, a group of
 scientists, and a doctor.’ (Crockett, 1976, 217)

- (435) *% Ni odnogo orla ne letalo v nebe.*
 not one.MSG.GEN eagle.MSG.GEN NEG flew.NSG in sky
 ‘Not a single eagle was flying in the sky.’

These sentences show that manner of motion verbs, both when they are used to indicate directed motion, like *letel'* ‘fly’ (unidirectional), and when they are used to indicate manner of motion, like *letat'* ‘fly’ (multidirectional), are acceptable with the hallmarks of unaccusativity, and more specifically, with what I have suggested are constructions that appear only under existential event construals.

A similar pattern can be seen with the pair *bežat'* (unidirectional) and *begat'* (multidirectional), both of which can be translated as ‘run’. In (375), repeated below as (436), the verb *bežat'* describes unidirectional motion, and there is a prepositional phrase that indicates the goal of the motion. In this sentence, the verb can appear with FCA.

- (436) *K beregu bežal Kolja i Vanja.*
 towards shore ran.MSG Kolya.MSG.NOM and Vanya.MSG.NOM
 ‘Kolya and Vanya were running towards the shore.’ (Crockett, 1976, 213)

The multidirectional counterpart, *begat'*, can be also used in unaccusative contexts, such as with the genitive of negation, as we have seen in (271), repeated as (437). In this sentence, this verb

occurs without a directional phrase; the location in which the running takes place is understood from context.

(437) *Ne begalo tarakanov.*

NEG ran.NSG cockroaches.MPL.GEN

‘There were no cockroaches running around.’

(Partee et al., 2011)

I attribute the acceptability of (437), as well as the (relative) acceptability of (435), to the existential use of the multidirectional verbs *begat'* ‘run’ and *letat'* ‘fly’. The verb root $\sqrt{\textit{begat'}}$ is associated with an existential event schema in (437), rather than a manner of motion event schema; similarly, $\sqrt{\textit{letat'}}$ is associated with an existential event schema in (435), for those speakers who accept the sentence. This association allows the verbs to appear with a hallmark of unaccusativity, the genitive of negation.

I would therefore argue that all of the sentences in this subsection that allow FCA and the genitive of negation are actually existential sentences (in the broad sense); the verb roots are associated with an existential event schema rather than a directed motion event schema or a manner of motion event schema. Indeed, Crockett (1976, 233-234) proposes that (433), (434), and (436) represent existential uses, noting that the sentences “do not assert what the referents of the subject nouns were doing or what they were aware of experiencing but rather identify the individuals who were in existence in certain spaces”; in other words, the movement of the referents is secondary to their existence.

It remains an open question whether the roots of these Russian manner of motion verbs can *also* be associated with a directed motion event schema. Because I claim that the genitive of negation construction and FCA are possible only with existential events, evidence from those diagnostics can only determine whether the verb root can combine with an existential event schema. The evidence presented here is neutral concerning whether an association between the verb root and a directed motion event schema, as found in some other languages, is also possible.

To conclude this section, I have shown that verbs of many different types can appear at times

with the hallmarks of unaccusativity and at other times with the hallmarks of unergativity. I have argued that this behavior arises because a single verb root can in principle be associated with more than one event schema, provided that the happening in the world can be construed as an event of the relevant type. In particular, the Russian verb roots shown here can be associated with an existential event schema, making the verbs compatible with the genitive of negation and FCA, as well as with other event schemas, potentially giving rise to unergative syntactic behavior.

3.6 Conclusion

In this chapter, I have investigated variable unaccusative/unergative behavior verbs with respect to selected unaccusative phenomena in Russian, asking how such behavior arises—specifically, asking how verb meaning must be structured in order for variable unaccusative/unergative syntactic behavior to be possible. I have argued against the proposal that there are two lexically defined classes of intransitive verbs, unaccusatives and unergatives, and argued instead for a more elaborate system. In this system, real-world happenings are linguistically construed as events of specific types. Verb roots used in the description of the events join with compatible event schemas to form event structures, and these event structures are associated with morphosyntactic frames. “Variable behavior verbs” reflect instances of a single verb root being compatible with more than one event schema; this results in the association of a single verb root with more than one morphosyntactic structure.

I have focused in particular on verbs whose roots can be used in the description of existential events, and I have argued that FCA and the genitive of negation in Russian are possible only under an existential event construal. I have not claimed that other diagnostics of unaccusativity in Russian, such as the use of distributive *po*-phrases or quantificational prefixes on verbs also require an existential event construal. While I showed in Section 3.3 that these diagnostics are sensitive to semantic factors such as the animacy and agentivity of the verb’s argument, I do not claim that the conditions under which such verbs show unexpected unaccusative or unergative syntactic behavior

are identical to the conditions under which, e.g. the genitive of negation does.²⁷ This is a matter for further investigation.

In the same vein, I do not claim that *all* variable unaccusative/unergative behavior (in Russian or in any language) can be attributed to the possibility of an existential event construal. Instead, I attribute variable unaccusative/unergative behavior to the more general ability of a single verb root to combine with more than one type of event schema. Indeed, my analysis builds on the approach to variable unaccusative/unergative behavior presented in Levin & Krejci (2019) for English precipitation verbs like *rain*; there, the claim is that the verb root \sqrt{rain} can combine with a substance emission event schema, resulting in unergative syntactic behavior, or with a directed motion event schema, resulting in unaccusative syntactic behavior. Similarly, as described in Section 3.5.2, I attribute the variable unaccusative/unergative behavior of an English manner of motion verb like *dance* to the ability of the verb root to be associated with either a manner of motion event schema, resulting in unergative syntactic behavior, or a directed motion event schema, resulting in unaccusative syntactic behavior. In this way, the analysis presented in this chapter is a general one, that can be adopted to account for variable unaccusative/unergative behavior across languages, without necessarily being restricted to certain types of events.

Despite the generality of this approach, I do not necessarily claim that any verb root can be associated with any event schema. I have not claimed anything about the presence/absence, amount, or type of grammatical information encoded in a verb root—I have only said that the verb root contains (at least) the idiosyncratic components of verb meaning—so my analysis is therefore compatible with a number of existing approaches. Under a purely constructional approach (Borer, 2005, i.a.), verb roots are distributed freely in syntax, containing no grammatical information and potentially being free to combine with any event schema. Alternatively, under some projectionist accounts (Rappaport Hovav & Levin 1998; Rappaport Hovav 2017), each verb root has an ontological type (one of a limited set of options) that limits which event schemas it can combine with. A verb root

²⁷ See, for example, Kural (2002), who argues that different diagnostics of unaccusativity in a single language can be sensitive to different components of the syntactic structure. He proposes a four-way distinction among intransitive verbs rather than a two-way distinction in order to explain why the diagnostics give non-uniform results.

can still be associated with more than one event schema in principle, but not every verb root will be compatible with every event schema; for example, given the general crosslinguistic incompatibility between change of state verbs and existential constructions, we might expect verb roots that lexicalize a result state to be incompatible with existential event construals. Under this approach, one would have to say that the information encoded in a verb root must not contradict any information in the event schema (see Ghomeshi & Massam's (1994) "Compatibility Constraint"). My analysis is compatible with either type of approach—as long as it is possible for a verb root to combine with more than one event schema, we can expect to see variable unaccusative/unergative behavior of the kind presented here.

The analysis helps explain why certain verbs' syntactic behavior varies systematically with their meaning in a given context. Previous analyses propose that verbs' behavior with respect to FCA and the genitive of negation construction in Russian varies according to the interrelated semantic factors of animacy, agentivity, volitionality, or "experiencerhood" (in a particular sense) of the verbs' arguments as they figure in a given use of the verb. While it makes sense to see these semantic factors as influencing variable unaccusative/unergative behavior, I have shown that no factor by itself can predict whether a given instance of a verb will show unaccusative or unergative syntactic behavior. Instead, I take these semantic factors to reflect properties of happenings in the world; as such, they influence how a happening is conceptualized and therefore how it is linguistically construed as an event. Because they influence which event schema is associated with the verb root, they indirectly influence which morphosyntactic frame is ultimately used.

The approach I present in this chapter illuminates the descriptive generalizations concerning the unaccusative/unergative distinction put forward in a line of research by Sorace (2000) and colleagues (e.g., Keller & Sorace, 2003). Working primarily on Romance and Germanic languages, researchers in this paradigm organize intransitive verbs into a continuum based on their susceptibility to variable auxiliary selection, among other unaccusativity diagnostics. The continuum ranges from "core unaccusatives" to "core unergatives", as illustrated in (438). Sorace (2000) shows that

core unaccusatives and core unergatives have relatively consistent behavior, both within an individual language and across languages, with respect to auxiliary selection and other unaccusativity diagnostics. Core unaccusatives are verbs involving change of location like *come*, *arrive*, and *leave*, and core unergatives are verbs involving controlled, non-motional processes like *work*, *play*, and *talk*.

(438) Sorace's (2000) Auxiliary Selection Hierarchy:

Change of Location: <i>come, arrive, fall, leave</i>	CORE UNACCUSATIVE
Change of State: <i>appear, disappear, happen, occur, grow</i>	
Continuation of Pre-existing State: <i>stay, remain, last, survive, persist</i>	
Existence of State: <i>be, exist, belong, seem suffice, please</i>	
Anticausative Verbs: <i>blacken, increase, advance, continue, decrease</i>	
Uncontrolled Process: <i>shiver, be horrified, rain, shine, gush, drip, cough</i>	
Controlled, Motional Process: <i>dance, jump, swim, run, roll</i>	
Controlled, Non-motional, Affecting Process: <i>abdicate, join, yield</i>	
Controlled, Non-motional, Unaffecting Process: <i>work, play, talk</i>	CORE UNERGATIVE

Many verbs fall into an intermediate space in the hierarchy, showing less consistent behavior with respect to auxiliary selection and other unaccusativity diagnostics. In this intermediate space, Sorace argues, semantic factors like animacy, agentivity, and aspect play a role in determining whether the verbs show the syntactic properties typically associated with unaccusativity or unergativity.

Under my approach, the observed gradience or variability between unaccusative syntactic behavior and unergative syntactic behavior arises because happenings in the world can be described in more than one way and because, concomitantly, the relevant verbs roots can be associated with more than one syntactic structure. It is therefore possible for a given verb root to be more or less likely to appear in an unaccusative or an unergative syntactic structure. For example, the verb root of one of Sorace's change of state verbs, like $\sqrt{\text{appear}}$, is most compatible with a coming into existence event schema and resistant to association with an activity event schema, so it is much more likely

to show the hallmarks of unaccusativity than the hallmarks of unergativity. By contrast, the verb root of one of Sorace's controlled motional processes, like \sqrt{dance} , is compatible with (at least) a manner of motion event schema and a directed motion event schema, so it may variably display the hallmarks of unaccusativity and those of unergativity. Importantly, semantic factors like animacy or agentivity can influence how a happening in the world is construed and therefore which event schema is chosen. This approach provides another way of understanding the intermediate space between core unaccusatives and core unergatives—verbs in the center of the continuum are not simply intermediate between unaccusative and unergative classification; rather, the roots of such verbs are compatible with more than one event schema, and their “variable” syntactic behavior reflects this versatility.

Chapter 4

The syntactic analysis of FCA in Russian

4.1 Introduction

In this chapter, I present a syntactic analysis of first conjunct agreement (FCA) in Russian that builds on the view of Russian syntax presented in the previous chapters. The analysis accounts for the two major restrictions on the distribution of FCA in Russian—namely, that FCA occurs only when the triggering noun phrases appear postverbally and that FCA is triggered only by internal arguments. However, this analysis goes further than those previously proposed for Russian and other Slavic languages (Babyonyshev, 1996; Harves, 2003; Bošković, 2009, 2010; Glushan, 2013), by presenting and explaining the novel observation that the two nominative noun phrases do not form a constituent in FCA constructions. Combined with the view of the Russian clause outlined in the previous chapters, the analysis provides insight into how and why FCA in Russian differs from closest conjunct agreement in other languages.

As a preliminary, in Section 4.2, I show that FCA in Russian is a syntactic phenomenon: it cannot be derived by appealing only to the linear order of the verb and its arguments. I argue that accounts of closest conjunct agreement in other languages in which agreement is determined in part by linear order in the phonological component (e.g., Bhatt & Walkow, 2011, for Hindi object agreement) do not extend to Russian FCA.

In Section 4.3, I contrast two families of hypotheses that have been previously proposed to account for FCA crosslinguistically: one in which the agreement-triggering noun phrases are immediately conjoined, with FCA arising due to the interaction of the mechanism that determines agreement and the asymmetrical structure of conjunction (e.g., Munn, 1999; Van Koppen, 2005); and the other in which the agreement-triggering noun phrases are not immediately conjoined, but instead the conjunction occurs at a higher level (Aoun et al., 1994, 1995). Under this second hypothesis, two or more phrases, each at least as large as a verb phrase, are conjoined, with concomitant non-pronunciation of some material. I show that some instantiations of hypotheses from either family can account for certain distributional facts about FCA in Russian, but that previously overlooked data indicates that only the second hypothesis is appropriate. While this type of analysis of conjunct agreement across languages has fallen out of favor in recent years, and it is certainly not the correct analysis of conjunct agreement in all languages (see Johannessen, 1996; Munn, 1999), I argue that it best fits the distribution of FCA in Russian.

Section 4.4 spells out the main proposal of this chapter, that FCA in Russian is the result of VP-level coordination. Specifically, I show that the relevant noun phrases, when they occur in FCA constructions, are not actually immediately conjoined and do not form a syntactic constituent. Instead, FCA in Russian is the result of the conjunction of two or more verb phrases with identical verbs, with concomitant Across-the-Board movement of the verbs out of their verb phrases to adjoin to the aspectual head Asp. This analysis is similar in spirit to Aoun et al.'s (1994) analysis of FCA in varieties of Arabic, while implemented so as to avoid some of the potential problems that Aoun et al.'s analysis carries. I further argue that the first noun phrase in the FCA construction in Russian moves covertly to the specifier of TP, and I discuss the consequences of this property of the analysis for the structure of Russian and for the nature of coordination.

Next, in Section 4.5, I present and argue against an alternative analysis of FCA in Russian. Under this alternative account, the nominative noun phrases *are* immediately conjoined, but they are not DPs—they are smaller, perhaps the size of NPs. Under this proposal, conjoined noun phrases that are as large as DPs always resolve to plural agreement, but noun phrases that are the size of

NPs, Small Nominals (in the sense of Pereltsvaig (2006)), have the potential to trigger FCA. This analysis can potentially account for some of the data presented in Section 4.4.3; however, I show that the analysis is empirically unsupported by Russian data, and that it is therefore inferior to the analysis presented in Section 4.4 involving conjunction at the level of the verb phrase.

Finally, in Section 4.6, I discuss Russian FCA in a crosslinguistic perspective. I note that some pieces of the analysis that I present in this chapter for Russian FCA may not apply in other languages. For example, while I analyze Russian FCA as occurring in the context of VP-level coordination, FCA in other languages appears to occur in the context of DP-level coordination. For me, FCA is ruled out in the context of DP-level coordination in Russian because Russian has an EPP requirement on T that is satisfied only when the specifier of TP is filled; languages that do not have such an EPP requirement could in principle allow FCA in the context of DP-level coordination. This section also considers other factors that may vary from language to language, affecting the availability and distribution of FCA. Section 4.7 concludes.

4.2 Linear approaches to FCA

Before I argue for a particular syntactic analysis of FCA, it is necessary to show that FCA is a syntactic phenomenon to begin with, rather than one that can be reduced to or explained by linear order.¹

First, Russian FCA should not be considered an example of agreement attraction, a type of speech error that occurs when the verb bears the agreement features of a nominal in close linear proximity to it, instead of bearing the features that would be expected given typical agreement

¹ There is a third logical possibility—instead of being given a syntactic explanation or an explanation based on linear order, FCA in Russian could be considered to be the result of semantic agreement. Semantic agreement proceeds according to the controller's semantic features rather than according to its syntactic features; for example, singular collective nouns can trigger plural verbal agreement in British English, as in *The government are planning to increase taxes*. This possibility can be quickly ruled out for Russian FCA: semantically, there are two or more entities denoted by the noun phrases in an FCA construction, so one would reasonably expect that any semantic agreement would be plural rather than singular. This issue is complicated by the analysis to be presented later in this chapter; see Section 4.3.2 for more discussion of semantic and syntactic agreement in the context of coordinated phrases.

patterns (Bock & Miller, 1991; Bock et al., 2001; Bock, 2004; Lorimor et al., 2008). For example, in an utterance like *Minority ownership of businesses are up*, though the head noun of the subject, *ownership*, is singular, the verb shows plural marking. The plural noun *businesses*, embedded in a prepositional phrase modifying the head noun, is linearly adjacent to the verb; their linear proximity is said to induce plural marking on the verb.

Although speakers produce utterances involving agreement attraction, upon reflection, they usually regard such examples as ungrammatical; by contrast, while there is significant variation between Russian speakers concerning the acceptability of FCA, the speakers I have consulted with do not regard FCA constructions in general as errors. FCA constructions are also richly attested in both colloquial and formal speech, as well as in Russian poetry and literature, as in (439).

(439) *V derevne poslyšalsja topot i kriki.*

in countryside was.heard.MSG clatter.MSG.NOM and shouts.MPL.NOM

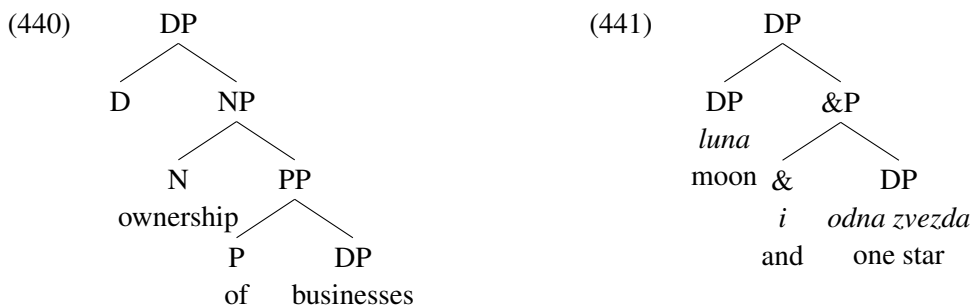
‘In the countryside was heard a clatter and shouts.’ (Tolstoy, *War and Peace*)

Additionally, sentences with FCA are also sometimes explicitly described as acceptable in Russian grammars (see Crockett, 1976, Ch. 2). Because sentences with FCA are present in literature and are considered acceptable by many speakers, they are not likely to be the result of processing errors.

Furthermore, the vast majority of agreement attraction occurs when a *plural* nominal that is linearly close to a verb induces *plural* verbal agreement; the opposite pattern, in which the proximity of a singular nominal and a verb results in singular agreement, is much less frequent and may not differ reliably from chance (Bock & Miller, 1991; Bock & Eberhard, 1993). Since FCA involves singular agreement, this is yet another reason that it should not be attributed to attraction. Finally, while agreement errors in general become more frequent when the verb is separated from the head nominal by more linguistic material (Nicol, 1995), FCA constructions regularly occur with no material separating the verb and the first noun phrase, as in (439). Given the differences between FCA and agreement attraction, I conclude that they are distinct phenomena.

If the FCA construction is not an instance of agreement attraction, then how does it arise?

Notice that noun phrases in FCA constructions are not perfect syntactic analogues to noun phrases in agreement attraction examples like *Minority ownership of businesses are up*. In the latter, the noun that appears to trigger verbal agreement, *businesses*, is embedded inside a prepositional phrase that modifies the head noun, as in (440); there is no conjunction of noun phrases. By contrast, the first nominal in FCA constructions is generally analyzed as the structurally highest conjunct in a conjoined noun phrase, as in (441).



Under standard assumptions about how an agreement probe targets its goal (Chomsky, 2000, 2001), the verb should never be able to agree with *businesses* in (440) because it is too deeply embedded in the structure. By contrast, the noun phrase *luna* ‘moon’ in (441) is in a higher syntactic position within the conjoined noun phrase. Many researchers working on FCA in a variety of languages attribute the FCA pattern at least in part to the syntactic position of the first conjunct (Babyonyshev, 1996; Munn, 1999; Doron, 2000; Van Koppen, 2005; Bošković, 2009, 2010; Bhatt & Walkow, 2011); while analyses vary considerably in their implementation, they share the idea that at least some of the features on the agreement probe are valued by those of the structurally highest noun phrase within the larger conjoined noun phrase. Before I present the details of such analyses in Section 4.3, I argue here that FCA in Russian, too, is the result of genuine syntactic agreement rather than purely linear order or proximity.

