Quantifier Scope and Scope Freezing in Russian

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Abstract of the Dissertation
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This dissertation supports a view of Russian as a QR language of the English variety, together with the general nuanced picture of Bobaljik and Wurmbrand (2012), wherein there is no "QR parameter" sorting languages as scope frozen vs. scope fluid; rather, scope freezing is a property of constructions. Russian, I argue, shows the same contexts of scope fluidity as those in English, but also exhibits a previously unnoticed wide range of contexts where scope is indeed frozen. I propose a theory of scope freezing that relies on a key empirical generalization drawn from the data:

SF Generalization: *Scope freezing results when one QP raises over another to a c-commanding position as a result of a single instance of movement.*

The one thing unifying all scopally frozen cases in Russian, I argue, is the presence of overt raising of a structurally lower QP across a higher one. Scope freezing itself I analyze in terms of a Relation $\mathfrak{R}$, established directly between the two QPs as the result of this overt raising operation. Thus unlike previous theories of scope freezing, my account proposes that in scope freezing cases there exists a special relation between the two QPs themselves, similar to that existing between the two QPs in an inversely linked structure, or a binding relation. I propose a possible formalization in the spirit of Stanley and Szabó (2000) and Stanley (2002) whereby nominal restriction of the lower QP is associated with a domain variable bound by the higher QP. This binding relation established due to overt crossing of QPs is what precludes the now structurally lower QP1 to raise past QP2, thus accounting for the relative nature of scope in scope freezing contexts. The SF Generalization, which is shown to be very robust, has important consequences for the Russian VP-internal argument structure debate: it suggests that Russian ditransitives are not a homogeneous group, with one argument always projected higher than the other; instead, they are subdivided into distinct classes. The detailed picture of Russian scope and scope freezing discussed in the thesis has important implications for cross-linguistic investigation of quantifier scope. It suggests that other languages may also have been misclassified into the "scopally-frozen" class.

To my son, Mishka Yudin.

CHAPTER 4. RUSSIAN DITRANSITIVE VP: SCOPE FREEZING AND ARGUMENT STRUCTURE

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CHAPTER 1. INTRODUCTION

"Не уходи смиренно в сумрак вечной тьмы…"

1.0 Introduction

Since Frege's initial insight into natural language quantification[1], followed by important advances made in Montague (1974) on how to bring the syntax and the logical form of quantificational sentences into close alignment with each other, the real breakthrough in our understanding on how to treat quantificational sentences *from the syntactic point of view* was due to May's seminal works (1977, 1985)[2],[3]. Thanks to May's work in particular, we now know that quantifier scope ambiguities in doubly quantified sentences, for instance, are the result of a covert operation of Quantifier Raising (henceforth, QR), and/or a lowering operation that puts the raised Quantifier Phrase (QP) back in its original position[4],[5]. An example of a scopally ambiguous sentence in English is provided in (1) below:

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[1]Frege's insight was that quantifiers are operators prefixed to an open sentence, binding a variable inside it.

[2] Partee (2014) notes that the "Garden of Eden" state in linguistics when there was a temporary state of general agreement among linguists on the relatively straightforward relation between syntax and semantics ended when "linguists discovered quantifiers", with May's work following in the footsteps of the advances made in Bach (1968), Karttunen (1968), (1969), Lakoff (1968) and McCawley (1971).

[3] As discussed in Dayal (2012), the following are the main principles that constitute the contribution of May's (1985) work to our understanding of the syntax of quantification:

(i)   a. **The Condition on Quantifier Binding**: Every quantified phrase must properly bind a variable.
        b. **Condition on Proper Binding**: Every variable in an argument position must be properly bound.
        c. **C-command**: α c-commands β iff every maximal projection dominating α dominates β, and α does not dominate β.
        d. **Scope Principle**: Mutually c-commanding quantifiers can take scope in either order.

[4] I will adopt the definition of scope given in Szabolcsi (1999): The scope of an operator is the domain within which it has the ability to affect the interpretation of other expressions (i.e., quantifiers, negation, intensional verbs, Negative Polarity Items).

(1)   a. Some boy loves every girl.
        b. (some > every): there is a boy x such that x loves every girl in some relevant set of girls.
        c. (every > some): for every girl x in some relevant set, x is loved by some boy or other.