In many of the examples of FCA shown in this dissertation, the verb immediately precedes the first conjunct. One could hypothesize that the linear adjacency between the two is responsible for FCA; for example, one could propose that FCA is somehow licensed by adjacency at PF. However,

the verb need not be immediately linearly adjacent to the first noun phrase in Russian FCA constructions. In (442), an adverb interrupts the adjacency of the verb and the first noun phrase, and in (443), a secondary predicate and a prepositional phrase interrupt the adjacency.

(442) *V polnoč' v nočnom nebe pojavilas' vdrug luna i odna zvezda.*
 at midnight in night sky appeared.FSG suddenly moon.FSG.NOM and one.FSG.NOM

star.FSG.NOM

'At midnight the moon and one star suddenly appeared in the night sky.'

(443) *Čerez nedelju byl najden mērtvym v sosednej derevne poët i žurnalist.*
 after week was.MSG found.PSV.MSG dead.MSG.INST in neighboring village

poet.MSG.NOM and journalist.MSG.NOM

'After a week a poet and a journalist were found dead in a neighboring village.'

Linear adjacency can also be interrupted in future imperfective sentences, which are formed with a tensed form the auxiliary *byt'* 'be' followed by an infinitival form of the verb. The auxiliary can display FCA even though it is separated from the two conjoined noun phrases by the infinitive, as in (444).

(444) *Na vxode budet viset' zvonok i zamok.*
 on entrance will.3SG hang.INF bell.MSG.NOM and lock.MSG.NOM

'At the entrance there will be a bell and a lock.'

(RNC. Karmalita & Zajceva. *Byt'* 'kak doma' v mestax...2011)

This is evidence that FCA is not simply a result of immediate linear adjacency of the verb and the first noun phrase, but instead suggests that the head that determines verbal agreement, T, is in a syntactic relationship with the first noun phrase.

Furthermore, there is no obvious principled way in which an analysis that relies on linear adjacency can explain why FCA is triggered only by what I have argued in Chapter 3 are internal

arguments, as in (445), but not by what I have argued are external arguments, as in (446).

(445) *Pri perezde razbilsja stakan i kuvšin.*
 during moving broke.MSG glass.MSG.NOM and pitcher.MSG.NOM
 ‘During the move a glass and a jug broke.’

(446) **Na včerinke igral Andrej i Kolja.*
 at party played.MSG Andrey.MSG.NOM and Kolya.MSG.NOM
 intended: ‘Andrey and Kolya played at the party.’ (Babyonyshev, 1996, 60)

If linear proximity or linear order alone determined whether FCA is acceptable, we would have no way to account for why (445) should be acceptable while (446) is not. If instead the analysis of FCA makes reference to the hierarchical relationships between syntactic elements in the clause (specifically, the syntactic positions of the nominals involved in each sentence), the contrast in acceptability between (445) and (446) can be accounted for.

Some recent analyses of FCA in other languages incorporate both the syntactic structure of the clause as well as the linear order of the verb and nominals. Under these proposals, it is assumed that the two noun phrases are immediately conjoined to form a larger noun phrase. Agreement is decomposed into two parts: in the narrow syntax, the agreement target is determined to be the larger, conjoined noun phrase, and at PF, some features within that target are expressed morphologically (Van Koppen, 2005, 2007; Benmamoun et al., 2009; Bhatt & Walkow, 2011). For example, Bhatt & Walkow (2011), working on Hindi, propose an analysis of verbal agreement with direct objects which consist of conjoined noun phrases that relies on this division of labor; for them, T establishes an agreement relationship with the entire conjoined noun phrase in the narrow syntax, and at PF, the agreement target is determined to be the ϕ -feature-containing node within that conjoined noun phrase that is linearly closest to T. This system allows them to account for the observation that Hindi verbs, like those in Russian, need not be immediately adjacent to a conjunct in order to agree with it.

Crucially, closest conjunct agreement in Hindi occurs with *direct objects*; when the Hindi verb

agrees with a conjoined *subject* instead, it must show plural agreement.² Bhatt & Walkow propose that the asymmetry arises because of a difference in which features are accessible to T when it agrees with a DP direct object *versus* when it agrees with a DP subject. Let's consider each situation in turn, starting with direct objects. Under Bhatt and Walkow's analysis, *v* assigns accusative case to the direct object; in doing so, it checks the ϕ -features on the direct object DP. These features then become inaccessible to further agreement relations. Therefore, when T probes the direct object DP, it cannot value its ϕ -features. Instead, T must resolve its ϕ -features at PF, potentially leading to agreement with the linearly closest conjunct. The situation with subject DPs is different: there, T assigns (nominative) case to the subject DP directly; T is therefore able to value its ϕ -features with those of the nominative subject DP in the narrow syntax. When the nominative subject DP consists of two or more conjoined noun phrases, this results in plural agreement on T.

Unlike in Hindi, the Russian verb agrees only with nominative arguments. This means that, in order to apply Bhatt & Walkow's account of closest conjunct agreement in Hindi to FCA in Russian, we need to look specifically at the account's predictions for verbal agreement with nominative arguments. Bhatt & Walkow's account would predict that, when the nominative argument consists of conjoined noun phrases, plural agreement is required.³ Therefore, on the assumption that the two relevant noun phrases in Russian are immediately conjoined, Bhatt & Walkow's analysis does not predict that FCA should occur at all.

Further, if we assume that the two relevant noun phrases are immediately conjoined, there does not seem to be a way of adapting Bhatt & Walkow's analysis so that it correctly predicts the pattern of FCA in Russian. The most straightforward way to adapt the analysis would be to suppose that T has the option of either (a) valuing its ϕ -features in the narrow syntax with those of the larger conjoined noun phrase—resulting in plural agreement—or (b) valuing its ϕ -features at PF with

² The status of an intransitive verb as unaccusative or unergative does not appear to play a role in the appearance of closest conjunct agreement in Hindi.

³ This (faithful) implementation of Bhatt & Walkow's analysis is completely consistent with the analysis of Russian that I present in this chapter: when the nominative arguments in Russian are *immediately conjoined*, the only grammatical option is plural agreement. See Section 4.4 for the implementation of the analysis of FCA in Russian and Section 4.6 for a discussion of languages that apparently do allow FCA when two noun phrases are immediately conjoined.

those of the linearly closest noun phrase that is a subset of the larger conjoined noun phrase—resulting in FCA. Under this adapted analysis, FCA is predicted to occur when the nominative noun phrases follow the verb, even if the verb and the first noun phrase are not immediately adjacent.

While this adapted version of Bhatt & Walkow’s analysis correctly predicts that FCA is possible in Russian in e.g. sentences like (445), it also overpredicts; specifically, it incorrectly predicts that FCA in Russian should be possible in sentences in which the conjoined nominative noun phrase serves as the external argument, as in (446). Additionally, this adapted analysis predicts that a verb should be able to agree with the closest noun phrase when the noun phrases are preverbal—an instance of last conjunct agreement (LCA). LCA is possible in Hindi object agreement, but it is available only in very limited contexts in Russian. A grammatical example of FCA is shown in (447); compare to the ungrammatical example of LCA in (448).

(447) *Na stole stojal stakan i pepel'nica.*
 on table stood.MSG glass.MSG.NOM and ashtray.FSG.NOM
 ‘On the table stood a glass and an ashtray.’

(448) **Stakan i pepel'nica stojala na stole.*
 glass.MSG.NOM and ashtray.FSG.NOM stood.FSG on table

In very limited contexts, LCA may occur in Russian, as observed by Crockett (1976); a verb may agree with the last conjunct of a preverbal conjoined noun phrase (a) when the conjoined nouns refer to a single entity (as in the English *my friend and colleague*), (b) when they are mass nouns or collective nouns, as in (449), and (c) when they are quantified by certain quantifiers, as in (450).

(449) *Ponjatno, što publikuemaja proza i poèzija popadaet v*
 clear that published.FSG.NOM prose.FSG.NOM and poetry.FSG.NOM falls.3SG into
kontekst “bol’sogo vremeni” literatury...
 context big.GEN time.GEN literature.GEN
 ‘It is clear that published prose and poetry falls into the context of the ‘big time’ of literature...’
 (RNC. A. Kraevskij. Žurnaly i poklonniki. 2003.)

- (450) ... *daby* *každyj pedagog* *i* *každyj rebėnok* *znal...*
 so.that every teacher.MSG.NOM and every child.MSG.NOM knew.PST.MSG
 ‘...so that every teacher and every child knew...’

(RNC. N. Granina, 2003. Ot zvonka do zvonka)

Additionally, LCA appears to be possible when *i* precedes the first noun phrase in a “conjunction doubling” construction, as in (452). This construction differs from ordinary conjunction in that the first nominal is in focus.⁴

- (452) *I* *Vasja,* *i* *Osja* *poedet* *s* *nami.*
 both Vasya.MSG.NOM and Osys.MSG.NOM come.FUT.3SG with us
 ‘Both Vasya and Osys will come with us.’ (Crockett, 1976, 254)

In this chapter, I focus only on the behavior of non-quantified count nouns that are not obviously conceived of as a single entity, and that lack an initial conjunction *i*.⁵ Because verbal agreement

⁴ All relevant attested examples of singular agreement in the context of the conjunction doubling construction in Crockett’s (1976) collection as well as those that I have found in the Russian National Corpus occur when the noun phrases share the same gender, as they do in (452). Example (451) is an exception, although it may not be an ideal example of conjunct agreement. The singular agreement may arise here because Moscow was a part of the Soviet Union rather than a separate location.

- (451) *I* *Moskva,* *i* *voobščė Sovetskij* *Sojuz* *mne očen’*
 both Moscow.FSG.NOM and in.general Soviet.MSG.NOM Union.MSG.NOM me.DAT very
ponravilsja.
 appealed.MSG
 ‘I very much liked both Moscow and the Soviet Union in general.’ (Crockett, 1976, 253)

⁵ Bošković (2010) claims that last conjunct agreement is acceptable in Russian in environments other than those just described, as in (453).

- (453) *Odna* *derevnja* *i* *odno* *selenie* *bylo*
 one.FSG.NOM village.FSG.NOM and one.NSG.NOM settlement.NSG.NOM was.PST.NSG
razrušeno.
 destroyed.PSV.NSG
 ‘One village and one settlement were destroyed.’ (Bošković, 2010)

My informants reject sentence (453) and sentences similar to it; my analysis in this chapter correspondingly predicts such examples to be ungrammatical.

with the last conjunct of a preverbal noun phrase is generally not acceptable, this adapted version of Bhatt & Walkow (2011) is inappropriate for Russian FCA constructions.

More broadly, linear analyses of conjunct agreement are too permissive to account for the distribution of FCA in Russian. In the next section, I outline two potential analyses of FCA in which the agreement pattern is derived via syntactic means instead; such analyses more appropriately reflect the syntactic nature of Russian FCA.

4.3 Syntactic approaches to FCA

Conjunct-sensitive agreement is a widespread linguistic phenomenon, occurring in many genetically and typologically distinct languages.⁶ Here, I introduce two types of syntactic approaches to conjunct-sensitive agreement that are found in the literature, and I adapt one of these approaches to account for the distribution of FCA in Russian. While current analyses of conjunct agreement are predominantly of the first type, I show in Section 4.4 that only the adapted version of the second approach is viable for Russian FCA.

The two families of syntactic approaches that have been proposed to account for conjunct sensitive agreement crosslinguistically differ from one another in their assumptions about the size of the conjoined phrases. Under the first type of analysis, two or more noun phrases are asymmetrically conjoined to form a larger noun phrase. Then, due to the interaction between the mechanism that underlies verbal agreement and asymmetricality of the conjoined noun phrases, the probe that determines agreement finds the ϕ -features of the highest, or leftmost, conjunct (Babyonyshev, 1996; Harves, 2003; Van Koppen, 2005; Bošković, 2010; Glushan, 2013). That is, first conjunct agreement arises because of the structural prominence of the first conjunct and the sensitivity of the agreement probe to its structural prominence. In analyses under this first umbrella, the locality conditions of

⁶ See McCloskey (1986) for Irish; Aoun et al. (1994, 1995) and Munn (1999) for dialects of Arabic; Sobin (1997, 2014) and Schütze (1999) for English; Munn (1999) for Brazilian Portuguese; Doron (2000) for Biblical Hebrew; Camacho (2003) for Spanish; Van Koppen (2005, 2012) for dialects of Dutch; Benmamoun et al. (2009) and Bhatt & Walkow (2011) for Hindi-Urdu; Bošković (2009, 2010) for Serbo-Croatian; and Benmamoun et al. (2009) for Tsez.

the Agree operation play a role—the probe responsible for agreement can target either the outer conjoined noun phrase or the highest (leftmost) inner noun phrase. In the first instance, the verb appears with plural agreement marking, and in the second instance, the verb shows agreement in accordance with the ϕ -features of the first noun phrase.^{7,8}

The second type of syntactic analysis involves the conjunction not of two or more noun phrases, but of two or more larger phrases, each of which contains a noun phrase. Then, some linguistic material in the non-initial conjunct is not pronounced, leaving only one noun phrase behind inside each non-initial conjunct (Aoun et al., 1994, 1995). The exact motivation for the nonpronunciation differs by analysis, but in all instances, the result of the nonpronunciation is a string that looks as if the noun phrases were immediately conjoined. While some implementations of this second type of approach to FCA have been criticized (e.g., Johannessen, 1996; Munn, 1999), and sometimes rightfully so, I argue that it must be revived (albeit in modified form) to account for FCA in Russian. In the rest of this section, I lay out specific implementations of these analyses in order to determine the predictions they make, both for varieties of Arabic—on which Aoun et al.’s analysis is based—as well as for Russian.

4.3.1 Nominal conjunction

The first set of analyses assumes a structure for conjoined noun phrases in which the first noun phrase is more structurally prominent than subsequent noun phrases. Such a structure reflects the asymmetry effects documented by Ross (1967), Collins (1988a,b), Munn (1993), and Zoerner (1995); for example, Ross argues that, in English, the second conjunct forms a unit with ‘and’, but the first conjunct does not form a unit with ‘and’, on the basis of contrasts like those in (454).

⁷ See also Soltan (2007) and Larson (2013) for approaches to FCA that rely on the timing of the Agree operation with respect to other syntactic processes (Late Merge and Labelling, respectively). Under their accounts, the non-initial conjuncts are not (fully) incorporated into the syntactic structure of the conjunction before the Agree operation takes place, which allows the agreement probe to target only the first conjunct.

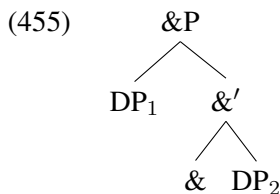
⁸ These approaches differ in whether agreement takes place entirely within the syntax (Bošković, 2009), or partially in the syntax and partially post-syntactically (Van Koppen, 2005; Bhatt & Walkow, 2011). See also Bobaljik (2008) for an approach to agreement as an entirely post-syntactic process.

- (454) a. John left, and he didn't even say goodbye.
 b. John left. And he didn't even say goodbye.
 c. * John left and. He didn't even say goodbye.

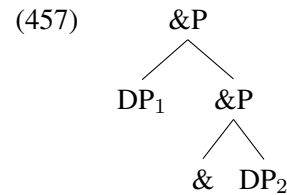
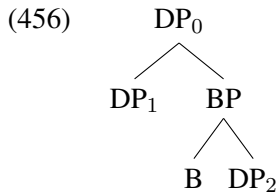
(Ross, 1967, 163)

Collins (1988a,b) and Munn (1999) argue that the first conjunct c-commands the second, though this proposal is contested (Progovac, 1997).

Many different structures have been proposed for conjunction; see Progovac (1998b,c) for a review. Researchers generally agree on three basic facts about conjunction crosslinguistically: (1) that conjunctions are functional heads that head a conjunction phrase, (2) that in VO languages, the conjunction head and the non-initial conjuncts form a unit to the exclusion of the first conjunct, and (3) that in VO languages, the first conjunct is structurally more prominent than the others. For some researchers, the first conjunct serves as a specifier of the conjunction head &, with the second conjunct serving as the complement, as illustrated in (455) (Munn, 1987; Grootveld, 1992; Johannessen, 1993; Zoerner, 1995). In such a structure, both conjuncts are arguments of the & head, and the & head forms a constituent with the second conjunct, represented by the bar-level.



Other researchers, such as Munn (1993), agree that first conjuncts are specifiers of the conjunction head, but argue that the non-initial conjunct(s) are adjoined to the first, as represented in (456). Munn's label for the adjunct, BP, stands for Boolean Phrase and is equivalent to &P; the conjunction head is labeled B and is equivalent to &. Kayne (1994) modifies Munn's proposal somewhat; while he agrees that conjunction involves adjunction, for him, the first conjunct is adjoined to the &P, which contains the non-initial conjunct(s), as in (457). In other words, he reverses which nominal is the adjunct and which is the target of adjunction.

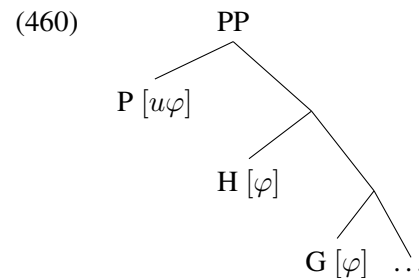
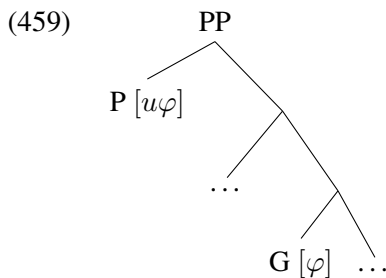


In this section, I assume for concreteness that the structure in (456) is appropriate for conjunction in Russian—the non-initial nominal(s) form a constituent with the conjunction head and this conjunction is adjoined to the first nominal. For the purposes of the analyses presented in this section, nothing hinges on this decision; all that is necessary for the analyses to go through is that the first conjunct, DP_1 , c-commands the non-initial conjunct(s), which is the case in all three potential structures. (But see Section 4.4.4, where I revisit the issue, arguing that (456) is indeed the appropriate structure for conjunction in Russian.) For clarity, I refer to the first conjunct as DP_1 and the non-initial conjuncts as DP_2 , DP_3 , and so on; following the majority of literature on conjunction, I label the conjunction head as $\&$ (instead of B) and its highest projection as $\&P$ (instead of BP). I refer to the entire conjoined noun phrase as DP_0 . Importantly, in all three potential structures, the highest node, DP_0 , dominates, but does not c-command, the first conjunct, DP_1 .

Under the assumption that noun phrases are immediately conjoined, analyses in this family (Babyonyshev, 1996; Harves, 2003; Van Koppen, 2005; Glushan, 2013) derive FCA as follows. The probe responsible for agreement searches its c-command domain for a goal. Asymmetric c-command determines locality for agreement (Chomsky, 2000, 2004), as in (458).

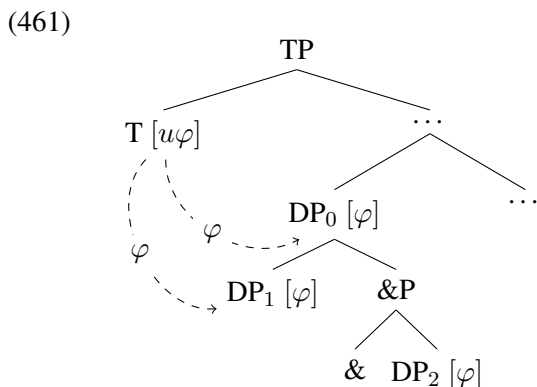
(458) A node G is a potential goal for Agree with a c-commanding probe P only if there is no node H such that P c-commands H , H asymmetrically c-commands G , and H has valued ϕ -features.

This definition can be schematized as in (459), representing a probe and goal with no intervener, and in (460), representing a probe whose closest goal is H . H serves as an intervener between P and G .



In order to apply this to FCA, we must also assume that DP_0 has ϕ -features that it has inherited from both DP_1 and DP_2 , and that its number feature is valued as plural.⁹

Under these assumptions, an agreement probe on T that c-commands DP_0 will have two accessible goals: DP_0 and DP_1 . DP_0 is an accessible goal because it is within T's c-command domain, it has valued ϕ -features that T needs, and it is not c-commanded by any other DP that bears ϕ -features. Crucially, DP_1 is also an accessible goal, for the same reasons: it is within T's c-command domain, it has valued ϕ -features that T needs, and it is not c-commanded by any other DP that bears ϕ -features—not even DP_0 . DP_0 does not serve as an intervener between T and DP_1 because DP_0 dominates, not c-commands, DP_1 . According to (458), this state of affairs indicates that DP_0 and DP_1 are potential goals for the probe on T. This analysis is illustrated in (461), where the dashed lines indicate the two accessible goals for the agreement probe on T.



⁹ Some authors assume that what I am calling DP_0 can inherit the plural number feature from the $\&$ head (Bošković, 2009, 2010); others argue that the $\&$ head does a computation on the features of DP_1 and DP_2 to get the resolved agreement features of DP_0 (Sauerland, 2008; Marušič et al., 2007). For my purposes, it does not matter how exactly the plural feature comes to be associated with DP_0 , only that it does so.

According to this formulation of the agreement operation, DP₀ and DP₁ are equidistant to T (Chomsky, 2000, 2001). Given that both DPs are equidistant to T, what determines whether the features of T are valued by DP₀ or by DP₁? The formulation above does not necessarily predict which features will be morphologically realized on T.

One way of answering this question is to assume that agreement consists of more than one step; for Van Koppen (2005), the probe establishes a relationship with *both* DP₀ and DP₁ in the narrow syntax, and then, at the level of morphology, one of the two agreement relations is spelled out as an agreement affix on the probe.¹⁰ Let us suppose that the features of either DP₀ or those of DP₁ could be spelled out on the probe (that is, suppose that morphology does not have a preference for which DP's features to spell out).¹¹ In the first possible scenario, the features of DP₀ are spelled out on the probe, and the verb comes to bear the plural agreement suffix. In the second possible scenario, the verb comes to bear agreement marking in accordance with DP₁'s ϕ -features; when DP₁ is singular, the verb will be singular.

Note that, given the structure in (461), the probe is never in the right structural configuration to agree with DP₂ or any subsequent conjunct. According to the locality conditions on the Agree operation, as formalized in (458), DP₁ counts as an intervener between the probe and DP₂, meaning that DP₂ is not a potential goal for agreement with the probe on T.¹² This correctly rules out agreement

¹⁰ Van Koppen's definition of equidistance is comparable to (458); for her, "equally local" and "more local" are defined as in (462) and (463), respectively.

(462) Y and Z are equally local iff (i) X c-commands both Y and Z, and (ii) the set of nodes that c-command Y is identical to the set of nodes that c-command Z.

(463) Y is more local to X than Z iff (i) X c-commands both Y and Z, and (ii) the set of nodes that c-command Y is a proper subset of the set of nodes that c-command Z.

¹¹ Van Koppen (2005) argues that morphology actually does have a preference for which DP's features to spell out—morphology prefers to spell out the agreement relation that results in the most specific agreement morphology on the probe. In Russian, this predicts that the features of DP₀ will always be spelled out, always resulting in plural agreement with conjoined noun phrases. This implementation of her analysis is completely consistent with the analysis I propose in this chapter: when the two nominative noun phrases are *immediately conjoined*, the verb must display plural agreement.

¹² Alternatively, both DP₀ and DP₁ are *more local* to T than DP₂, according to the locality conditions on the Agree operation as formalized in (463). Van Koppen's definition of locality correctly rules out agreement with any of the non-initial conjuncts.

with any of the non-initial conjuncts.

There have been several approaches to FCA in Russian in particular that make use of the asymmetric structure of conjunction and the equidistance of T to DP₀ and DP₁. For example, Babyonyshev (1996), Harves (2003), and Glushan (2013) argue that DP₀ and DP₁ are equidistant to the head responsible for verbal agreement, allowing the agreement probe to target either DP₀ or DP₁. This gives rise to the acceptability of either plural or singular agreement marking on the verb in sentences like (464), in which the nominative noun phrases are postverbal.

- (464) *V polnoč' pojavilis'/pojavilas' luna i odna zvezda.*
 at midnight appeared.PL/FSG moon.FSG.NOM and one.FSG.NOM star.FSG.NOM
 'At midnight the moon and one star appeared.'

T may agree with DP₀ or with DP₁, and, in either instance, the agreed-with DP may remain *in situ* in its postverbal position.

Babyonyshev (1996), Harves (2003), and Glushan (2013) are also able to explain why only plural agreement, but never singular agreement, is allowed when the noun phrases are preverbal, as in (465).

- (465) *Luna i odna zvezda pojavilis'/*pojavilas' v polnoč'.*
 moon.FSG.NOM and one.FSG.NOM star.FSG.NOM appeared.PL/FSG at midnight
 'The moon and one star appeared at midnight.'

According to their analyses, a noun phrase comes to precede the verb by moving to the specifier of TP. However, it may do so only if it has entered into an Agree relationship with T. In other words, while in principle T has the option of agreeing with either DP₀ or DP₁, there are consequences for either option. If it agrees with DP₀, resulting in plural agreement on the verb, then DP₀ can move to the specifier of TP, coming to linearly precede the verb. Alternatively, T may agree with DP₁ instead; however, when this happens, DP₁ cannot move to the specifier of TP. Babyonyshev (1996), Harves (2003), and Glushan (2013) attribute this restriction to the Coordinate Structure Constraint (Ross, 1967).

Following Grosu (1973) and subsequent work, I divide the Coordinate Structure Constraint, reproduced in (466), into two clauses: the first clause prohibits the movement of an entire conjunct out of a coordinate structure, and the second clause prohibits the movement of an element within a conjunct out of that conjunct (that is, it bans sub-extraction).¹³

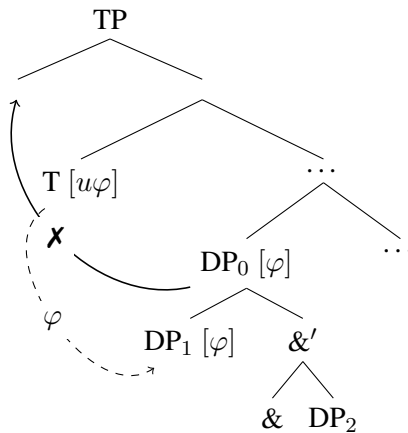
- (466) In a coordinate structure,
- a. no conjunct may be moved out of the coordinate structure,
 - b. nor may any element contained in a conjunct be moved out of that conjunct.

The first clause of the Coordinate Structure Constraint prevents DP₁ from moving to the specifier of TP, creating a discontinuous constituent. In this scenario, DP₀ cannot move to the specifier of TP because it has not agreed with T. Since neither DP₁ nor DP₀ can move to the specifier of TP, the noun phrases must remain in their *in situ* postverbal positions. In other words, when T agrees with DP₁, the noun phrases will always appear postverbally, ruling out singular agreement like that in (465). This analysis, shared by Babyonyshev (1996), Harves (2003), and Glushan (2013), is illustrated in (467).¹⁴

¹³ I argue in Section 4.4.4, following Grosu (1973), that the second clause of the Coordinate Structure Constraint is weaker than the first, in that it can be violated under circumstances in which the first clause cannot be. The analyses of Babyonyshev (1996), Harves (2003), and Glushan (2013) rely only on the first clause of the Coordinate Structure Constraint.

¹⁴ I have assumed here, for concreteness, that the agreement operation derivationally precedes the movement of the agreement-triggering noun phrase to the specifier of TP. Note, however, that the opposite assumption also correctly rules out conjunct-sensitive agreement with conjoined noun phrases that occupy specifier of TP. Suppose we assume that DP₀ moves to the specifier of TP, and that T may agree with an element that c-commands it (à la Baker (2008)). In this instance, only DP₀, not DP₁ or DP₂, c-commands T, so plural agreement always results.

(467)



This analysis correctly predicts that preverbal conjoined noun phrases always trigger plural agreement, while postverbal conjoined noun phrases can trigger either plural or singular agreement.

Babyonyshev's and Glushan's analyses share a common way of accounting for another restriction on the distribution of FCA in Russian: that FCA occurs only when the agreement-triggering noun phrases are internal arguments, as argued in Chapter 3 and illustrated in (468) and (469).

(468) *Pri perezde razbilsja stakan i kuvšin.*
 during moving broke.MSG glass.MSG.NOM and pitcher.MSG.NOM
 'During the move a glass and a jug broke.'

(469) * *Ob ètom často govorit Andrej i Kolja.*
 about this often talk.3SG Andrej.MSG and Kolya.MSG
 'Andrey and Kolya talk often about this.' (Crockett, 1976, 223)

To my knowledge, Russian is the only language in which FCA has been proposed as a diagnostic of unaccusativity; further research is needed to determine whether FCA in other languages is sensitive to the unaccusativity status of the verb.

Babyonyshev (1996) and Glushan (2013) deal with this restriction in a similar way, and start by assuming that there is a difference in the potential syntactic positions of arguments of unergative verbs and those of unaccusative verbs. Babyonyshev (1996) proposes that the arguments of unaccusative verbs, having been generated as the complements of V, may remain *in situ* in object

position, whereas the arguments of unergative and transitive verbs, having been generated in specifier of *vP*, must move to the specifier of TP. On this account, the bold noun phrase in (470) remains *in situ* as a complement to the verb, but the bold noun phrase in (471) has moved through the specifier of TP to be right-adjoined to *vP*.¹⁵

- (470) *Zdes'* [*rastut* ***griby***]_{*VP/vP*}.
 here grow.3PL mushrooms.MPL.NOM
 'Mushrooms grow here.'
- (471) *V kvartire* *t_i* [*t_i smejalsja*]_{*vP*} ***Vanja***_{*i*}.
 in apartment laughed.PST.MSG Vanya.MSG.NOM
 'Vanya laughed in the apartment.'

Because the sole argument of the unergative verb must move to the specifier of TP, it must have agreed in full with T; therefore, when the postverbal noun phrase consists of conjoined noun phrases, plural agreement always results. By contrast, when the argument of an unaccusative verb remains low, T may agree with DP₁, potentially resulting in singular agreement, or with DP₀, resulting in plural agreement.

Glushan's (2013) analysis is similar to Babyonyshev's, but with additional consideration for the animacy of the arguments. As discussed in Sections 3.2 and 3.3, Glushan proposes that animate arguments and inanimate arguments may occupy different structural positions within the verb phrase—animate arguments that are mentally aware of the event described by the verb must occupy a higher syntactic position, such as the specifier of *vP/AspP/AppIP*, while inanimate arguments may occupy a lower syntactic position, such as the sister to V. For Glushan, the height difference between animates and inanimates derives the difference in their ability to trigger FCA because animates, being higher, may escape the *vP/AspP/AppIP* phase, move to the specifier of TP, and from there must

¹⁵ Babyonyshev (1996) shows that the sole argument of an unergative verb may be postverbal only if it is focused, potentially indicating that it is not *in situ*. Slioussar (2011) also concludes that internal nominative arguments need not move to the specifier of TP, but that external arguments must do so, based on evidence from the anaphoric binding and scope possibilities of postverbal external *versus* postverbal internal nominative arguments. By contrast, I argue in Section 2.5 that postverbal nominative arguments of both unaccusative and unergative/transitive verbs move, albeit covertly, to the specifier of TP.

enter into Spec, Head agreement with T.

Harves (2003) derives the distributional constraints on FCA in a different way. She hypothesizes that FCA, as a type of partial or defective agreement, can only surface in the presence of a “ ϕ -incomplete” *v*P phase; unaccusatives, but not unergatives or transitives, constitute such ϕ -incomplete phases.¹⁶

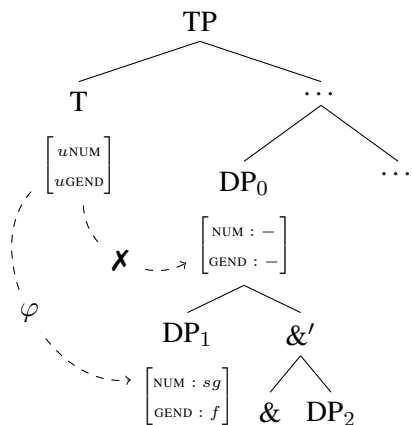
In order for their analyses to generate the right predictions, Babyonyshev (1996), Harves (2003), and Glushan (2013) must assume that external arguments in Russian must move to the specifier of TP but that internal arguments can remain *in situ*. This difference allows them to derive the fact that internal arguments may trigger FCA while external arguments may not. However, as I argued in Section 2.5, both internal and external nominative arguments have the ability to move to the specifier of TP, potentially covertly. If this is actually a requirement—and all nominative arguments *must* move to the specifier of TP (perhaps covertly)—then the accounts described above would predict that plural agreement should always result when two noun phrases are conjoined, regardless of whether they are initially introduced as internal or external arguments. On such an account, no matter where the DP₀ argument is initially introduced, it must eventually move to the specifier of TP, precluding agreement between T and DP₁. This means that the analyses described above would have no way of maintaining the distinction between internal and external arguments with respect to triggering FCA; the conjunction of *any* nominative arguments would result in plural agreement. I return to this question in Section 4.4.4, where I argue that that this is indeed what happens—when two noun phrases are immediately conjoined to form a larger noun phrase constituent, plural agreement is obligatory because the movement of DP₀ to the specifier of TP is obligatory. Under my analysis, FCA does not appear in the context of immediately conjoined noun phrases; see Section

¹⁶ One potential problem for Harves’ analysis is that all other instances of defective agreement that she analyzes result in the verb being marked with default agreement (third person, neuter, singular). In the case of FCA, however, the verb can be marked with non-default agreement features, such as masculine or feminine gender. While Harves’ analysis predicts which contexts should allow some kind of defective agreement—such as genitive of negation constructions and sentences in which the sole argument of an unaccusative appears as the complement to distributive *po*—it does not predict whether that defective agreement will be default agreement (third person, neuter, singular) or partial agreement (FCA). And ultimately, it is not clear why a verb’s ability to project an external argument requires it to have ϕ -complete *v*.

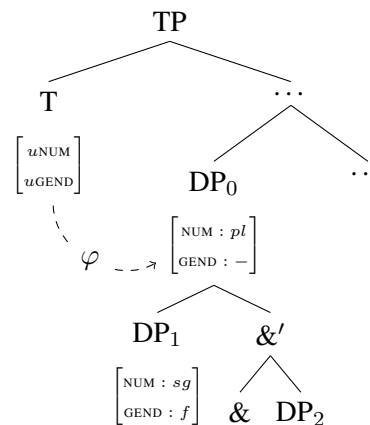
4.4 for the implementation of the analysis.

The account of FCA developed in Bošković (2010) differs from that of Babyonyshev (1996), Harves (2003), and Glushan (2013), although it shares with them the assumption that the two nominative noun phrases are immediately conjoined into a larger constituent. Bošković first develops an account of conjunct-sensitive agreement in Serbo-Croatian, which differs empirically from FCA in Russian; Serbo-Croatian FCA involves conjoined *plural* noun phrases with which the verb agrees in gender, and it allows last conjunct agreement. In order to make the analysis of FCA in Russian minimally different from that of FCA in Serbo-Croatian, Bošković must assume that the conjunction head & in Russian is only optionally specified for number, and therefore that DP₀ is only optionally specified for number. When the agreement probe on T targets a DP₀ that is not specified for number, it will not find the features it requires; instead, the probe will have its features valued by DP₁, which does bear a number feature, as illustrated in (472). Alternatively, if the & head is specified for number, T agrees with DP₀ in number, resulting in plural verbal agreement, as in (473).

(472)



(473)



Bošković's analysis predicts that LCA should be available in Russian; that is, the verb should be able to agree with the rightmost conjunct when the nominative noun phrases are preverbal. Under Bošković's account, the agreement probe matches DP₀ for number and DP₁ for gender. The head bearing the agreement probe has an EPP feature, so some phrase must move to its specifier. However, because the probe has matched features on both DP₀ and DP₁, potentially, either phrase

could move.¹⁷ Because of this ambiguity, the valuation of the probe fails. Then, the (plural) number feature on the conjunction head & is deleted, as is the gender feature on DP₁. The agreement probe searches again for a DP with ϕ -features (undergoing Secondary Agree), and matches with DP₂. Finally, DP₀ moves to the specifier of the head responsible for agreement. This derives the LCA pattern.

However, as noted in Section 4.2, the Russian speakers I consulted with do not accept LCA outside of a few exceptions. Russian is not alone in this respect; FCA is a more common pattern than LCA crosslinguistically. In Arabic and Portuguese, for example, closest conjunct agreement is only possible when the subject is postverbal (Van Oirsouw, 1987; Benmamoun, 1992; Munn, 1993; Aoun et al., 1994; Munn, 1999). Additionally, Camacho (1997, 95) makes a generalization that holds for conjunct agreement across languages: he proposes that, if a language has variable word orders, agreement with one conjunct will appear in non-canonical word order; this means that, for Russian, FCA is a more expected pattern than LCA is. Because the speakers I consulted with do not accept LCA constructions, the analysis that I propose differs significantly from Bošković's.

All of these analyses of FCA in Russian—and most analyses of FCA in other languages as well—assume that it arises in the context of two coordinated noun phrases. They assume an asymmetrical structure of DP₀ and relate that structure to the locality conditions of the Agree operation—the probe responsible for agreement can, in one way or another, target DP₁ because it is high in the structure, deriving FCA. Such analyses successfully account for FCA in many languages; however, other analytical options are available. In the next section, I present an alternative approach to FCA that assumes a different underlying structure of the conjoined phrase.

4.3.2 Clausal conjunction

Under an alternative approach to FCA, the relevant noun phrases are not immediately conjoined, but instead the conjunction occurs at a higher level. Each relevant noun phrase is embedded inside

¹⁷ In order for Bošković's analysis to work, he must say that extraction of the first conjunct is possible—that the first clause of the Coordinate Structure Constraint (466), arguably the stronger of the two clauses (Grosu, 1973), can be violated in Russian.

a full clause. The clauses are conjoined, and some material within the conjuncts is not pronounced. This type of analysis was proposed by Aoun et al. (1994, 1995) for varieties of Arabic. For Aoun et al. (1994), the first noun phrase in an FCA construction is the subject of the first clause, and the second noun phrase is the subject of the second clause. Thus, a sentence like (474) underlyingly has the structure represented in (475), and only one instance of the verb is ultimately pronounced.

(474) Lebanese Arabic
raah Kariim w Marwaan.
 leave.PST.3MSG Kareem and Marwan
 ‘Kareem and Marwan left.’ (Aoun et al., 1994)

(475) [*raah Kariim*]_{IP} w [*raah Marwaan*]_{IP}.
 leave.PST.3MSG Kareem and leave.PST.3MSG Marwan
 ‘Kareem left and Marwan left.’

Aoun et al. provide two potential accounts of why the verb is pronounced only once. The first option is that the verbs in both conjuncts have undergone Across-the-Board movement to a position outside of their clauses, as illustrated in (476). Alternatively, only the verb inside the first clause moves outside of the clause, with the second clause being headed by a silent verb that is anaphoric to the first, as represented in (477).

(476) *raah_i [t_i Kariim]_{IP} w [t_i Marwaan]_{IP}.*
 leave.PST.3MSG Kareem and Marwan

(477) *raah_i [t_i Kariim]_{IP} w [∅_i Marwaan]_{IP}.*
 leave.PST.3MSG Kareem and Marwan

Any constituents that appear to the right of the noun phrases are analyzed as having undergone right-node raising, adjoining to the right of the clause, as represented in (478).

(478) [*Nʕas_i [Kariim t_i]_{IP} w [Marwaan t_i]_{IP}]_{IP} *fə-l-biit_i.*
 sleep.MSG Kareem and Marwaan in-the-room
 ‘Kareem and Marwaan slept in the bedroom.’ (Aoun et al., 1994)*

Under this analysis of FCA, Aoun et al. reason that, since each noun phrase is the subject of its own clause, there is no nominal constituent that is plural—meaning that the noun phrases do not add up to a plurality. Therefore, when the verb displays FCA, we would not expect the two noun phrases to license other elements in the sentence that require a plural. For example, Lebanese Arabic *sawa* ‘together’ presupposes the plurality of the noun it modifies. If the two nouns involved in an FCA construction are immediately conjoined, then we would expect their referents to add up to a plurality and to therefore satisfy the presupposition of the modifier. If instead the two noun phrases are not immediately conjoined with one another, then that presupposition will not be satisfied and the sentence should be unacceptable.

FCA turns out to be unacceptable in Lebanese Arabic sentences that include *sawa* ‘together’, as in (479), while plural agreement on the verb is acceptable in such sentences.

- (479) *Raaħo/*raaħ Kariim w Marwaan sawa.*
 left.PL/3MSG Kareem and Marwaan together
 ‘Kareem and Marwaan left together.’ (Aoun et al., 1994)

Under this analysis, if two noun phrases are immediately conjoined, the plural form of the verb is realized. The two noun phrases together add up to a plurality, which satisfies the presupposition of *sawa* ‘together’. This means that *sawa* ‘together’ is licit when the verb displays plural agreement.