There are two possible interpretations for this sentence. On the first one, spelled out in (1b), the QP *some boy* is said to have scope over *every girl*. This is the so-called *surface scope interpretation*, since it corresponds to the surface order of the two QPs that is determined by c-command. In the second interpretation, commonly referred to as the *inverse scope*, provided in (1c), the QP *every girl* is said to have scope over the subject QP *some boy*. It is primarily the availability of interpretations such as this latter one that is generally believed to arise through a covert operation Quantifier Raising that brings the structurally lower QP *every girl* to a high enough position from which the QP can c-command and thus have scope over the subject QP *some boy*. May has argued that this operation applies at a separate level of syntactic representation, called Logical Form (henceforth LF) that is derived through the application of operations such as QR, and at which the sentence is interpreted compositionally. The arguments for the existence of the operation of QR are thus generally taken to be arguments for the existence of LF as well.

Being a movement operation, QR is expected to be constrained by principles that constrain overt movement as well[6]. But while there seems to be some agreement in the field regarding the syntactic constraints the covert operation of Quantifier Raising obeys within a language, especially in well-studied languages such as English, such agreement on or understanding of what principles regulate QR and its seeming (un)availability and/or properties from a cross-linguistic perspective is yet to be achieved. In this Introductory Chapter I will thus review what is currently known about within-language constraints on QR, discussing evidence from languages such as English, where the facts have been well-studied and seem to be reasonably well-established at this point, and will then turn to discussing what conclusions about QR have been reached by turning to other languages and thus examining this covert movement operation from a cross-linguistic perspective. At the end of Chapter 1, I will provide a brief overview of the rest of the thesis and will state what I think the study of quantification in Slavic languages, most notably Russian (with a brief excursus into Ukrainian, as well as other Slavic languages), tells us about grammatical constraints on QR across languages, as well as about the specific insights gained into what constraints operate on QR in Slavic languages, which

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[5] Arguments have been made that the position the subject QP lowers into is not, in fact, its original position, but rather is an intermediate one that is higher than its original position in the Specifier of vP, which means QR of the object to some higher head is still required in order to gain scope over the lowered subject QP (Johnson and Tomioka 1997).
[6] Most of the arguments for QR being a movement operation that obeys familiar constraints on overt movement, knowngm in the literature, will be presented in Chapter 2.

are known for their ability to rather freely displace constituents through the overt movement operation of Scrambling (Bailyn 1995).

1.1 Grammatical Constraints on QR within a Language

1.1.1 Locality/Clause-Boundedness/Islandhood

May's insight that scope ambiguities are derived by means of a movement operation finds its support in the fact that, just as is the case with other syntactic movement operations, QR is subject to most of the same restrictions on movement that constrain overt operations such as wh-movement, for instance. Thus, as demonstrated in Rodman (1976), inverse scope is prohibited in (2b), but allowed in (2a):

(2)   a. There is a bone in every corner of the room.   (every > a)[7]
        b. There is a bone, which is in every corner of the room.   *(every >a)

Such a contrast in scope is expected, if the covert raising operation brings the lower universal QP in (2a) to a position above the existential covertly, but if a locality constraint prohibits the same instance of movement in (2b) due to the QP being inside a complex DP (which serves as an island for movement purposes)[8].

      The correlation that exists between QR and overt wh-movement in English was one of the strongest initial arguments for postulating this operation in the first place. Thus, as discussed in Reinhart (2006), the parallelism between QR in (3) and wh-movement in (4) extends all the way to minute details. Specifically, the availability of inverse scope in each sentence in (3) correlates with the possibility of overt wh-movement from the exact same syntactic position in (4):

(3)   a. A doctor will interview every new patient.   (Reinhart (2006))
        b. A doctor will try to assist every new patient personally.
        c. A doctor will make sure that we give every new patient a tranquilizer.

(4)   a. Which patients will a doctor interview *e*?
        b. Which patients will a doctor try to assist *e* personally?
        c. Which patients will a doctor make sure that we give *e* a tranquilizer?

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[7] Following conventions in Szabolcsi (1999) and other works, in marking a particular scope for a sentence, as in (2a), for instance, I am not making any claims about what other scopes may or may not be available for the sentence in question. Thus, in (2b), I've marked the inverse scope as unavailable but the fact that the surface scope is not indicated for this sentence is not meant to imply that this reading is not available either (it is).

[8] An island is a structural configuration out of which movement is impossible.

Contrast the above with the sentences in (5) and (6). Here, Reinhart notes, wh-movement is blocked by the presence of a syntactic island in each case. Correspondingly, inverse scope, or the interpretation on which the doctors can vary with the patients, is unavailable as well:

(5)   a. A doctor will examine the possibility that we give every new patient a
        tranquilizer. *(every > a)
        b. A doctor should worry if we sedate every new patient. *(every > a)

(6)   a.*Which patients will a doctor examine the possibility that we give *e* a
        tranquilizer?
        b.*Which patients should a doctor worry if we sedate *e*?