By contrast, under this analysis, FCA occurs when two full clauses, rather than two noun phrases, are conjoined. Each clause contains an instance of the verb and the verb’s argument. Let us suppose that both clauses contain *sawa* ‘together’, as in (480); on Aoun et al.’s analysis, the two instances of *sawa* should undergo right node raising to a position outside of the conjoined clauses.

- (480) * [*Raaħ_i [t_i Kariim t_j] w [t_i Marwaan t_j]] sawa_j.*
 left.3MSG Kareem and Marwaan together

The structure represented in (480) is ruled out because neither individual conjunct contains a plural entity that may be modified by *sawa*; therefore, *sawa* is not licensed inside either of the individual

conjuncts. Aoun et al. take the unacceptability of such sentences as evidence that FCA occurs as a result of the conjunction of two clauses.

Other elements in varieties of Arabic are similarly sensitive to the plurality of the nouns they modify or are predicated of. For example, the Lebanese Arabic verb *ltaʔa* ‘meet’ typically has a plural subject. When it has a singular subject, it must be used with a prepositional phrase headed by *bi* ‘with’, as in (481). Without the prepositional phrase, a singular subject is unacceptable, as in (482).

(481) *Kariim ltaʔa bi Marwaan.*
 Kareem met.3MSG with Marwaan
 ‘Kareem met with Marwan.’ (Aoun et al., 1994)

(482) **Kariim ltaʔa.*
 Kareem met.3MSG
 (intended) ‘Kareem met.’ (Aoun et al., 1994)

When there is no such prepositional phrase and the subject consists of two apparently conjoined singular noun phrases, the verb must appear with plural agreement, as in (483); that is, FCA is not allowed.

(483) *Ltaʔo/*ltaʔa Kariim w Marwaan.*
 met.PL/3MSG Kareem and Marwaan
 ‘Kareem and Marwaan met.’ (Aoun et al., 1994)

Aoun et al. (1994) argue that unacceptability of FCA with predicates like *ltaʔa* ‘meet’ follows from the clausal-conjunction analysis. Under their analysis, FCA can only appear when there are two clauses, each containing an instance of the verb and its subject. The two clauses are conjoined and the verbs raise leftward via Across-the-Board movement, as in (484).

(484) **Ltaʔa_i [t_i Kariim] w [t_i Marwaan].*
 met.3MSG Kareem and Marwan
 (intended) ‘Kareem and Marwan met.’ (Aoun et al., 1994)

In such instances, the requirement that the subject of *ltaʔa* ‘meet’ be plural is not met in either conjunct. The individual conjuncts are not licensed, so the sentence is unacceptable.

Finally, Aoun et al. show that pronominal reflexives and reciprocals that require plural antecedents are incompatible with FCA. For example, the Lebanese Arabic reciprocal *baʕḍun* ‘each other’ can appear only when the verb shows plural agreement, as it does in (485), cf. (486).

(485) *Bihibbo Kariim w Marwaan baʕḍun.*
 love.PL Kareem and Marwaan each.other
 ‘Kareem and Marwaan love each other.’ (Aoun et al., 1994)

(486) **Bihibb Kariim w Marwaan baʕḍun.*
 love.SG Kareem and Marwaan each.other
 intended: ‘Kareem and Marwaan love each other.’ (Aoun et al., 1994)

When noun phrases are immediately conjoined and form a constituent, then there is a plural antecedent for the reciprocal, resulting in the acceptability of (485). By contrast, if the two noun phrases are not immediately conjoined, as in FCA constructions, then there is no plural antecedent to which the reciprocal can refer, resulting in the unacceptability of (486). Aoun et al. therefore conclude that FCA constructions in the selected varieties of Arabic are the result of clausal coordination.

Data from other languages complicates the picture. Johannessen (1996) argues that we cannot generalize Aoun et al.’s analysis to every language in which FCA is found; instead, FCA in some languages must involve coordination at the level of the noun phrase. She shows that FCA constructions in Czech and German do not have the same distribution as in Arabic. In these languages, the apparently conjoined noun phrases are able to be interpreted as a plural entity, according to the same sorts of diagnostics as used for varieties of Arabic, suggesting that the noun phrases are indeed immediately coordinated. In Czech, for example, the meaning ‘both’ can be conveyed by the use of the “strong” ‘and’, *i*; even though the subject is interpreted as a plurality, the verb can display FCA, as shown in (487).

- (487) *Půjdu tam já i ty.*
 will.go.1SG there I.1SG.NOM and you.2SG.NOM
 ‘Both you and I will go.’ (Johannessen, 1996)

Additionally, a prepositional phrase headed by *po* ‘at the rate of’ is able to distribute over both conjuncts in FCA constructions, as in (488).

- (488) *Po jednom jablku snědl Jan a Petr.*
 at.the.rate.of one.LOC apple.LOC ate.3SG John.NOM and Peter.NOM
 ‘John and Peter ate an apple each.’ (Johannessen, 1996)

This suggests that the two noun phrases are immediately conjoined in Czech, even in FCA constructions. Similar facts obtain in German. On the basis of these examples, Johannessen concludes that FCA need not always involve clausal coordination.

Munn (1999) agrees that FCA constructions cannot be the result of clausal coordination in every language, and goes on to argue that they are not the result of clausal coordination in Moroccan and Lebanese Arabic, either. He first argues that the evidence used by Aoun et al.—evidence from *sawa* ‘together’, *ltaʔa* ‘meet’, and *baʔdun* ‘each other’—is not convincing, due to syntactic restrictions of those elements. With this evidence set aside, Munn then shows that FCA is possible in Arabic even when clausal coordination is impossible. He therefore concludes that FCA constructions in these varieties of Arabic are the result of noun phrase coordination. Because understanding Munn’s objections is crucial to understanding my defense of my analysis of FCA, I reproduce his arguments in detail below.

Munn begins his reply to Aoun et al. by pointing out the difference between semantic and syntactic plurality—collective nouns like *group* denote more than one entity but are formally singular, whereas *pluralia tantum* nouns like *scissors* denote a single entity but are formally plural. An English verb like *meet*, when used intransitively, requires a subject that is semantically plural, but is indifferent to its syntactic plurality; the examples in (489) illustrate this requirement. By contrast, *be similar* requires that its subject be both semantically and syntactically plural, as shown in (490).

- (489) a. * The man is meeting on Wednesday.
 b. The men are meeting on Wednesday.
 c. The group is meeting on Wednesday.
- (490) a. * The man is similar.
 b. The men are similar.
 c. * The group is similar.

There are therefore two possible reasons why Lebanese Arabic *sawa* ‘together’, *ltaʔa* ‘meet’, and *baʕḏun* ‘each other’ are incompatible with FCA: it may be the case that they require only semantic plurality, like *meet*, or it may be the case that they may require both semantic and syntactic plurality, like *be similar*. If the former is true, then Aoun et al.’s argument goes through; the noun phrases do not form a single constituent and therefore do not add up to a semantic plurality, resulting in the ungrammaticality of those elements in FCA constructions.

If the latter is true, however, then the examples with *sawa* ‘together’, *ltaʔa* ‘meet’, and *baʕḏun* ‘each other’ do not constitute evidence in favor of the clausal coordination hypothesis. These elements would have a formal licensing requirement that requires a syntactic plural, but since there is no such element in the FCA constructions exemplified above, their licensing requirement would not be met. No matter whether the conjunction occurs at the level of the clause or at the level of the noun phrase, the lack of a syntactic plural would prevent them from appearing in such FCA constructions.

Munn then shows that some of these elements do require a syntactic plural. This is shown in (491) and (492) for *sawa* ‘together’ and (493) for *ltaʔa* ‘meet’.

- (491) *El-rijal raabarhu sawa.*
 the-men.MPL left.MPL together
 ‘The men left together.’

(Munn, 1999)

- (492) * *El-jamaʔa raahet sawa.*
 the-group.FSG left.FSG together

(Munn, 1999)

- (493) *El-jamaʔa ltaʔo/*ltaʔa.*
 the-group.SG met.PL/SG
 ‘The group met.’

(Munn, 1999)

These examples show that *sawa* ‘together’ and *ltaʔa* ‘meet’ require syntactic plurality, which is not available in the FCA constructions shown above. This means that the incompatibility of *sawa* ‘together’ and *ltaʔa* ‘meet’ with FCA does not constitute evidence for the clausal coordination analysis of FCA.

With Aoun et al.’s evidence for clausal coordination off the table, Munn argues in favor of the noun phrase coordination analysis of FCA. The two analyses make different predictions about sentences in which the first noun phrase is plural and the second is singular. Under a clausal coordination analysis, such a sentence should not be able to co-occur with an element like *sawa* ‘together’ or *ltaʔa* ‘meet’, because the number-sensitive element would not be licensed in the second conjunct. Under a noun phrase coordination analysis, the number-sensitive element is predicted to be licensed; it requires a syntactic plural, and it has one. In such sentences, FCA and number-sensitive elements can indeed co-occur, as in (494) and (495) in Moroccan Arabic.

- (494) *mšito ntuma w ana məžmuʕin*
 left.2PL you.2PL and I together
 ‘You_{plural} and I left together.’

(Munn, 1999)

- (495) *ltaqitu ntuma w ana qəddam l-žamiʕa*
 met.2PL you.2PL and I in.front.of the-university
 ‘You_{plural} and I met in front of the university.’

(Munn, 1999)

The clausal coordination approach to FCA predicts that (494) and (495) should be ungrammatical, contrary to observation.

The two approaches also make different predictions about elements that are acceptable with semantically plural, syntactically singular noun phrases like ‘group’. Moroccan Arabic *nəfs* ‘same’ must co-occur with a semantically plural noun, but that noun may be syntactically singular, as in (496). FCA is possible with such elements, as shown in (497).

(496) *Qrat ž-žmaʕa nəfs lə-ktab.*
 read.FSG the-group.FSG same the-book
 ‘The group read the same book.’ (Munn, 1999)

(497) *Qrat ʕalys w ʕomar nəfa lə-ktab.*
 read.FSG Alia.FSG and Omar.MSG same the-book
 ‘Alia and Omar read the same book.’ (Munn, 1999)

Under a clausal coordination analysis, the relevant noun phrases do not add up to a semantic plurality and therefore should not license *nəfs* ‘same’. It is therefore better to consider sentence (497) as involving two immediately conjoined noun phrases; the noun phrases together form a semantic plural and license *nəfs* ‘same’.

Finally, Munn argues that coordination in FCA constructions cannot be clausal because a quantified nominal in the first conjunct can bind a pronoun in the second conjunct. An example from Moroccan Arabic is shown in (498); Lebanese Arabic shows the same pattern.

(498) *Mšat kull mra w xu-ha.*
 left.FSG each woman and brother-her
 ‘Each woman and her brother left.’ (Munn, 1999)

In order for the bound pronoun to be interpreted as coreferential with the quantified nominal, the two of them must share the same clause at the level of quantifier/variable interpretation. The acceptability of the bound pronoun in (498) indicates that the two conjuncts are in the same clause, even while FCA is possible. These facts together show that the nominal coordination analysis of FCA is preferable to the clausal coordination analysis for varieties of Arabic.

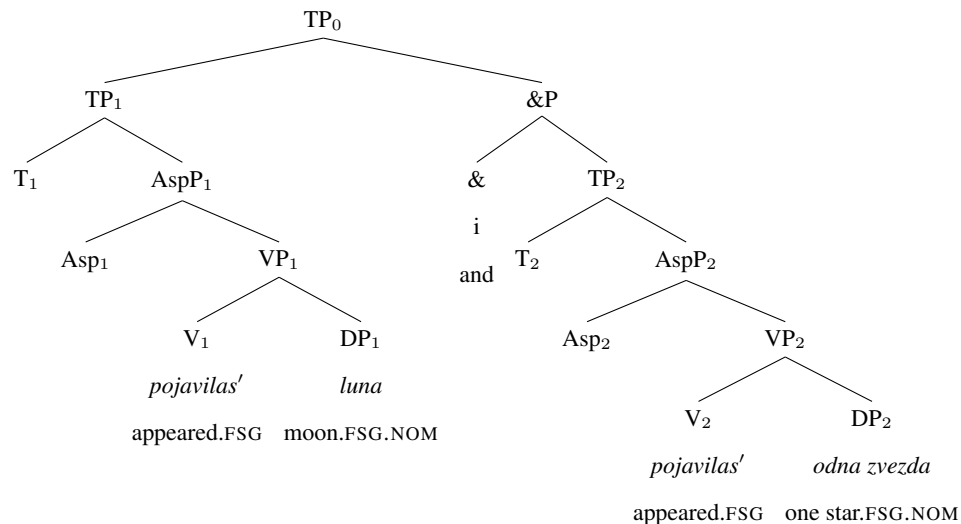
4.4 The proposal: Russian FCA involves VP-level coordination

I find Johannessen's (1996) claim that FCA involves coordination at the level of the noun phrase in at least some languages to be convincing; see Section 4.6 for a discussion. I also agree with Munn (1999) that the Arabic facts are most consistent with a nominal coordination analysis of FCA. This does not mean, however, that FCA can *never* involve coordination of elements larger than noun phrases. In Section 4.4.1, I argue that FCA in Russian does not result from the coordination of TPs. Next, in Section 4.4.2, I introduce the basic hypothesis that Russian FCA is the result of conjunction at the level of the verb phrase, and Section 4.4.3 presents arguments in favor of the analysis. Section 4.4.4 delves into further detail, arguing that covert movement (of the kind discussed in Section 2.5) is a key property of the FCA construction in Russian; this part of the proposal has implications for the EPP in Russian, the structure of coordination, and the Coordinate Structure Constraint.

4.4.1 Russian FCA is not the result of TP-level coordination

Unlike Aoun et al.'s (1994) analysis of varieties of Arabic, I do not argue that FCA results from clausal, or TP-level, coordination. Under such a hypothesis, the underlying structure of FCA constructions would be as represented in (499).

(499)



When taken together with the claim defended in Section 2.2.2.3 that the Russian verb moves to Asp—and no higher—this hypothesis fails to generate FCA constructions.

As discussed in Section 2.2.2.3, there is evidence that the Russian verb does not move as high as T. For example, Russian adverbs usually precede their verbs, as in (500). Rather than moving to T, over the adverb, the verb remains in a lower position.

- (500) *Ivan často celuet (??často) Mašu.*
 Ivan.MSG.NOM often kisses.3SG often Masha.FSG.ACC
 ‘Ivan often kisses Masha.’ (Bailyn, 1995, 57)

However, evidence suggests that the verb does move to a position above V. Bailyn (1995) analyzes sentences like (501) as follows. Two infinitival verbs originate in their respective VPs, but they then move to some position outside of the conjoined phrase via Across-the-Board movement. If we assume that the tensed auxiliary is at least as low as T, then we know that the infinitival verb must be somewhere between V and T.

- (501) *Petja budet klast' [t_i knigi na stol segodnja]_{VP} i [t_i
 Petya.MSG.NOM will.3SG put.INF books.FPL.ACC on table today and
 plastinki na stul zavtra]_{VP}.
 records.FPL.ACC on chair tomorrow
 ‘Petya will put books on the table today and records on the chair tomorrow.’
 (adapted from Bailyn, 1995, 49)*

It seems likely that this position is Asp, an aspectual head that is said to host a class of aspectual verbal prefixes in Russian (Svenonius, 2004); the verb undergoes head movement from V to *v* to Asp (Fowler, 1994; Babko-Malaya, 2003; Gribanova, 2013).

Assuming that this is the case, then TP coordination would necessarily result in the pronunciation of two instances of the verb, as in (502). This sentence is grammatical, but it is not an instance of FCA.

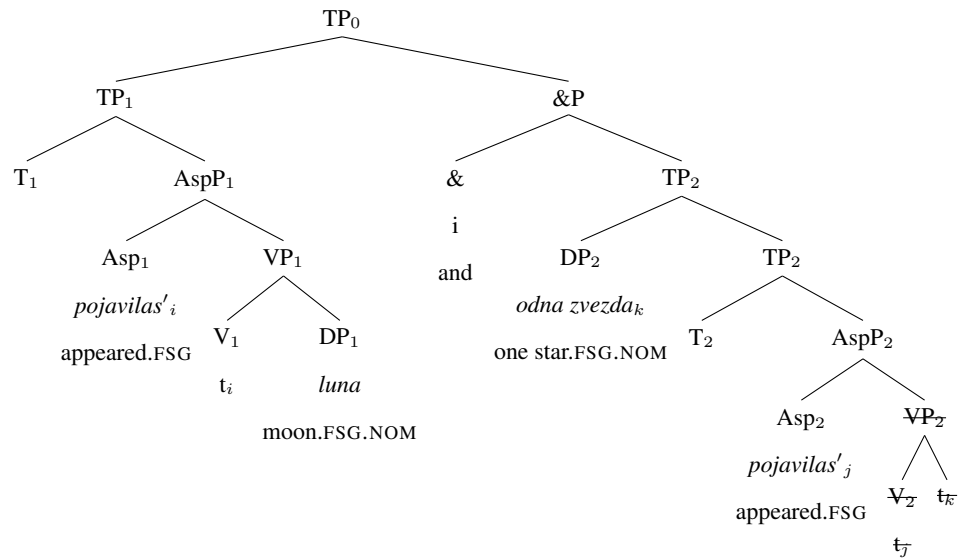
- (502) *V polnoč' pojavilas' luna i pojavilas' odna zvezda.*
 at midnight appeared.FSG moon.FSG.NOM and appeared.FSG one star.FSG.NOM
 'At midnight the moon appeared and one star appeared.'

Assuming that the underlying structure of (502) is as represented in (499), with two TPs being conjoined, each verb sits in its corresponding Asp. The verbs do not move to T, nor do they move out of their respective TPs via Across-the-Board movement to a higher position outside of the conjoined TP. Given what we know about Russian clause structure, then, TP-level coordination cannot give rise to the FCA construction.

There are, however, two ways to try to save this analysis; that is, if we want to preserve the idea that FCA is the result of TP-level coordination, there are two ways to ensure that only one verb is pronounced. First, we could assume that FCA is the result of constituent ellipsis at some level—either ellipsis of the verb phrase or ellipsis of the aspectual phrase. Second, we could assume that FCA is the result of gapping, another form of ellipsis which canonically leaves behind a remnant of non-elided material in the affected conjunct. In what follows, I explore these two possible ways to save the TP-coordination analysis, and I show that neither is satisfactory.

Let us first consider the possibility that FCA is the result of ellipsis of the verb phrase. Suppose that two TPs are coordinated, and that DP₂ moves to the specifier of TP₂; suppose also that VP₂ then undergoes verb phrase ellipsis, as illustrated in (503). The elided material is indicated by strike-through text in the tree.

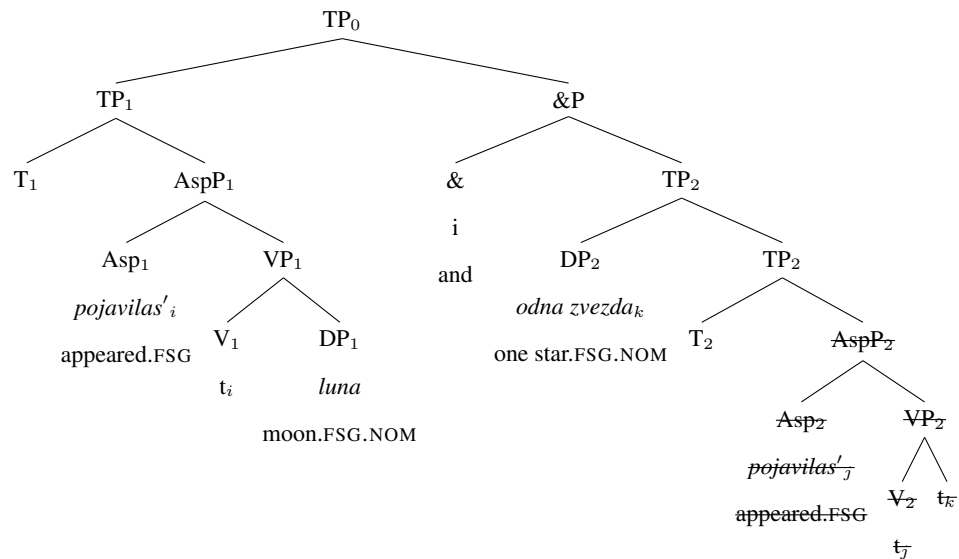
(503)



This analysis would not work to derive FCA. The verb in V_2 would have moved to Asp_2 , where it would be pronounced, resulting in the same word order as (502); that is, there would be two overt instances of the verb. Again, while this word order is grammatical, it would not be an instance of FCA.

Alternatively, we could suppose that the entire aspectual phrase $AspP_2$ is elided, as illustrated in (504).

(504)



This option would derive the correct word order and agreement pattern seen in FCA constructions; however, it is not consistent with an independently-known restriction on ellipsis in Russian. In an ellipsis construction, if the source clause contains a finite verb and the target clause underlyingly contains an auxiliary plus an infinitive verb, as in (505), the infinitive verb cannot be targeted for non-pronunciation; compare to (506), in which the source clause and the target clause each contain an auxiliary and an infinitive.

(505) * *Vanja zanimaetsja, a Saša ne budet [zanimat'sja].*

Vanya.MSG.NOM studies.3SG but Sasha.MSG.NOM NEG will study.INF

intended: 'Vanya is studying, but Sasha won't.'

(506) *Vanja budet zanimat'sja, a Saša ne budet [zanimat'sja].*

Vanya.MSG.NOM will study.INF but Sasha.MSG.NOM NEG will study.INF

'Vanya will study, but Sasha won't.'

This restriction holds even when the nominative argument of the source clause appears postverbally, as in (507).

(507) * *Pojavilas' Katja, i Vanja budet [pojavljat'sja].*

appeared.FSG Katya.FSG.NOM and Vanya.MS.NOMG will.3SG appear.INF

intended: 'Katya appeared, and Vanya will.'

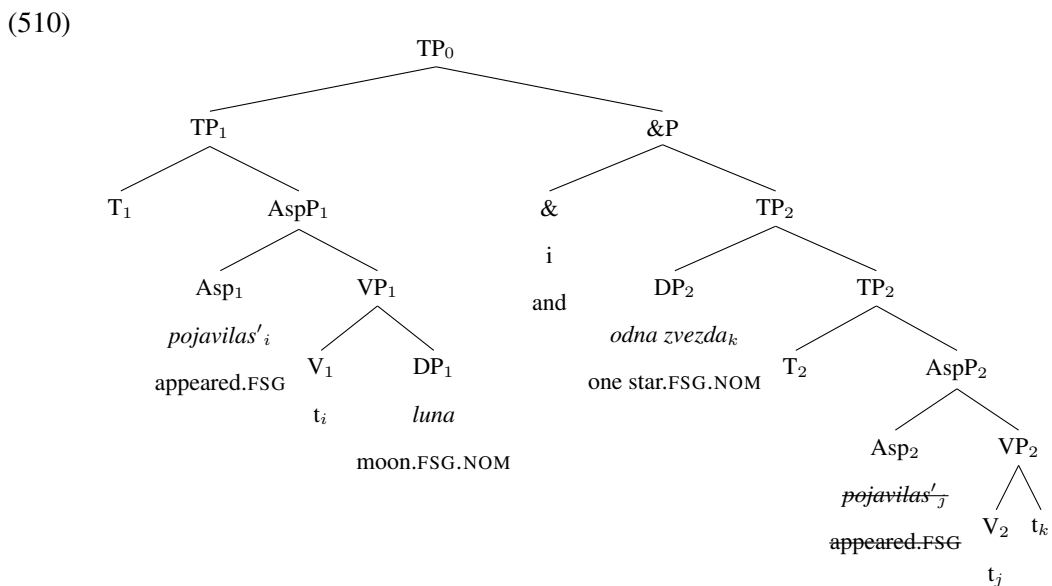
If, as is commonly assumed, the Russian auxiliary sits in T, then the structure required for (507) parallels that of (504). This suggests that the representation in (504) is illicit: the aspectual phrase AspP₂ in (504) could not be targeted for non-pronunciation. In turn, this means that ellipsis of the second AspP is an unattractive option for deriving FCA.

As a final option, we could try to save the hypothesis that FCA is derived via TP-level coordination by claiming that gapping (Ross, 1970), similar to the English example in (508) or the Russian example in (509), is responsible for FCA.

(508) John read the book and Mary ___ the magazine.

- (509) *Yaša ne uvidel Mašu, a Saša —*
 Yasha.MSG.NOM NEG saw.MSG Masha.FSG.ACC and Sasha.MSG.NOM —
Ivana.
 Ivan.MSG.G=A
 ‘Yasha didn’t see Masha, nor Sasha Ivan.’

Under this analysis, in a TP-coordination structure like (510), the verb in Asp₂ is not pronounced.



However, in gapping constructions, there must be some contrast between the pronounced constituents. This is reflected in (509) by the use of conjunction *a*, which appears when its conjuncts display some degree of contrast with one another. Russian gapping constructions may also appear with the conjunction *no* ‘but’ or *ili* ‘or’, but not *i* ‘and’ (Kazenin, 2002; Grebenyova, 2006), as illustrated in (511).

- (511) * *Vasja podaril Maše knigu, i Kolja*
 Vasya.MSG.NOM gave.MSG Masha.FSG.DAT book.ACC and Kolya.MSG.NOM
kompakt-disk.
 CD.ACC
 intended: ‘Vasya gave Masha a book, and Kolya (gave Masha) a CD.’ (Kazenin, 2006)

The FCA constructions of interest use the conjunct *i*, and therefore are not likely to be gapping constructions.

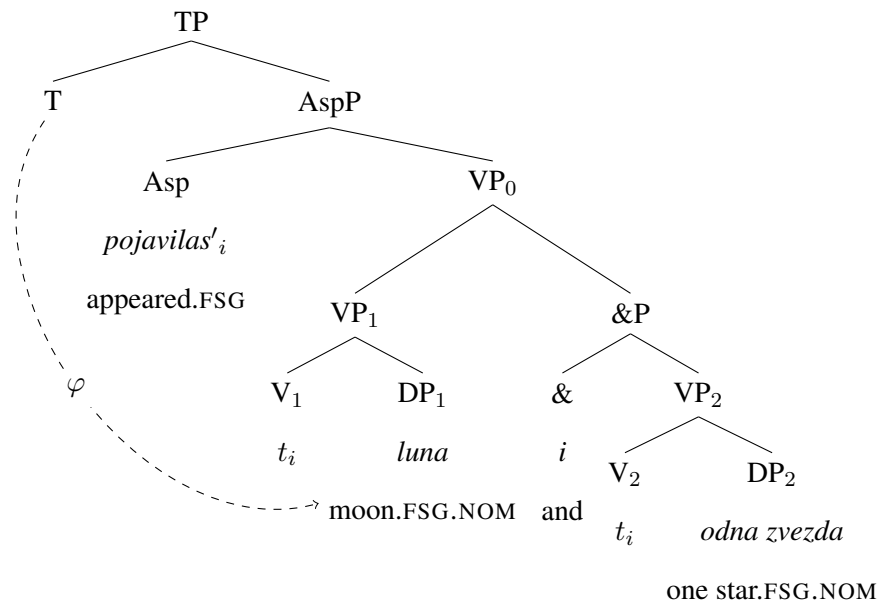
As shown here, both of the analytical possibilities that could have rescued the TP-coordination analysis—ellipsis (of the verb phrase or the aspectual phrase) and gapping of the second verb—have serious flaws. On this basis, I conclude that FCA in Russian does not occur in the context of TP-level coordination.

4.4.2 How FCA is derived in Russian: VP-level coordination

As an alternative, I propose a novel analysis of FCA in Russian. Under this analysis, FCA constructions arise when conjunction occurs at a level lower than TP. Two verb phrases are conjoined, and the verb moves via Across-the-Board movement to Asp; thus, only one instance of the verb is pronounced.¹⁸ This proposal differs from the majority of recent analyses of FCA in other languages, in which it is argued or assumed that FCA arises when two noun phrases are immediately conjoined (McCloskey, 1986; Sobin, 1997, 2014; Munn, 1999; Schütze, 1999; Doron, 2000; Van Koppen, 2005, 2012; Benmamoun et al., 2009; Bhatt & Walkow, 2011; Bošković, 2009, 2010). My analysis is illustrated in (512).

¹⁸ See Citko (2005) and Gračanin Yuksek (2007) for a multidominance account of Across-the-Board movement. They argue that a single syntactic object (e.g., V) may be merged in more than one position (e.g., as sister to DP₁ and DP₂). The syntactic object must then move to a position in which it c-commands both of its former positions (on this account, this means that V moves out of VP₁ and VP₂ to Asp, a position which c-commands both VP₁ and VP₂). If it does not move to this c-commanding position, the linearization procedure will be unable to use asymmetrical c-command to determine precedence, and the structure will fail to linearize. My analysis of FCA in Russian is consistent with such a multidominance account of Across-the-Board movement.

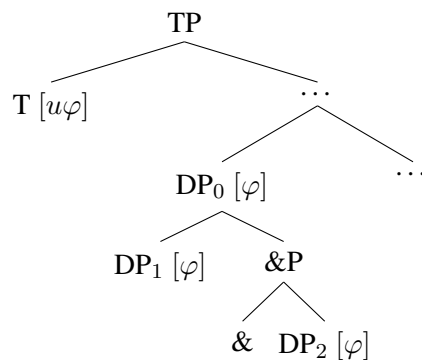
(512)



This derives the observed word order in which one instance of the verb is pronounced, followed by DP₁, *i* ‘and’, and DP₂. I assume that case assignment occurs prior to agreement, and that the agreement probe on T searches its c-command domain for a nominative DP with which to agree. The DP inside the first conjunct, DP₁, is a nominative argument with valued ϕ -features that is within T’s c-command domain. It is therefore an accessible goal, and T can agree with it. This derives the basic FCA pattern.

Under my analysis, the alternative structure, in which two or more DPs are immediately conjoined, does not result in FCA in Russian. Such a structure is shown in (513).

(513)



I propose that this kind of structure always results in plural verbal agreement in Russian. I discuss this syntactic configuration in further detail in Section 4.4.4 below, but the basic proposal is as follows. In this configuration, T can in principle agree with either DP_0 or DP_1 . If it agrees with DP_0 —resulting in plural verbal agreement— DP_0 can move to the specifier of TP; it may do so either overtly or covertly (see Section 2.5). In either case, DP_0 's movement to the specifier of TP satisfies Russian's EPP requirement on T. If T instead agrees with DP_1 —which would potentially result in singular verbal agreement—one of two problems arises. Either DP_1 remains *in situ*, leaving Russian's EPP requirement on T unsatisfied, or it moves to the specifier of TP. While the movement of DP_1 to the specifier of TP would satisfy the EPP requirement on T, it would violate the first clause of the Coordinate Structure Constraint. The consequence of all this is that, when two noun phrases are immediately conjoined, the only grammatical option is plural agreement.

The major difference between the structure in (512) and the structure in (513) is that, in (512), in which two verb phrases are conjoined, there is no constituent DP_0 that consists of the two conjoined noun phrases, while in (513), in which two noun phrases are immediately conjoined, there is such a constituent. In (512), because there is no plural noun phrase DP_0 (and because DP_1 is singular), plural agreement marking on the verb is impossible; plural agreement never appears because there is no plural DP_0 constituent that T could agree with.¹⁹ Under my analysis, the Russian FCA pattern occurs only when two VPs are conjoined, as in (512), and never in a conjoined-DP structure like (513).

Notably, the lack of a constituent DP_0 in the structure in (512) rules out FCA when the noun phrases are preverbal; the two noun phrases, DP_1 and DP_2 , do not form a constituent DP_0 , so they cannot move together out of their respective verb phrases to any preverbal position. This explains why FCA occurs only when the relevant noun phrases are postverbal.

Section 4.4.3 below expands on the different predictions made by the two structures represented in (512) and (513) and presents evidence that there is no constituent DP_0 in FCA constructions in

¹⁹ Of course, if we imagine a sentence with a structure like (512) but with a plural DP_1 , the verb will show plural agreement. I am not claiming that plural verbal agreement is impossible with such a structure, only that verbal agreement *with* DP_0 is impossible, for the simple reason that there is no DP_0 present in the structure.

Russian. Further details of the analysis can be found in Section 4.4.4.

4.4.3 Evidence for VP-level coordination

In Section 4.3 I introduced two families of hypotheses concerning the derivation of FCA, and in Section 4.4.2 I proposed that FCA in Russian occurs in the context of VP-level conjunction. In this subsection, I explore the predictions made by the analysis and present several pieces of evidence in favor of it—evidence that FCA in Russian is the result of the conjunction of two verb phrases rather than two noun phrases.

Several of these diagnostics follow the reasoning from Aoun et al. (1994), showing that elements in Russian that presuppose plurality cannot appear in FCA constructions. They go further, however, in facing Munn’s (1999) objections to the diagnostics used for varieties of Arabic. I show that the Russian versions of these diagnostics are sensitive to the semantic plurality of the relevant DPs, rather than requiring some formal expression of syntactic plurality; in other words, they can be used to tell whether two noun phrases are conjoined in FCA constructions. For example, the Russian adverb *vmeste* ‘together’, like Lebanese Arabic *sawa* ‘together’, presupposes the plurality of the verb’s argument. Unlike *sawa*, however, *vmeste* can appear with nouns that are grammatically singular but semantically plural, as in (514).

- (514) *Ix gruppа vmeste pojavilas’.*
 their group.FSG.NOM together appeared.FSG
 ‘Their group appeared together.’

Since *vmeste* does not require an element that is formally plural, its unacceptability in FCA constructions, as in (515), is likely to be due to something else.

- (515) *Na багаžnoj lente vmeste pojavilis'/*pojavijsja čemodan i*
 on baggage ribbon together appeared.PL/MSG suitcase.MSG.NOM and
portfel'.
 briefcase.MSG.NOM
 'A suitcase and a briefcase appeared together on the baggage carousel.'

If FCA constructions involve the conjunction of noun phrases, then we would expect that the requirements of *vmeste* would be met and that the verb should be able to appear with either plural or singular agreement, contrary to observation. If instead FCA involves the conjunction of verb phrases, then *vmeste* would have to be occurring in a verb phrase whose sole argument is singular, such as ... *čemodan pojavilsja vmeste* '... the suitcase appeared together'. Because the presupposition of plurality is not met, the sentence is unacceptable.

Next, Russian collective predicates like *smešat'sja* 'mix', *pomenjat'sja mestami* 'exchange places', and *vstrečat'sja* 'meet', are also sensitive to the semantic plurality of their arguments.²⁰ Like Arabic *ltaʔa* 'meet', such predicates are grammatical only when their subjects are semantically plural. They can appear, for example, with collective nouns like *vsjakaja vsjačina* 'sundries', *gruppa* 'group', and *sem'ja* 'family', which are grammatically singular but semantically plural, as in (516)–(518).

- (516) *Vsjakaja vsjačina smešalas'.*
 all.sorts.of.things.FSG.NOM mixed.PST.FSG
 'All sorts of things mixed.'
- (517) *Gruppa/sem'ja pomenjals' mestami.*
 group.FSG.NOM/family.FSG.NOM exchanged.PST.FSG places.NPL.INST
 'The group/family exchanged places.'

²⁰ Siloni (2002) argues that some reciprocal verbs in Hebrew are unergative; if that is also the case for the reciprocal verb *vstrečat'sja* 'meet' in Russian, FCA may be ungrammatical simply because its argument is external. However, Siloni presents evidence that Hebrew verbs whose meaning is inherently reciprocal are unaccusative; in Russian this class would include *pomenjat'sja* 'exchange' and *smešat'sja* 'mix'.

- (518) *Naša gruppа vstrečaejsja po sredam.*
 our.FSG.NOM group.FSG.NOM meets.3SG on Wednesdays
 ‘Our group meets on Wednesdays.’

Such predicates, however, cannot appear in FCA constructions. Instead, they appear only with plural forms of the verb, as in (519)–(521).

- (519) ... *gde smešalis'/*smešalsja den' i noč', smert' i smex, rastvorilsja Mark.*
 where mixed.PST.PL/MSG day.MSG.NOM and night.FSG.NOM death.FSG.NOM and
 laughter.MSG.NOM disappeared.MSG Mark.MSG.NOM
 ‘... where day and night, death and laughter mixed, Mark disappeared.’

(RNC. E. Xaeckaja. Sinie strekozy Vavilona. 2004.)

- (520) *Po sredam vstrečajutsja/*vstrečaejsja malen'kij mal'čik i ego soсед.*
 on Wednesdays meet.3PL/3SG little.MSG.NOM boy.MSG.NOM and his
 neighbor.MSG.NOM
 ‘The little boy and his neighbor meet on Wednesdays.’

- (521) ... *pomenjalis'/*pomenjalos' mestami dejstvitel'noe i mečta.*
 exchanged.PL/*NSG places.NPL.INST reality.NSG.NOM and dream.FSG.NOM
 ‘... reality and dream exchanged places.’ (Crockett, 1976, 224)

The fact that collective predicates can appear with syntactically singular nouns generally, but that they may not do so in FCA constructions, suggests that the two noun phrases in an FCA construction do not constitute a semantically plural constituent. This idea is most consistent with the VP-conjunction analysis.

Further evidence that the two noun phrases in FCA constructions are not immediately conjoined comes from their inability to jointly bind reflexives and reciprocals, a property also discussed by

Aoun et al. (1994) in varieties of Arabic. Under an analysis in which two noun phrases are conjoined, nothing prevents the conjoined noun phrase constituent from serving as an antecedent to *svoj*, a reflexive possessive pronoun. Under an analysis in which two verb phrases are conjoined, however, when the verb is singular, the two noun phrases do not form a constituent and therefore cannot act together to serve as a (plural) antecedent to *svoj*. In fact, when the verb is plural, and thus the two noun phrases are immediately conjoined, the noun phrases may bind a reflexive pronoun, as in (522). However, when the verb is singular, and thus the two noun phrases do not form a constituent, they may not do so, as in (523).²¹

- (522) *K svoemu domu podošli privlekatel'nyj*
 to self's.MSG.DAT house.MSG.DAT approached.PST.PL attractive.MSG.NOM
mužčina i ego mladšij brat.
 man.MSG.NOM and his younger.MSG.NOM brother.MSG.NOM
 '[An attractive man and his younger brother]_i came up to their_i own house.'
- (523) *K svoemu domu podošel privlekatel'nyj*
 to self's.MSG.DAT house.MSG.DAT approached.PST.MSG attractive.MSG.NOM
mužčina i ego mladšij brat.
 man.MSG.NOM and his younger.MSG.NOM brother.MSG.NOM
 '[[An attractive man]_i and his younger brother]_k came up to his_i/*their_k own house.'

Similarly, when the verb is singular, the two noun phrases cannot serve as the antecedent to the reciprocal *drug druga* 'each other', which requires a plural antecedent, as in (524).

²¹ As Babyonyshev (1996, 88) notes, the first conjunct is able to bind the reflexive in sentences like (523). *Svoj* is a subject-oriented anaphor (Rappaport, 1986), arguably bound by antecedents that are in the specifier of TP. Under the VP-conjunction analysis, only the first noun phrase is in the specifier of TP; this is the reason it can serve as an antecedent to *svoj*.

- (524) *Za stolom rjedom drug s drugom sideli/*sidel otec i syn*
 at table next.to each.other.INST sat.PST.PL/MSG father.MSG.NOM and son.MSG.NOM
xozjajki.
 host.FSG.GEN
 ‘Father and the host’s son sat next to each other at the table.’ (Glushan, 2013, 300)

These facts make sense if the agreement-triggering noun phrases are not immediately conjoined to one another, but instead embedded inside conjoined verb phrases.

Further evidence for the VP-conjunction analysis of FCA comes from constituency tests concerning the nominative noun phrases. Under the analysis in which two verb phrases are conjoined, the two noun phrases involved in an FCA construction do not form a constituent. Therefore, we do not expect them to be able to behave as a constituent with respect to common diagnostics for constituency, such as displacement and replacement with a pronoun—at least, not when the verb is singular. When the verb is plural, the noun phrases do form a single constituent and are predicted to behave as one with respect to the same diagnostics.

Unfortunately, some diagnostics of constituency do not help distinguish between the hypothesis that FCA involves the immediate conjunction of two noun phrases and the hypothesis that FCA involves the conjunction of larger constituents. First, consider displacement. When the verb is plural, both hypotheses correctly predict that the noun phrases should be able to move to a preverbal position, as in (525), because DP₁ and DP₂ form a constituent that is subject to movement operations like any other constituent.

- (525) *Luna i odna zvezda pojavilis' t_{DP}.*
 moon.FSG.NOM and one.FSG.NOM star.FSG.NOM appeared.PL
 ‘The moon and one star appeared.’

As discussed in Section 4.2, however, the noun phrases cannot move to a preverbal position when FCA is present, as in (526).