More examples that demonstrate the same point are provided in Ruys and Winter (2011). Consider the pairs of sentences below:

(7)   a. Some inhabitant of every midwestern city participated. (every > some)
        b. Someone who inhabits every midwestern city participated. *(every > some)

(8)   a. Which city$_i$ did you meet inhabitants of t$_i$?
        b * Which city$_i$ did you meet people who inhabit t$_i$?

The example in (7a), an instance of the so-called Inverse Linking construction, clearly allows the inverse scope interpretations. The (b) example, however, only allows the pragmatically weird interpretation on which there is a person such that that person inhabits every city and that person participated. This is the surface scope interpretation. The fact that this reading is pragmatically implausible serves to underscore that it is indeed the only interpretation available, as the context here is favorable to the inverse scope interpretation, yet it is unavailable nevertheless. What is crucial here, however, is comparing the scope contrast in (7) to the behavior of wh-movement in (8). In (8a) we see that the wh-phrase originates in the same syntactic position the lower QP in (7a) does, and wh-movement of this phrase is available. In (8b), on the other hand, moving the wh-phrase outside the relative clause it is contained in is impossible. Correspondingly, raising the lower QP from a relative clause in (7b) is impossible as well, accounting for the lack of the expected inverse scope interpretation.[9]

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[9] Ruys and Winter (2011) provide more examples demonstrating the same basic point:

(i)   a * Which man$_i$ will you inherit a fortune if t$_i$ dies
        b You will inherit a fortune if every man dies *(every > if)

(ii)   a. * What$_i$ did John hiss that Smith liked t$_i$
        b John hissed that Smith liked every painting *(every > hiss)

Such parallelism between covert QR and overt wh-movement provides strong initial support in favor of conceptualizing (inverse) scope relations as being derived via movement[10]. The premise that QR is a movement operation just like any other instance of movement, only covert, implies, of course, that QR should observe *all* the constraints the overt movement obeys. This, however, is not the case. As will be discussed in this and the next section, there are two key respects in which QR differs from overt wh-movement: it is (mostly) clause-bound and it (mostly) disrespects Subjacency. Thus, the study of the locality restrictions on QR has shown that quite generally, QR of a universal QP out of its (finite) clause is prohibited[11]:

(9)   A critic thinks that every book is readable.   (Szabolcsi (1999))
        *(every > a): for every book, a possibly different critic thinks that it is readable.

As noted in Szabolcsi (1999), the restriction demonstrated in (9) (as well as the contrasts noted between (3) and (4) on the one hand and (4) and (5) on the other, for instance) point once again to "the syntactic nature of the abstract structure created for the purposes of disambiguating scope" (Szabolcsi (1999): 8). The parallelism between QR and wh-movement noted above breaks down, however: the clause-bounded nature of QR is a

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(iii)   a. * Who$_i$ did you see [John's picture of t$_i$]
         b. I saw [John's picture of everyone] *(everyone > see)

As the authors note, both if-clauses and verbs such as *hiss* constitute islands for wh-extraction; correspondingly, inverse scope, or wide scope for the universal QP is unavailable as well. (iii) demonstrates the Specificity constraint, according to which a definite NP, especially one that has an overt subject (such as John), serves as an island both for wh-movement and for Quantifier Raising.

[10] As observed in Ruys and Winter (2011), the fact that scope islands and islands for overt movement coincide, as well as an account of QP scope in terms of a movement rule was originally discussed before the QR theory of May (1977) in Lakoff (1970).

[11] As noted by Reinhart, given clause-bounded nature of QR, availability of inverse scope in examples such as (3c) is a problem that no one really has a good solution to. Another example, cited by Reinhart, where clause-boundedness is not observed, is (i):

(i)   Lucie believes that every politician is corrupt.

The sentence is argued to have a *de re* interpretation, or scope of the universal QP *every politician* above the intensional verb *believe*, which entails Lucie's belief that Clinton is corrupt, Obama is corrupt, and so on and so on. This interpretation is generally believed to arise by scoping the QP out of its clause, thus violating clause-boundedness.