- (526) * [*Luna i odna zvezda*]_{DP} *pojavilas'* *t*_{DP}.
 moon.FSG.NOM and one.FSG.NOM star.FSG.NOM appeared.FSG

While it is possible to attribute the unacceptability of (526) to the fact that two noun phrases that do not form a constituent cannot move together to a single position, as argued above, there is another possibility. Suppose that *luna i odna zvezda* ‘the moon and one star’ is a constituent; if it is in preverbal position, it is likely in the specifier of TP. And it is possible that any argument in the specifier of TP must have agreed (in full) with T. Therefore examples like (526) do not provide definitive evidence for the VP-conjunction analysis of FCA.

A second diagnostic for constituency is replacement by a pronoun. When the verb is plural, as in (527), the two postverbal noun phrases can be jointly replaced by a (plural) personal pronoun. When the verb is singular, as in (528), the noun phrases cannot be replaced by a (plural) pronoun.

- (527) *V polnoč' pojavilis' oni.*
 at midnight appeared.PL they.3PL.NOM
 ‘At midnight they appeared.’

- (528) * *V polnoč' pojavilas'/pojavilsja/pojavilos' oni.*
 at midnight appeared.FSG/MSG/NSG they.3PL.NOM

This fact, however, could be easily explained while maintaining that the two noun phrases in an FCA construction form a constituent; we could say that (528) is ungrammatical because the plural pronoun *oni*, being a single lexical item, does not have a complex syntactic structure; it therefore cannot contain a subconstituent that is singular, nor trigger singular verbal agreement. By contrast, a conjoined DP constituent would contain (at least) two subconstituents, one of which could trigger singular verbal agreement. Therefore, the ungrammaticality of (528) is not particularly informative.

By contrast, other constituency diagnostics are more difficult to explain under the DP-conjunction analysis and provide support for the VP-conjunction analysis. For example, if the two noun phrases form a constituent, we would expect to be able to modify them using an adjective that scopes over both noun phrases. If instead two verb phrases are conjoined, any adjective would be modifying only

the linearly first noun phrase. In fact, while a high-scoping adjective, *krasivye* ‘beautiful.PL.NOM’, which bears plural agreement, can modify the two noun phrases when the verb is plural, as in (529), it may not do so when the verb is singular, as in (530).

- (529) *Na stole stojali krasivye stakan i vaza.*
 on table stood.PST.PL beautiful.PL.NOM glass.MSG.NOM and vase.FSG.NOM
 ‘On the table stood a beautiful glass and vase.’

- (530) **Na stole stojal krasivye stakan i vaza.*
 on table stood.PST.MSG beautiful.PL.NOM glass.MSG.NOM and vase.FSG.NOM

Similarly, a relative clause cannot scope over both noun phrases while singular agreement is maintained; the relativizer *kotorye* ‘which.PL.NOM’, also bearing plural agreement, may modify the two noun phrases only when the verb displays plural agreement, as in (531), cf. (532).

- (531) *V prudu utonuli šarf i varežka, kotorye mat' svjazala.*
 in pond sank.PL scarf.MSG.NOM and mitten.FSG.NOM which.PL.ACC
 mother.FSG.NOM knit.PST.FSG
 ‘In the pond sank the scarf and mitten that mother had knit.’

- (532) **V prudu utonul šarf i varežka, kotorye mat' svjazala.*
 in pond sank.MSG scarf.MSG.NOM and mitten.FSG.NOM which.PL.ACC
 mother.FSG.NOM knit.PST.FSG

Under a VP-conjunction hypothesis, this pattern is expected: in (532) there is no conjoined noun phrase constituent that is available to be modified by a plural adjective or relativizer. It is not clear exactly what a DP-conjunction hypothesis would predict with respect to this pattern. If the two noun phrases are immediately conjoined to form a larger noun phrase, we do expect it to be able to be modified by a plural marked adjective or relativizer. Then, depending on how verbal agreement is determined, we might expect that singular verbal agreement is possible. On the other hand, it

may be the case that, if plural marking has been introduced in the noun phrase, the verb must also appear in the plural.²² This assumption would provide a reason for the ungrammaticality of (530) and (532) even under a DP-conjunction hypothesis.

Modification using postnominal possessors, however, provides more definitive evidence in favor of the VP-conjunction analysis. A possessor noun, marked with genitive case, may follow its possessee. In the relevant constructions, when the verb is plural, the postnominal possessor may take either low scope, modifying only the second noun phrase, or high scope, modifying both noun phrases, as in (534). By contrast, when the verb is singular, the possessor may only take low scope, as in (535).

- (534) *V prudu utonuli šarf i varežka materi.*
 in pond sank.PL scarf.MSG.NOM and mitten.FSG.NOM mother.FSG.GEN
 ‘A scarf and mother’s mitten sank in the pond.’ low scope
 ‘Mother’s [scarf and mitten] sank in the pond.’ high scope
- (535) *V prudu utonul šarf i varežka materi.*
 in pond sank.MSG scarf.MSG.NOM and mitten.FSG.NOM mother.FSG.GEN
 = ‘A scarf and mother’s mitten sank in the pond.’ low scope
 ≠ ‘Mother’s [scarf and mitten] sank in the pond.’ *high scope

²² This assumption would align with Corbett’s (1979) Agreement Hierarchy, which describes the distribution of *semantic* agreement. Corbett argues that, in a given language, personal pronouns are the most likely to exhibit semantic agreement, followed by relative pronouns, followed by predicates, followed by attributives. Some Russian nouns that are grammatically masculine but which can denote women are able to appear with either masculine or feminine adjectives and with either masculine and feminine verbs; however, if the adjective is feminine, the verb must also be feminine (533). The same principle may be at work in (529)–(532).

- (533) a. *Novyj vrač skazal...*
 new.MSG.NOM doctor.MSG.NOM said.PST.MSG
 ‘The new (female) doctor said...’
 b. *Novyj vrač skazala...*
 new.MSG.NOM doctor.MSG.NOM said.PST.FSG
 c. *Novaja vrač skazala...*
 new.FSG.NOM doctor.MSG.NOM said.PST.FSG
 d. * *Novaja vrač skazal...*
 new.FSG.NOM doctor.MSG.NOM said.PST.MSG
- (Corbett, 1983, 66)

When the postnominal possessor in (534) takes high scope, it is likely in a high position within the DP, scoping over two noun phrases that are immediately conjoined. Under a DP-conjunction analysis of FCA, there is no obvious reason why FCA should be disallowed in (535); the noun phrases *šarf* ‘scarf’ and *varežka* ‘mitten’ should form a constituent, the postnominal possessor should be able to modify that constituent, and the verb should be able to display singular agreement with DP₁, *šarf*. Unlike the adjective in (529) and (530) and the relativizer in (531) and (532), the postnominal possessor does not inflect for the number of its possessee; there is therefore no reason to suspect that the obligatory plural marking on the verb on the high scope interpretation is somehow forced by the existence of plural marking within the noun phrase. Under a VP-conjunction analysis of FCA, however, the observed pattern is expected; the noun phrases *šarf* ‘scarf’ and *varežka* ‘mitten’ do not form a constituent in (535), and so they cannot be modified together by a possessor.

While the evidence presented above suggests that two verb phrases, rather than two noun phrases, are conjoined in FCA constructions, there remain some unexpected data that require further consideration. Given my analysis, one might expect certain behavior with respect to low-adjoining modifiers in FCA constructions. Specifically, if two verb phrases are conjoined in an FCA construction, one might expect that each verb phrase can be modified independently of the other. However, such modification is allowed only if there is a prosodic break between the modifier and the second noun phrase. For example, in both (536) and (537), the verb is singular and each verb phrase is modified by an adjunct that presumably scopes lower than TP. Sentence (536), which is acceptable, contains a prosodic break, while (537), which is unacceptable, does not have the prosodic break.

- (536) *V prudu bystro utonulo kol'co i medlenno – pis'mo.*
 into pond quickly sank.NSG ring.NSG.NOM and slowly letter.NSG.NOM
 ‘The ring sank into the pond quickly and the letter, slowly.’
- (537) * *V prudu bystro utonulo kol'co i medlenno pis'mo.*
 into pond quickly sank.NSG ring.NSG.NOM and slowly letter.NSG.NOM

The same contrast can be seen in (538) and (539) with modifiers that adjoin on the other side of their respective verb phrases.

(538) *S kryši upal stroitel' odin raz i brigadir – tri raza.*
 from roof fell.MSG worker.MSG.NOM one time and foreman.MSG.NOM three times
 ‘The worker fell from the roof once and the foreman, three times.’

(539) **S kryši upal stroitel' odin raz i brigadir tri raza.*
 from roof fell.MSG worker.MSG.NOM one time and foreman.MSG.NOM three times

The unacceptability of the examples without prosodic breaks is somewhat unexpected if, as I claim, FCA constructions involve the coordination of two verb phrases. One possible explanation of the data is that the modifiers (e.g., *bystro* ‘quickly’, *medlenno* ‘slowly’, *odin raz* ‘once’, and *tri raza* ‘three times’) do not actually adjoin at the level of VP; if they instead adjoin slightly higher, at the level of *vP* or *AspP*, for example, then the unacceptability is explained: there is only one *vP* and one *AspP* in an FCA construction, so it cannot be modified by two contrasting modifiers. So, while these data are somewhat unexpected if we assume that FCA occurs in the context of conjoined verb phrases, further work is needed to determine whether the data constitute genuine counterevidence.

In this subsection, I have argued that the two noun phrases involved in an FCA construction do not behave as constituents and that FCA is unacceptable in the presence of elements, such as collective predicates, that presuppose that the noun phrases join together to form a plural. The analysis presented here, that the conjunction involved in FCA constructions is at the level of the verb phrase, is more consistent with these facts than an alternative account in which conjunction is at the level of the noun phrase, providing support for the analysis presented in the previous section. The following subsection explains further details of the proposal.

4.4.4 Covert movement in the VP-level coordination account of FCA

While the previous sections established the basic account of FCA in Russian, three aspects of its distribution remain unaccounted for. In particular, I have not yet addressed why the verb cannot

agree with the noun phrase in the non-initial conjuncts (DP_2 , DP_3 , and so on), why only internal arguments trigger FCA, or why FCA is disallowed when the relevant noun phrases are immediately conjoined. Crucially, the answers to these questions depend on a piece of my analysis of the clause structure of Russian and the position of nominative arguments that was introduced in Section 2.5. There, I argue that some arguments can move covertly—that is, that some arguments can undergo syntactic movement while being pronounced *in situ*. Specifically, I argue in Section 2.5 that a nominative argument that has agreed with T but which is pronounced postverbally either may or must move covertly to the specifier of TP. In the context of my analysis of Russian FCA, that means that DP_1 can move covertly out of VP_1 to the specifier of TP even though DP_1 is pronounced postverbally. In this section, I present evidence that DP_1 does indeed move to the specifier of TP covertly, and I show how this property of my analysis helps answer the questions that remain about the distribution of FCA.

This move has consequences—once I have accepted that that this covert movement takes place, then accounting for the remaining questions obligates me to make three analytical commitments concerning the syntactic structure of the Russian clause and the nature of coordination. First, in order to account for all of the as-yet unexplained aspects of the distribution of FCA, I must assume that Russian has an EPP requirement on T (see Babyonyshev, 1996; Lavine, 1998; Babyonyshev et al., 2001; Lavine & Freidin, 2002; Bailyn, 2004; Slioussar, 2007, 2011), and that this EPP requirement can be satisfied by covert movement of some element to the specifier of TP. The second commitment, this one concerning the syntactic structure of coordination, is necessary to rule out agreement between T and non-initial conjuncts. While in Section 4.3.1 I laid out several possible structures for coordination, nothing in the analysis up to that point forced me to choose among them. Here, once it is assumed that DP_1 moves covertly to the specifier of TP in FCA constructions, it becomes possible to choose among the potential structures. I argue that the structure proposed by Munn (1993), in which the second conjunct is adjoined to the first conjunct, best represents coordination. The third commitment can be broken into two subcommitments: (1) in order to account for the covert movement of DP_1 to the specifier of TP in FCA constructions, I must assume that the second

clause of the Coordinate Structure Constraint, introduced in Section 4.3.1, can be violated, and (2) in order to account for the absence of FCA in the context of immediately conjoined noun phrases, I must assume that the first clause of the Coordinate Structure Constraint cannot be violated. I follow Grosu (1973) and Postal (1998) in arguing that the two clauses of the Coordinate Structure Constraint should be considered separately and that the second clause is in a sense “weaker” than the first, in that the second clause may be violated under circumstances in which the first may not be. These broader conclusions about syntactic movement and about the nature of coordination are consequences of my adoption of covert movement into my analysis of FCA in Russian.

I begin by presenting evidence that covert movement of DP_1 to the specifier of TP occurs in Russian FCA constructions. One of the core pieces of evidence suggesting that nominative arguments move covertly to the specifier of TP, as presented in Section 2.5, is that such an argument is able to serve as the antecedent to a high anaphor, even when it is pronounced postverbally. In FCA constructions, likewise, DP_1 can serve as the antecedent to an instance of the anaphor *svoj* that occurs in a high position to the left of T, as in (540), despite DP_1 appearing postverbally.

- (540) *K svoemu domu podošel privilekatel'nyj mužčina i ego mladšij brat.*
 to self's house approached.MSG attractive.MSG.NOM man.MSG.NOM and his
 younger.MSG.NOM brother.MSG.NOM
 ‘[[An attractive man]_i and [his younger brother]_k]_l came up to his_i/*his_k/*their_l house.’

In (540), the antecedent must be interpreted as coreferent with DP_1 . It may not be coreferential with the second conjunct, DP_2 , nor can it be interpreted as coreferent with both DP_1 and DP_2 (that is, it cannot indicate joint ownership of the house). This suggests that DP_1 moves covertly to the specifier of TP in FCA constructions.

One might question my proposal that DP_1 moves to the specifier of TP in FCA constructions, since this movement apparently violates the Coordinate Structure Constraint in (466), repeated here

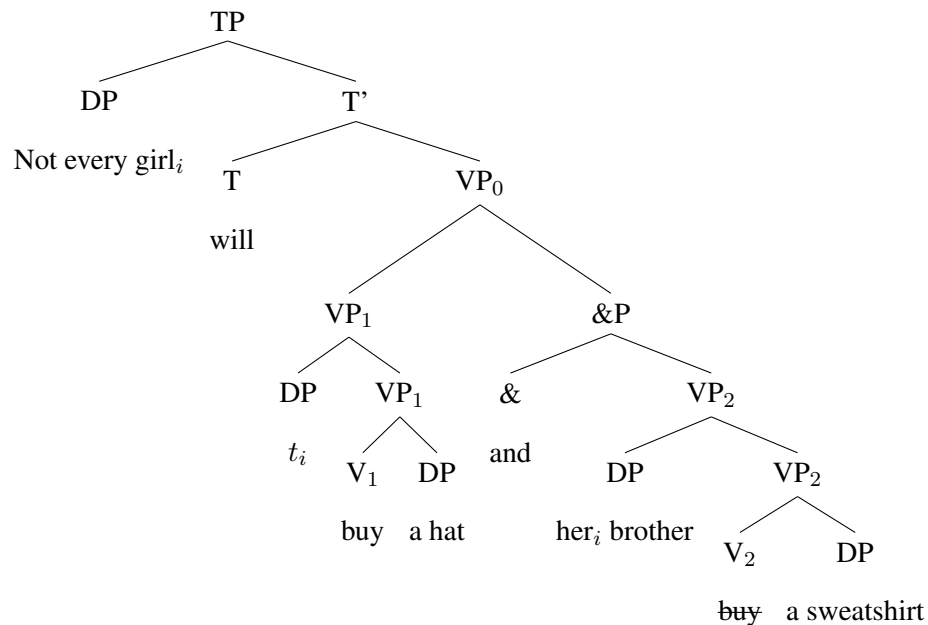
as (541). Specifically, the movement violates the second clause of the Coordinate Structure Constraint, which bars movement of an element within a conjunct to a position outside of the conjunct.

(541) In a coordinate structure,

- a. no conjunct may be moved out of the coordinate structure,
- b. nor may any element contained in a conjunct be moved out of that conjunct.

Despite violating the second clause of the Coordinate Structure Constraint, asymmetrical A-movement like this has been independently proposed to exist in other languages. For example, Johnson (1996) provides evidence from gapping in English that, when two VPs are conjoined, the subject of the first VP can move out of its conjunct and into the specifier of TP. The subject of the second VP remains *in situ*, as illustrated in (542).

(542)



When the quantified subject *not every girl* is *in situ* within VP₁, it does not c-command *her brother* and should therefore not be expected to scope over it. After *not every girl* moves to the specifier

of TP, it does *c*-command *her brother*, licensing the observed scope relation. This scope relation suggests that *not every girl* really is in the specifier of TP, having moved out of the VP₀ constituent.

Similarly, Johnson (2009) argues that, in a sentence like (543), *Mrs. Smith* originates in VP₁ and moves to the specifier of TP.

- (543) Mrs. Smith_i can't [*t_i* dance]_{VP1} or [Mr. Smith sing]_{VP2}.
 a. = Mrs. Smith can't dance and Mr. Smith can't sing.
 b. ≠ Mrs. Smith can't dance or Mr. Smith can't sing.

Interpretation (a) is acceptable, but interpretation (b) is not, meaning that the negated auxiliary *can't* scopes over both conjuncts. This indicates that *Mrs. Smith* must have originated inside the conjoined VP. The surface word order, on the other hand, suggests that *Mrs. Smith* has moved, presumably to the specifier of TP. Johnson (1996) uses this evidence to propose that A-movement is not subject to the Coordinate Structure Constraint; alternatively, Lin (2002), looking at similar evidence, reformulates the Coordinate Structure Constraint such that some asymmetrical A-movement is allowed. The structure and movement I propose for Russian FCA constructions parallels that of these English examples; the only difference is that I propose that the movement in Russian is covert.

In Russian itself, there is independent evidence that (overt) extraction out of a conjunct is possible in certain circumstances; again, this movement appears to violate the second clause of the Coordinate Structure Constraint. Russian allows extraordinary left branch extraction (LBE), in which the preposition and an adjective inside a prepositional phrase can be extracted to a position outside of the prepositional phrase, as illustrated in (544) and (545).

- (544) *Vanja vošël v bol'šuju komnatu.*
 Vanya.MSG.NOM entered.MSG into big room
 'Vanya entered a big room.' (Oda, 2017)

- (545) [*V bol'šuju*]_i *Vanja vošël [t_i komnatu].*
 into big Vanya.MSG.NOM entered.MSG room
 'Vanya entered a big room.' (Oda, 2017)

Extraordinary LBE can be analyzed as occurring when the preposition incorporates into the adjectival phrase (Bošković, 2013); this allows the prepositional phrase and adjective—which would otherwise not form a constituent—to move together, and, under Bošković’s (2013) account, it means that the prepositional phrase is no longer an island for movement. When two prepositional phrases are conjoined, extraordinary LBE from the first conjunct is still allowed, as in (546).

- (546) *[V bol' šuju]_i Vanja vošel [[t_i komnatu] i [v malen'kuju*
 into big Vanya.MSG.NOM entered.MSG room and into small
kuxnju]].
 kitchen
 ‘Vanya entered the big room and the small kitchen.’ (Oda, 2017)

This movement is an approximate parallel of what I propose for FCA constructions: an element within the first conjunct is allowed to move to a position outside of the larger conjoined element. Again, the only major difference is that the movement I propose for Russian FCA constructions is covert. From these observations, I conclude that the second clause of the Coordinate Structure Constraint can be violated in Russian; in FCA constructions, the covert movement of DP₁ out of VP₁ to the specifier of TP constitutes one such violation.

Now having established that DP₁ undergoes covert movement to the specifier of TP in Russian FCA constructions, we can turn to the first of the remaining questions concerning the distribution of FCA: why the verb cannot agree with non-initial conjuncts like DP₂, DP₃, and so on. In answering this question, I assume the covert movement analysis presented just above. And in so doing, I commit myself to two further assumptions—the first concerning the EPP requirement on T in Russian and the second concerning the syntactic structure of coordination in general.

So, why is agreement impossible between the verb and the non-initial conjunct(s)? As I have argued, Russian FCA occurs in the context of conjoined VPs, as represented in (512). In such a structure, DP₂, like DP₁, is also a potential goal of the agreement probe on T. Under an approach in which asymmetric c-command determines locality for agreement (Chomsky, 2000, 2004), DP₁

does not serve as an intervener between T and DP₂, and nothing else rules out such agreement. This potentially predicts that T should be able to agree with DP₂; contrary to this prediction, however, the verb never agrees with DP₂, as shown in (547).²³

- (547) * *V polnoč' pojavilsja luna i Mars.*
 at midnight appeared.MSG moon.FSG.NOM and Mars.MSG.NOM
 (intended) 'At midnight the moon and Mars appeared.'

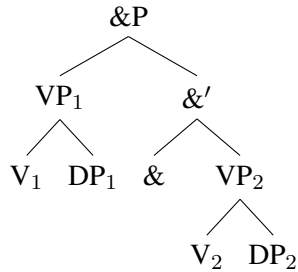
Since nothing rules out T agreeing with DP₂, why is (547) unacceptable? I propose that Russian has a requirement that the specifier of TP be filled, whether it is filled with a pronounced element or not. That is, Russian has an EPP requirement on T (see Babyonyshev, 1996; Lavine, 1998; Babyonyshev et al., 2001; Lavine & Freidin, 2002; Bailyn, 2004; Slioussar, 2007, 2011), and this EPP requirement may be satisfied by the covert movement of a phrase to the specifier of TP. In FCA constructions, the specifier of TP is filled by the covertly-moved DP₁. But, I claim, the specifier of TP could not instead be filled by a covertly-moved DP₂: T may agree with DP₂, but the (covert) movement of DP₂ to the specifier of TP is blocked, resulting in the EPP requirement on T being unsatisfied. This leads to the ungrammaticality of sentences like (547).

Why should the movement of DP₂ be blocked? To answer this question, I revisit an issue raised earlier in the chapter concerning the syntactic structure of coordination. In Section 4.3.1, I presented several previously-proposed structures of coordinated phrases; for the purposes of the argument in that section, the structure assumed for coordination did not matter. Here, however, we can return to the issue. Both structures in (548) and (549) represent coordinated verb phrases. In (548), the first conjunct is a specifier of the conjunction head &, and the second conjunct is a complement; this is in line with the structure for coordination proposed by Munn (1987), Grootveld (1992), Johannessen (1993), and Zoerner (1995). By contrast, in (549), based on the structure proposed by Munn (1993), the first VP conjunct is simply part of the main clausal spine, and the &P, containing the second

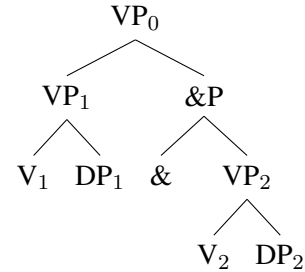
²³ Alternatively, we could say that DP₁ is the closest DP to T, not because it asymmetrically c-commands DP₂, but because its mother, VP₁, asymmetrically c-commands the mother of DP₂, VP₂. While this would preclude T from agreeing with DP₂—thereby correctly ruling out (547)—it has the unfortunate effect of redefining locality for agreement.

conjunct, is adjoined to the first conjunct.

(548)



(549)



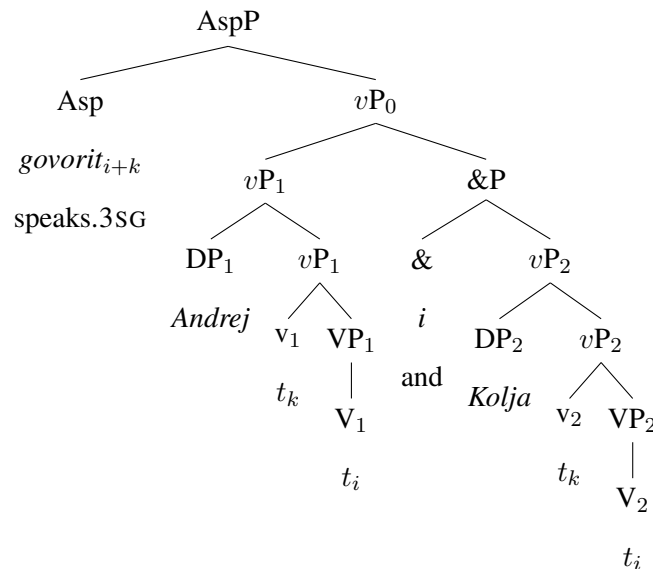
Throughout this chapter, for concreteness, I have represented coordinated structures in line with the tree in (549), but nothing really hinged on that decision. Now, however, the discussion of covert movement of DP₁ and DP₂ within the coordinated verb phrase suggests that this decision was the correct one.

The structures shown in (548) and (549) make different predictions about which of the conjuncts can be extracted from. In (548), the movement of DP₁ out of VP₁ is extraction out of a specifier, which should not be allowed, while movement of DP₂ out of VP₂ is extraction out of a complement, which should be allowed in principle. By contrast, in (549), the movement of DP₁ out of VP₁ is an allowable movement along the main clausal spine, while movement of DP₂ out of VP₂ is movement out of an adjunct, a type of movement which is banned elsewhere. Because my analysis requires that DP₁ can be moved but DP₂ cannot, I must adopt the structure of coordination represented in (549) rather than that in (548). In this way, my analysis of FCA in Russian, including my claim that DP₁ moves covertly to the specifier of TP, leads me to assume that the structure of coordination is that represented in (549), in which the second conjunct is adjoined to the first. If such a structure is adopted, DP₂ cannot move (covertly) to the specifier of TP, meaning that the EPP requirement on T will not be satisfied. This is what rules out sentences like (547), in which the verb shows agreement with DP₂.²⁴

²⁴ An alternative account is possible: one could assume that the coordinated phrases constitute phases (Chomsky, 2000). On this account, the asymmetry between DP₁ and DP₂ with respect to their ability to move is expected because only the first conjunct is at the phase edge, so only the first conjunct can escape VP₀ to move to the specifier of TP. See also Harves's (2003) analysis of FCA in Russian, which relies on the phasehood of the coordinated noun

Now, having explained the ban on agreement with non-initial conjuncts, the next unexplained aspect of the distribution of FCA in Russian concerns the distinction between internal and external arguments. Why is it that only internal arguments can trigger FCA in Russian? I assume that when two unergative verb phrases are conjoined, each conjunct must be a *vP*, rather than a *VP*.²⁵ The tree in (550) illustrates the conjunction of two *vPs* with concomitant Across-the-Board movement of the verb to *Asp*.

(550)



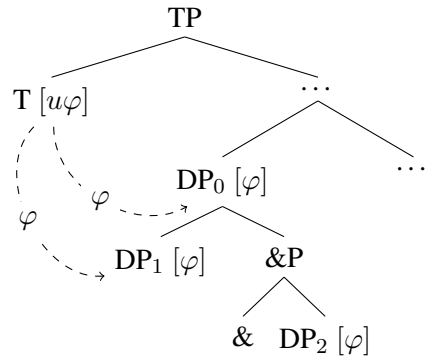
In such a structure, nothing prevents *T* from agreeing with *DP*₁, but apparently *DP*₁ cannot move out of the *vP* (even covertly). *DP*₁ may be blocked from moving because doing so would mean moving out of two phases in a single movement: *vP*₁ and the larger coordinated phrase, *vP*₀. If *DP*₁ is not able to raise to the specifier of *TP*, the EPP requirement on *T* will not be satisfied, resulting in ungrammaticality. This problem does not arise for internal arguments because *VP* is not a phase; *DP*₁ is able to covertly move out of the coordinated *VP* and satisfy the EPP requirement on *T*.

phrase, *DP*₀, to rule out agreement between *T* and *DP*₂.

²⁵ I assume for concreteness that unergative verbs have a *vP* shell and that unaccusative verbs do not. Alternatively, one could say that both unergative and unaccusative verbs have a *vP* shell, but that their *vs* are different “flavors”, perhaps having different featural makeups such that unergative *vP* constitutes a phase and unaccusative *vP* does not. Nothing hinges on this decision. Under this alternative analysis, I would have to say that *DP*₁ cannot move out of unergative *vP* (even covertly), but that it can move out of unaccusative *vP* (potentially covertly).

The final as-yet unexplained aspect of the distribution of FCA concerns the environment in which two noun phrases are immediately conjoined. As I argue in Sections 4.4.2 and 4.4.3, Russian disallows FCA when two noun phrases are immediately conjoined. Consider the structure in (551).

(551)



Of course, nothing rules out such a structure—noun phrases may be immediately conjoined in Russian. And, as discussed above, according to the locality conditions on the Agree operation, nothing rules out T entering into an Agree relation with either DP₀ or DP₁. If T agrees with DP₀, DP₀ moves to the specifier of TP. If it does so overtly, the two noun phrases will appear preverbally and plural agreement will appear on the verb, as in (465). DP₀ could instead move to the specifier of TP covertly, resulting in the two noun phrases appearing postverbally, again with plural agreement on the verb, as in the plural variant in (464).

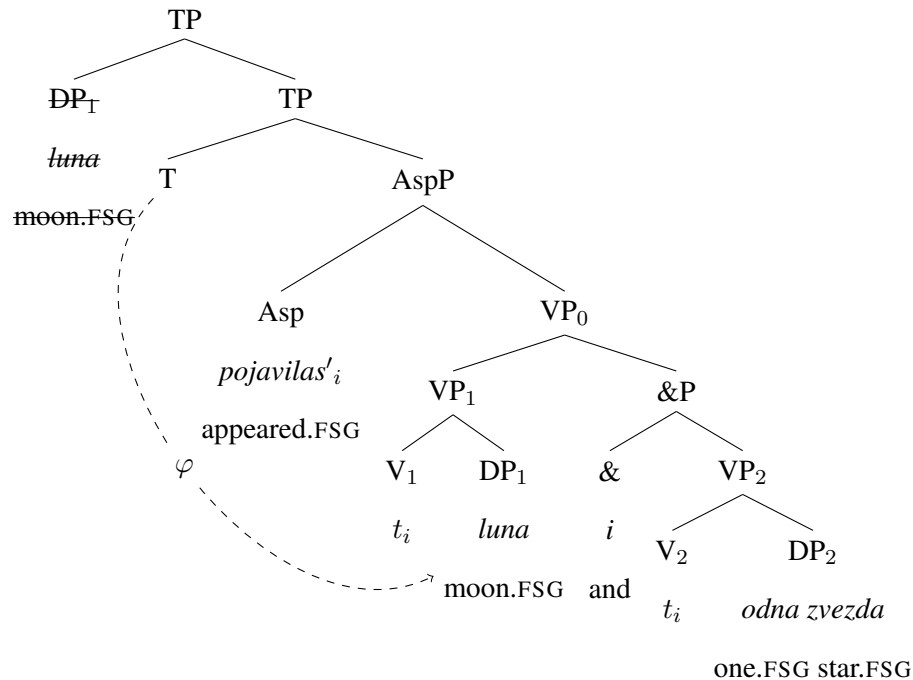
But a problem arises when T agrees with DP₁ instead. I have proposed that there is an EPP requirement on T in Russian such that the specifier of TP must be filled, and that the movement of the element to the specifier of TP may be covert. I further propose that DP₁ in the structure above cannot move to the specifier of TP to fulfill that requirement, because doing so would violate the first clause of the Coordinate Structure Constraint in (466), repeated here as (552).

(552) In a coordinate structure,

- a. no conjunct may be moved out of the coordinate structure,
- b. nor may any element contained in a conjunct be moved out of that conjunct.

As noted just above, however, my analysis requires that the second clause of the Coordinate Structure Constraint be violated in FCA constructions in Russian: the movement of DP₁ out of the first VP to the specifier of TP, as illustrated in (553), constitutes such a violation.

(553)



Thus, the account of one aspect of the distribution of FCA requires the Coordinate Structure Constraint to stand, while the account of another aspect of the distribution of FCA requires it to be violated; however, the account of the first aspect appeals to the first clause of the Coordinate Structure Constraint and the account of the other aspect appeals to the second clause. In fact, much work argues that the phenomena attributed to the Coordinate Structure Constraint do not form a unified class; for example, some constructions suggest that the second clause may be violated under circumstances in which the first cannot. For example, Grosu (1973) argues that Super-Equi-NP Deletion, VP Deletion, Sluicing, and Genitive-Head Deletion, shown in (554)–(557), are grammatical when the deleted element is a subpart of a conjunct (the (a) examples) but ungrammatical when the deleted element constitutes the entire conjunct (the (b) examples).

- (554) a. John believes [that it is dangerous ___ to shave himself with a rusty blade and that he must never use a blade more than twice].
- b. * John knows it would be dangerous for [___ and Mary] to wash themselves with acid.
- (555) a. I couldn't lift this sword, but [I know a boy who could ___ and I am scared of him].
- b. * I couldn't lift this rock, but I know a boy who can [___ and bend a crowbar] too.
- (556) a. John may have been shot by someone, but [I don't know who ___ and nobody cares anyway].
- b. * Somebody came in at 5 o'clock, but I have no idea who [___ and left at ten].
- (557) a. Somebody seduced Bill's sister, but [no one will ever seduce Jack's ___ and she knows it].
- b. * I like John's mother, but I don't like Bill's [___ or father].

Postal (1998) provides further evidence to support the idea that the two clauses of the Coordinate Structure Constraint ought to be treated separately (see also Oda, 2017; Bošković, 2018). The idea that the two clauses are separate and perhaps separately motivated comes from earlier work; Ross (1967) notes that the first clause of the Coordinate Structure Constraint can be reduced to the A-over-A Principle, while Pollard & Sag (1994) argue that the first clause of the Coordinate Structure Constraint results from their Trace Principle. By contrast, the second clause of the Coordinate Structure Constraint cannot be reduced to such principles. One might therefore say that the second clause of the Coordinate Structure Constraint is “weaker” than the first: it is able to be violated under circumstances in which the first clause cannot be. I claim that FCA in Russian exemplifies this distinction; a noun phrase that is embedded within a conjoined VP can move to the specifier of TP, as DP₁ in (553), but a noun phrase that is immediately conjoined to another noun phrase, as DP₁ in (551), cannot do so.

There is evidence that DP₁ cannot move in a structure like (551), in which DP₁ is immediately

conjoined to DP₂. I have argued that, in the relevant sentences, when there is plural agreement on the verb, the first and second conjunct form a DP constituent, DP₀. In such instances, it is not possible for DP₁ to move to a preverbal position, as the unacceptability of sentence (558) illustrates. Sentence (558) contains a plural verb, a high anaphor *svoj*, and a DP₁ that has moved overtly to what I have argued is the specifier of TP.

- (558) * *K svoemu domu [privlekatel'nyj mužčina]_i podošli [t_i i ego*
 to self's house attractive.MSG.NOM man.MSG.NOM approached.PL and his
mladšij brat].
 younger.MSG.NOM brother.MSG.NOM
 intended: 'An attractive man and his younger brother came up to their/his house.'

The unacceptability of (558) shows that DP₁ cannot move overtly out of DP₀ to the specifier of TP. What's more, there is evidence that DP₁ cannot undergo this movement *covertly* either. Sentence (559) differs minimally from (558): the verb is plural, indicating that the two noun phrases DP₁ and DP₂ form a constituent, DP₀, and there is a high anaphor *svoj*—what differs is that in (559), the conjoined noun phrases are pronounced postverbally.

- (559) *K svoemu domu podošli [privlekatel'nyj mužčina i ego*
 to self's house approached.PL attractive.MSG.NOM man.MSG.NOM and his
mladšij brat].
 younger.MSG.NOM brother.MSG.NOM
 '[[An attractive man]_i and [his younger brother]_k]_l came up to their_l/*his_{i/k} house.'

In (559), the anaphor can only be interpreted as coreferring to DP₀. This indicates that DP₀ has moved covertly to the specifier of TP. Crucially, the anaphor cannot corefer to DP₁; this indicates that DP₁ must not have moved covertly out of DP₀ to occupy the specifier of TP, a move that would be necessary in order for the anaphor to be interpreted as coreferring to DP₁. It is reasonable to conclude that the movement of DP₁ out of DP₀ is illicit because it violates the first clause of the Coordinate Structure Constraint.

On this basis, then, I conclude that the first clause of the Coordinate Structure Constraint is relevant to Russian and precludes the movement—whether overt or covert—of DP₁ within a larger coordinated noun phrase; together with an EPP requirement on T, this rules out FCA in the context of coordinated noun phrases.

Altogether, in this section I have explained three aspects of the distribution of FCA in Russian: why the verb never agrees with non-initial conjuncts, why FCA is triggered only by internal arguments, and why FCA does not appear in the context of immediately conjoined noun phrases. The explanation of each of these aspects relies crucially on the covert movement account introduced in Section 2.5, in which I argued that nominative arguments that have agreed with T can move to the specifier of TP while being pronounced *in situ*; here, I have argued that DP₁ in FCA constructions similarly moves covertly to the specifier of TP. In accounting for these aspects of the distribution of FCA, I have made three analytical commitments concerning the syntactic structure of the Russian clause and the nature of coordination. First, I have adopted the proposal that Russian has an EPP requirement on T, which requires that the specifier of TP be filled, and that this requirement can be satisfied via covert movement. Second, I have shown that a particular syntactic structure for coordination, in which the second conjunct is adjoined to the first, is most consistent with my analysis of FCA. And third, I have proposed that the second clause of the Coordinate Structure Constraint, but not the first, is violated in Russian FCA constructions, providing further evidence that the two clauses should be considered separately.

4.5 An alternative analysis: Small Nominals

While I have argued that FCA in Russian involves conjunction of verb phrases, there is a potential alternative analysis that may be consistent with some of the data presented in the previous sections. The analysis requires the assumption that noun phrases in some languages, including Russian, can have one of two syntactic structures assigned to them—they may be DPs or NPs.

With the advent of the DP hypothesis (Abney, 1987), some researchers argued that noun phrases

have a DP projection even in languages that do not have overt determiners—that noun phrases are DPs crosslinguistically and possibly universally (Longobardi, 1994; Matthewson, 1998; Progovac, 1998a; Kalluli, 1999). An alternative approach is that whether a language has DP or NP arguments is parameterized (Chierchia, 1998; Baker, 2003; Bošković, 2005), with languages like English and Italian having only DP arguments and languages like Russian, other Slavic languages like Polish and Serbo-Croatian, and Chinese having only NP arguments. Pereltsvaig (2006) argues for a third approach for Russian, which states that Russian has both DP-sized arguments as well as arguments that are Small Nominals, which are QPs (Quantity Phrases) or bare NPs.

DPs differ from Small Nominals both in their semantic interpretation—DPs receive individual reference, while Small Nominals are interpreted as non-individuated groups—as well as in their agreement-triggering possibilities. According to Pereltsvaig (2006), quantified nominals, such as *pjat' izvestnyx aktërov* ‘five famous actors’ can be either DPs or Small Nominals, with a corresponding difference in semantic interpretation. In (560), the quantified nominal is a plural DP; as such, it receives individual reference and triggers plural agreement. In (561), the quantified nominal is a Small Nominal; it is interpreted as a non-individuated group and triggers default third person, singular, neuter agreement.

(560) *V ètom fil'me igrali [pjat' izvestnyx aktërov].*
 in this film played.PL five famous actors
 ‘Five famous actors played in this film.’ (Pereltsvaig, 2006)

(561) *V ètom fil'me igralo [pjat' izvestnyx aktërov].*
 in this film played.NSG five famous actors
 ‘Five famous actors played in this film.’ (Pereltsvaig, 2006)

If it is the case that both DP and bare NP arguments exist in Russian and that they trigger agreement differently, then it is possible that the FCA pattern is related to the difference in the size of the noun phrase, rather than to the level at which conjunction takes place. Under this analysis, two conjoined

DPs always trigger plural agreement, while two conjoined NPs always trigger FCA.²⁶

This idea is plausible: in corpus data, animate QPs are more likely to trigger verbal agreement than inanimates (Graudina et al., 1976). This could be interpreted to mean that animate entities are more likely to have an outer DP layer and inanimates are more likely to lack it. This would be consistent with an analysis in which conjoined DPs trigger plural agreement while conjoined NPs trigger singular agreement—it would correctly predict that animate entities are more likely to trigger plural agreement than inanimate entities when they are conjoined. This analysis can also explain some of the data in Section 4.4.3: if two Small Nominals were conjoined, they would not be able to appear with collective predicates or modifiers like *vmeste* ‘together’ because they would not have individual reference.

This analysis predicts that FCA should be impossible when the conjoined nominals are full DPs. In order to try to force the nominals to be full DPs, one can add overt demonstratives, as in (562), or genitive possessives, as in (563) and (564). Plural agreement is expected in any case; under this analysis, singular agreement should not be possible, contrary to observation.

(562) *Na stole stajali/stojal ètot stakan i tot*
 on table stood.PL/MSG that.MSG.NOM glass.MSG.NOM and this.MSG.NOM
kuvšin.
 jug.MSG.NOM
 ‘On the table stood this glass and that jug.’