Such examples are therefore currently treated as an exception, rather than the rule, Reinhart says, for the simple reason that examples where QR obeys the clause-boundedness constraint are plainly more common. The alternative, of course, would be to treat (3c) and (i) as the rule and the clause-bounded examples as the exceptions with extra limitations on them that need to be explained. The choice either way is a theory internal matter, with the definitive solution to this puzzle probably yet to be found.

rather idiosyncratic property of the operation, as wh-movement, which, as Szabolcsi puts it, is "the most like-minded" operation, is not constrained in the same way:

(10)   What books does a critic think are readable?
         `what books are such that possibly different critics think they are readable'

Moreover, the problem is further complicated by the fact that the clause-boundedness restriction is not absolute (see example (3c), a violation of the clause-boundedness restriction on QR) and the conditions under which it may be violated are not well understood at this point. As Reinhart (2006) notes, "Scoping strong quantifiers out of their clause seems even harder [than scoping them above the higher QP inside their own clause] and, in fact, we do not know precisely when and why it is possible" (Reinhart 2006: 62). She then continues, "…it appears that various factors affect the ease of scoping a strong quantifier out, rather than just a syntactic clause-boundedness restriction."[12],[13].

1.1.2 Subjacency

As noted above, Subjacency is another constraint that presents a problem for our understanding of QR as just another movement operation, albeit covert. The Subjacency constraint was first proposed in Chomsky (1973), in part as an attempt to subsume some of the island constraints proposed in Ross (1967). Subjacency is taken to be an abstract syntactic principle aimed at accounting for all or almost all Island conditions, roughly defined in terms of the number of bounding nodes that a moving phrase may cross. Most accounts stipulate which syntactic nodes (S, NP, CP, DP) and/or combination of nodes

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[12] As far as I am aware, there is currently no account that can explain *all* instances of the clause-boundedness restriction on QR or the occasional exceptions to such clause-boundedness, for that matter. Fox's (1995, 2000) account is able to explain the cases where QR across a finite clause boundary is possible (such as those where a QP from the lower clause can QR over a wh-word in the Spec, CP position of its clause, an operation allowed by his Scope Economy Principle. This then allows the lower QP to interact with the QP in the higher clause if this new instance of QR is also allowed by Scope Economy and is Local enough in the sense defined in Fox (1995, 2000)). An example like this from Fox is discussed later in the chapter. However, as far as I can tell, even Fox's account cannot explain why examples such as (3c) are grammatical (i.e., not subject to the general clause-boundedness restriction on QR).

[13] As noted in Chomsky (1975), if QR is clause-bounded, all the evidence in favor of the QR approach that is derived from observations of parallel behavior between overt wh-movement and QR in island contexts becomes inconclusive. Indeed, scoping out of an island then becomes impossible not due to QR being constrained in ways overt movement is, but trivially because it simply cannot move the QP out of its clause. One objection to this challenge is discussed in Ruys and Winter (2011). As they note, this challenge is countered by the observation that clause-boundedness of QR is both "too restrictive and too permissive" to be an adequate theory of quantifier scope: sometimes QR is constrained in a structure that is smaller than the containing clause whereas in some other cases QR can indeed scope out of the clause, especially if it is non-finite.

constitute barriers to movement that result in an Island violation. Formally, it is defined in the following way:

(11) **Subjacency** (Chomsky 1977)

No rule may move an element from the position Y to the position X

……...X……[$_\alpha$…….[$_\beta$……Y……]…..X…..

where α and β are bounding nodes.

Bounding nodes in English are argued to be DP and CP. Crossing two bounding nodes is thus usually taken to constitute a Subjacency violation. In those cases where it looks like the movement in unbounded, it is argued to never actually cross two bounding nodes, with the movement being successive-cyclic, proceeding through the "escape hatch" that is Spec, CP. Only one CP is crossed with each step of successive-cyclic movement[14]:

(12)   a. [$_{CP}$ Who do you believe [$_{CP}$ _ that Mary said [$_{CP}$ _that Sam will visit _]]]?
       b. The person [$_{CP}$ which you believe [$_{CP}$ _ that Mary said [$_{CP}$ _ that Sam will visit_]]].
       c. That man [I believe [$_{CP}$_ that Mary said [$_{CP}$ _that Sam will visit __]]].

As noted in Lasnik (2010), the proper formulation of Subjacency became, and still remains, a major research question[15],[16]. In Minimalism, Subjacency is replaced with phases and the Phase Impenetrability Condition (PIC). As many researchers acknowledge, this rephrasing of the problem has not resulted in new insights or a better understanding of the phenomenon, however[17],[18]. To demonstrate with some examples, consider the following sentences:

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[14] These examples are borrowed from Anagnostopoulou and Fox (course materials).

[15] As noted in Progovac (2009), after nearly forty years of research following Ross' dissertation that discovered most island constraints, no real understanding of the phenomenon of islandhood or Subjacency has been reached. This general problem in part explains why there is no good understanding of the status of Subjacency with respect to QR, as will be shown shortly.

[16] See Huang (1982), Lasnik & Saito (1984), and Chomsky (1986) for the now classic accounts of Subjacency.