(563) *Na stole stojali/stojal ego stakan i eë kuvšin.*
 on table stood.PL/MSG his glass.MSG.NOM and her jug.MSG.NOM
 ‘On the table stood his glass and her jug.’

²⁶ Here I should note, however, that FCA is not always neuter. In order for this analysis to work out, one would have to propose a reason why FCA can be masculine, feminine, or neuter, while agreement with Small Nominals like quantified nominals is always the default neuter.

- (564) *Na stole stojali/stojal stakan Vera i kyvšin Daši.*
 on table stood.PL/MSG glass.MSG.NOM Vera.GEN and jug.MSG.NOM Dasha.GEN
 ‘On the table stood Vera’s glass and Dasha’s jug.’

In such examples, FCA is possible even with the extra overt material. Similarly, adjectival possessives, as in (565), quantifiers, as in (566), and numeral quantifiers, as in (567), are also compatible with FCA.

- (565) *Na stole stojali/stojal mamin stakan i papin*
 on table stood.PL/MSG mom’s.MSG.NOM glass.MSG.NOM and dad’s.MSG.NOM
kuvšin.
 jug.MSG.NOM
 ‘On the table stood Mom’s glass and Dad’s jug.’

- (566) *Na stole stojal každyj stakan i každaja vaza.*
 on table stood.MSG each.MSG.NOM glass.MSG.NOM and each.FSG.NOM vase.FSG.NOM
 ‘On the table stood each glass and each jug.’

- (567) *Na stole stojal odin stakan i odna vaza.*
 on table stood.MSG one.MSG.NOM glass.MSG.NOM and one.FSG.NOM vase.FSG.NOM
 ‘On the table stood one glass and one vase.’

Finally, the nominals in an FCA construction can be proper names, generally taken to be full DPs, as in (568) and (569).

- (568) *Zdes’ naxodjatsja/naxoditsja Novgorod i Pskov.*
 here is.located.PL/3SG Novgorod.MSG.NOM and Pskov.MSG.NOM
 ‘Novgorod and Pskov are located here.’

- (569) *V polnoč’ v nočnom nebe pojavilis’/pojavilsja Mars i Saturn.*
 at midnight in night sky appeared.PL/MSG Mars.MSG.NOM and Saturn.MSG.NOM
 ‘At midnight, in the night sky, Mars and Saturn appeared.’

On the basis of such examples, I conclude that the nominals in FCA constructions can be full DPs, not just Small Nominals. The agreement pattern, therefore, is not a result of the size of the nominal that is conjoined, but of the height of the conjunction.

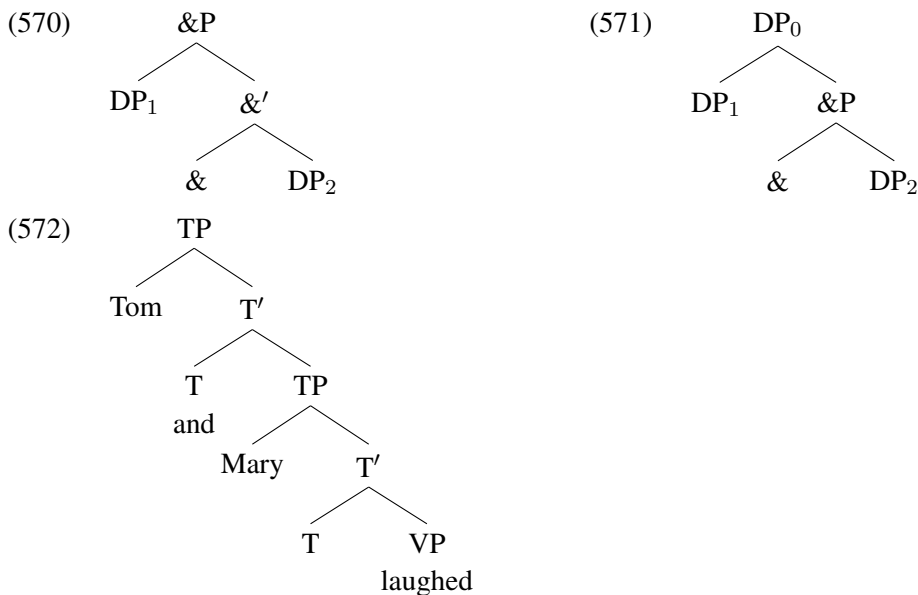
4.6 Russian FCA in crosslinguistic perspective

While this chapter has focused primarily on FCA in Russian, FCA is widely attested across languages: it occurs in dialects of Arabic (Aoun et al., 1994, 1995; Munn, 1999), dialects of Dutch (Van Koppen, 2005, 2012), English (Sobin, 1997, 2014; Schütze, 1999), Biblical Hebrew (Doron, 2000), Hindi-Urdu (Benmamoun et al., 2009; Bhatt & Walkow, 2011), Irish (McCloskey, 1986), Brazilian Portuguese (Munn, 1999), Serbo-Croatian (Bošković, 2009, 2010), Spanish (Camacho, 2003), and Tsez (Benmamoun et al., 2009), among others. And we have seen that FCA in Russian does not have exactly the same distribution as in other languages, such as, e.g., varieties of Arabic (as discussed in Sections 4.3.2 and 4.4). We might ask, then, what factors would contribute to FCA behaving differently, or having a different distribution, across languages? In other words, what elements that contribute to the behavior of FCA do we expect to be the same across languages, and what elements do we expect to vary?

I begin with a description of factors that I claim are *not* responsible for variation with respect to FCA. Two factors that should be considered universal are the structure of coordination and the mechanism underlying predicate-argument agreement. These factors should not be subject to language-specific variation, and they should therefore not be responsible for the variation in how FCA is manifested across languages.

The first universal factor that I consider is the structure of coordination itself. I argue in Section 4.4.4 for a particular structure for coordination in Russian, but other structures have been proposed for coordination across languages (see Section 4.3.1). Progovac (1998a) identifies four families of hypotheses concerning the structure of coordination; under each of these families of hypotheses, the coordinator & serves as the head of a phrase. Under hypotheses of type (a), individual conjuncts

are specifiers and complements of &P with recursive complements. Under hypotheses of type (b), conjuncts are specifiers and complements of &P with recursive specifiers. Both of these families of hypotheses assign the same structure to a coordinate structure with two conjuncts: the tree in (455), repeated below as (570), is a representation of this kind of structure. An alternative possibility, which I argued for in Section 4.4.4, is (c) conjuncts are attached via adjunction, as represented in (456), repeated below as (571). Finally, under hypothesis (d), conjunctions are treated as heads, but they are heads that do not project an &P. In this dissertation, I have not explored this structure for coordination, represented in (572), as it does not work to explain FCA in Russian; however, see Camacho (2003) for an analysis of Spanish FCA that makes use of this structure.



Despite the existence of competing hypotheses concerning the structure of coordination, within generative literature it is generally assumed that the structure of coordination is identical, both across different types of phrases that may be coordinated, as well as across languages.²⁷ That is,

²⁷ Some analyses assign distinct structures to instances of “symmetrical” and “asymmetrical” coordination. In the latter type of coordination, the semantic interpretation of the second conjunct is dependent on that of the first conjunct, and, as Ross (1967, 168) points out, the Coordinate Structure Constraint can be violated in such sentences, as in *Here’s the whisky which_i I [[went to the store] and [bought t_i]]*. See Neeleman & Tanaka (2020) and references therein for a recent discussion of the various structures that have been proposed to account for asymmetrical coordination. Nevertheless, generative analyses typically assign the same structure to all instances of symmetrical

the structure of coordination is assumed to be universal. This need not necessarily be the case—it is possible to imagine that different languages assign different structures to coordinated phrases.

However, in addition to being a theoretically inelegant possibility, this situation seems unlikely; across languages, coordinated phrases share enough of the same properties that it is reasonable to assign them the same structure. For example, the Law of Coordination of Likes states that two elements may be coordinated only if they are of the same syntactic category (Chomsky, 1957; Williams, 1978); while there are systematic exceptions to this generalization, it seems to apply equally across languages (Camacho, 2003). Additionally, it is generally agreed that the first conjunct in a coordinated structure *c-commands* the second and any subsequent conjuncts (Collins, 1988a,b; Munn, 1993, 1999); while not every researcher agrees with this generalization (see Progovac, 1997), evidence for it is attested in many distinct languages. To the extent that these generalizations are universally applicable, they suggest that coordinated phrases are assigned the same structure across languages. We should therefore expect variation in agreement behavior in the context of coordination to be due to other factors.

In the same vein, the mechanism that underlies predicate-argument agreement should be considered universal, and therefore should not be considered a factor in how FCA differs across languages.²⁸ While I cannot hope to do justice here to the vast literature on how (or where, or when) agreement takes place (but see Section 4.3.1 for a standard account), I can point out that generative literature assumes that the agreement operation works the same way across languages. That is, I follow standard assumptions in this respect, and conclude that differences in the distribution of FCA across languages cannot be due to differences in how the mechanism underlying predicate-argument agreement operates.

So what factors can influence the distribution and behavior of FCA across languages? One major potential locus of variation is the size of the coordinated phrase involved in FCA, and the

coordination across different phrase types and across languages.

²⁸ At least not for FCA involving predicate-argument agreement. I do not make any claims about the extent to which FCA involving predicate-argument agreement should parallel FCA involving modifier-noun concord. See, e.g., Wechsler & Zlatić (2003) and Baker (2008).

discussion of the size of the coordinated phrase brings up other language-specific factors that can also determine whether FCA arises in a language and what its distribution is. I have argued above that FCA in Russian occurs in the context of VP-level coordination, but I have also discussed what it would look like for FCA to involve TP-level coordination (in Sections 4.3.2 and 4.4.1) or coordination at the level of the noun phrase (in Sections 4.3.1, 4.4.2, 4.4.3, and 4.4.4). There is, of course, nothing preventing TPs, AspPs, *v*Ps, DPs, NPs, or phrases of any other size from conjoining with phrases of the same type—the ability for phrases of any size to conjoin should, too, be considered universal across languages—but whether such structures result in FCA depends on independent, language-specific factors.

For example, consider again the case of closest conjunct agreement in Hindi, described in Section 4.2. Under Bhatt & Walkow's (2011) analysis, closest conjunct agreement in Hindi occurs with direct objects because *v* assigns accusative case to the direct object, checking the ϕ -features on the conjoined direct object DP as it does so. This prevents T from valuing its ϕ -features with the conjoined direct object DP in the syntax proper; it must instead value its features at PF, potentially leading to agreement with the linearly closest conjunct. This situation never arises in Russian for the simple (and language-specific) reason that the Russian verb only ever agrees with nominative arguments. That is, both Hindi and Russian allow the conjunction of two DPs, but the ability or inability of the verb to agree with an accusative-marked DP determines whether or not FCA will surface.

Other language-specific factors also play a role in whether FCA is possible in the context of noun phrase coordination. For example, I proposed in Section 4.4.4 that Russian requires that the specifier of TP be filled, potentially via covert movement (which I motivate in the general context of Russian nominative arguments in Section 2.5). In the context of noun phrase coordination, DP₁ cannot move to the specifier of TP (even covertly) because doing so would violate the first clause of the Coordinate Structure Constraint. This in turn would mean that the EPP requirement on T is not satisfied. The upshot of this is that the EPP requirement on T essentially prevents FCA in the context of noun phrase coordination. Other languages, however, have been proposed to display

FCA in the context of noun phrase coordination; my analysis therefore predicts that such languages do not have an EPP requirement on T.

Indeed, there is preliminary evidence in favor of this prediction. Doron (2000), working with VSO languages and languages that allow some VSO clauses, such as Biblical Hebrew, Standard Arabic, Irish, Spanish, and Greek, takes the noun phrases in first conjunct agreement constructions in these languages to be immediately conjoined, forming a larger nominal (that is, a DP_0 constituent). She argues that first conjunct agreement in these languages appears in exactly the circumstances described above—FCA appears either when the language has no EPP requirement on T, or when the EPP requirement on T is satisfied by an expletive. She argues, following McCloskey's (1986; 1996; 1997) work on Irish VSO order, that the subject in VSO clauses does not move to the specifier of TP. The difference between languages like Russian and languages like, e.g., Biblical Hebrew, then, is that in Biblical Hebrew, there is no syntactic element present in the specifier of TP when FCA is present, but in Russian, there is.

However, further evidence is necessary to determine whether the prediction is borne out. My proposal predicts that, when FCA is present in the context of immediately conjoined noun phrases, then the nominals cannot have moved, *potentially covertly*, to the specifier of TP. Looking again at Doron's (2000) VSO clauses where the S argument triggers FCA, the S argument is taken to be pronounced in a position below the specifier of TP. My proposal predicts that the S argument is not only pronounced in that low position, it also does not move covertly from that position. In order to test the prediction, it would be necessary to determine (a) whether covert movement to the specifier of TP is allowed in such languages at all, (b) what properties hold of a covertly moved subject (see Section 2.5), and (c) whether those properties hold of the subject when FCA is present. Alternatively, as my analysis rests on upholding the first clause of the Coordinate Structure Constraint (in Russian), one could propose that the Coordinate Structure Constraint is not universally applied across all languages (for a discussion of the separability of the two clauses and their crosslinguistic applicability, see Section 4.4.4 and references therein). If one were to find a language with FCA in the context of coordinated noun phrases *and* a well-motivated EPP requirement on T, then one

might expect to find evidence of widespread violations of the first clause of the Coordinate Structure Constraint in that language.

On the basis of this discussion, then, one could say that the size of the coordinated phrase involved in FCA varies across languages, and that the ability of FCA to appear in the context of phrases of various sizes depends a great deal on independent properties of the language—such as the ability of the verb to agree with nouns marked with particular cases, the ability of arguments in the language to move covertly, the presence or absence of an EPP requirement on T in the language, and possibly the applicability of each part of the Coordinate Structure Constraint in the language. I leave these remaining questions open to future research on FCA.

4.7 Conclusion

In this chapter, I have argued for a particular syntactic analysis of FCA in Russian. I have shown that FCA in Russian cannot be completely reduced to or explained by linear order, but instead is dependent on hierarchical syntactic relationships. I have argued that the FCA pattern appears only when two or more verb phrases are conjoined, rather than two or more noun phrases, and that this structure is better able to explain some of the unusual properties of FCA in Russian, such as being triggered only by internal arguments and never appearing with collective predicates. While some versions of a noun phrase conjunction analysis can account for some of these properties, the analysis presented here provides better empirical coverage. At the same time, it improves upon the clausal coordination analysis that has fallen out of favor in recent years, showing that the phenomena descriptively referred to as FCA are unlikely to have the same analysis crosslinguistically. I have attributed the variation in FCA patterns crosslinguistically to independent properties of languages, such as the presence or absence of an EPP requirement on T, and I have laid out the predictions that my account makes concerning the properties of agreement-triggering noun phrases in other languages in which FCA is possible.

Chapter 5

Conclusion

In this dissertation, I have examined FCA in Russian from multiple angles, using it as a window into issues in the syntax and lexical semantics of Russian and beyond. I have illustrated how this phenomenon speaks not only to intuitively related problems such as the structure of conjunction and its interaction with predicate-argument agreement, but also to questions of broader impact, such as word order variation and argument realization.

The first set of conclusions that I draw concerns the Russian language in particular. In Chapter 2, I outlined several approaches to word order variation in Russian, developing an account of the derivation of sentences with nominative arguments. I argued that word order variation in Russian is the result of syntactic movement; this conclusion is shared by many, but by no means all, researchers working on variable word order in Russian. I adopted the position that nominative arguments of unaccusative and passive verbs are initially merged as complements of the verb and that nominative arguments of transitive and unergative verbs are initially merged in a higher syntactic position, the specifier of *v*P. Having established the base-generated position of nominative arguments, I then turned to the landing site of nominative arguments. In order to do so, I deconstructed several previously proposed diagnostics of “subjecthood” in Russian, in order to determine whether they in fact diagnose a particular syntactic position or whether they are instead sensitive to other properties associated with subjecthood, such as nominative case or agentivity. I argued that some

diagnostics, such as the ability of an argument to bind the possessive anaphor *svoj* in a high position, do in fact point to an argument's occupying the specifier of TP—the analogue of syntactic subject in the Minimalist framework. While these conclusions in themselves are not especially controversial, they are necessary prerequisites for the rest of my analysis of certain word order variants. Namely, I used these diagnostics of syntactic position to support the proposal that nominative arguments, whether they are initially merged internally or externally to the verb phrase, occupy the specifier of TP, even when they are pronounced postverbally—that is, I proposed that postverbal nominative arguments of all kinds move covertly to the specifier of TP. This proposal presents an alternative view to the existing accounts of subject-final word orders ((O)VS and others) in Russian.

The account of covert movement figured in my syntactic analysis of FCA, in Chapter 4, in which I argued that FCA in Russian occurs in the context of two conjoined verb phrases and illustrated how this configuration leads to its unusual distribution. In that chapter, I first showed that FCA in Russian cannot be completely reduced to the linear order of the verb and the apparently conjoined noun phrases, as it may be in other languages; I argued instead that it is dependent on hierarchical syntactic relationships. I next considered the size of the coordinated phrase: most syntactic analyses of FCA in Russian and other languages generally take the conjunction to occur at the level of the noun phrase (NP or DP), while others require that the conjunction occur at the level of the sentence (or TP). The first account is most frequently proposed, but, as I argue, it is nevertheless inappropriate for Russian. In Russian FCA constructions, the apparently conjoined noun phrases cannot form a single syntactic constituent; I argued instead that the phrases are coordinated at the level of the verb phrase. That being said, nothing prevents the two alternative analyses from being potentially appropriate for FCA constructions (or conjunct-sensitive agreement constructions more generally) in other languages; this leaves open the possibility that the phenomenon descriptively referred to as FCA should receive distinct analyses across languages, accounting for variation in its distribution crosslinguistically.

I also attributed the variation in FCA patterns crosslinguistically to independent properties of the languages under consideration, such as the presence or absence of an EPP requirement on T. Given

the variable word order documented in Chapter 2, it is a matter of open debate whether Russian has an EPP requirement on T and, if it does, what elements can move to the specifier of TP to satisfy it. I argue in Chapter 4 that, in an FCA construction, the first of the apparently conjoined noun phrases moves covertly to the specifier of TP to satisfy the EPP requirement on T; this covert movement allows the nominative argument to bind a high anaphor *svoj*. In this way, the analysis of FCA comes to bear on the question raised in Chapter 2; under my analysis, Russian does have an EPP requirement on T, and it can be satisfied by the covert movement of a nominative argument to the specifier of TP.

The second set of conclusions that I draw moves beyond Russian. As I point out in Chapter 4, the covert movement of the first of the apparently conjoined noun phrases in Russian FCA constructions is a violation of the second clause of the Coordinate Structure Constraint. I defend this analytical commitment, showing that the second clause of the Coordinate Structure Constraint is weaker than the first, able to be violated both in unrelated constructions in Russian, as well as in analogous structural configurations in other languages, such as English. It appears that the first clause of the Coordinate Structure Constraint, by contrast, cannot be violated; indeed, this clause prevents the covert movement of the first noun phrase that is immediately conjoined to another noun phrase. The analysis of FCA in Russian thus helps determine what constraints there may be on movement out of a coordinated structure.

Moving to the syntax-semantics interface, FCA in Russian comes to bear on the problem of variable unaccusative/unergative behavior, and, even more generally, the problem of argument realization. In Chapter 3 I investigated the behavior of FCA and the genitive of negation construction, both of which are said to be sensitive to syntactic unaccusativity. I used evidence from these and related phenomena to argue against the proposal that there are two lexically defined classes of intransitive verbs, unaccusatives and unergatives. I also argued against proposals that animacy, agentivity, or related semantic factors directly influence the availability of these phenomena sensitive to unaccusativity. Instead, I proposed a more elaborate system, in which a happening in the real world is construed as an event of a particular type, meaning that it is associated with an event structure. The

event structure, which consists of a verb root and an event schema, comes to be associated with a morphosyntactic frame, or a syntactic structure. Crucially for me, a single verb root can be compatible with more than one event schema, meaning that a single verb root can appear in more than one syntactic structure. This leads to one verb being at times compatible with FCA and the genitive of negation and at other times being incompatible with them. I argue that factors like animacy and agentivity reflect properties of happenings in the world, which can influence how the happening is linguistically construed as an event. Because these factors influence which event schema is associated with the verb root, they indirectly influence which syntactic structure ultimately surfaces. In the end, this system is not only able to account for the distribution of FCA and the genitive of negation in Russian, but it also explains how variable unaccusative/unergative behavior arises across languages, and it provides insight into how a verb and its arguments come to be realized.

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