[17] **Definition of PIC**: For phase HP with head H, the domain of H is not accessible to operations outside HP; only H and its *edge* are accessible to such operations, the edge being the residue outside H', either specifiers or elements adjoined to HP.

[18] Progovac (2009) provides a possible explanation for why all attempts at characterizing Subjacency in a satisfying way have failed so far. According to her, this is likely due to the fact that most syntactic accounts, including those mentioned in footnote 15 above treat the possibility of Move as the normal state of affairs in syntax, with Island violations being in need of an explanation. However, the opposite view, Progovac argues, is also possible, and has in fact been suggested in a number of accounts. The idea is that Islandhood is the norm, and the possibility of movement needs to be explained. Some support for this view comes from the fact that there are many more constructions that constitute Island configurations, and only a subset of those were

(13)   *Who [$_S$ did [$_{NP}$ pictures of t] please you]?

The ungrammaticality of this movement out of a subject NP is explained as a Subjacency violation, since the wh-phrase crosses two bounding nodes (in Chomsky (1977), NP and S). The problem arises once we consider such examples as (14), where in a similar configuration, which also predicts a similar violation, the sentence is grammatical on the inverse scope reading:

(14)   a. Some inhabitant of every city participated. (every > some)
        b. [$_S$ [$_{NP}$ every city]$_i$ [$_S$ [$_{NP}$ some inhabitant of t$_i$]$_j$ [$_S$ t$_j$ [$_{VP}$ participated]]]]

While this particular problem has been dealt with in many accounts, the Subjacency principle remains a true problem in one area pertaining to quantification: namely the scoping of existentials. Thus, while universal QPs obey most islands in most contexts, indefinite QPs in general provide a much bigger problem in that they generally exhibit island-violating behavior. Consider the following examples due to Reinhart:

(15)   Everyone reported that [Max and some lady] disappeared.
        `there is a lady such that everyone reported that Max and this lady disappeared'

(16)   Most guests will be offended [if we don't invite some philosopher].
        `there is a philosopher such that most guests will be offended if we don't invite
        him/her'

(17)   All students believe anything [that many teachers say].
        `there are many teachers such that all students believe anything they say'

All of the above sentences are ambiguous, which is contrary to expectations if QR and overt movement are indeed to be considered the covert and overt manifestations of the same instance of Move[19]. As noted by many researchers, most notably Szabolcsi (1999)

Move is grammatical. Specifically, Move is argued to be possible only out of (a subset of) complements/objects, such as verbal (non-wh-)complements, clausal (i) or nominal (ii):

(i) Which book did you tell John [$_{CP}$ that Bill bought <which book>]?
(ii) Who did Bill question [$_{NP}$ your loyalty to <who>]?

Progovac thus argues, "…constructions which disallow Move (islands) do not form a natural class, while those that allow Move, do. If so, then any attempt to characterize islandhood/Subjacency in unified terms is doomed to fail" (Progovac (2009): 310).

[19] It should be noted that strong crosslinguistic support for the level of LF came from Huang (1982), a very influential work during the 1980s. On the basis of empirical evidence from Chinese wh-in-situ it has argued that Chinese wh-phrases also undergo wh-raising, only at LF rather than at S-structure, and concluded that such LF movement is immune to subjacency (but is subject to the Empty Category Principle (ECP)). His broader conclusions are the following: "…language families do not differ in whether or not they have a particular movement rule; not do they differ in whether or not they are subject to Subjacency, etc. Rather, languages may be

and Reinhart (2006), the problem posed by the generalization in (18) below, which could be stipulated in earlier stages of syntactic theory, cannot even be stated in the Minimalist framework[20],[21]:

(18)   a. QR is clause-bounded;
        b. QR does not obey Subjacency.

Specifically, in Minimalist terms, there is no way of stating that movement before and after S-structure obeys different constraints, since the level of S-structure no longer exists in Minimalism.

1.1.3 Scope Economy

The third constraint that I would like to bring up in the context of this discussion is Fox's Scope Economy Principle (1995, 2000). Unlike clause-boundedness and Subjacency that present a real problem for our attempts at formulating a general theory of quantification that would fully liken QR to overt instances of (A-Bar) movement, Scope Economy is not really a problem for the theory. Rather, it is a principle, which, if correct, allows us to understand this movement operation a little better. It is also one that makes QR both similar to and dissimilar from overt movement in the following sense: it is similar to overt movement such as wh-movement (or any other feature-driven movement for that matter) in not being "free" in the sense to be elaborated on shortly; and it is dissimilar from overt movement in that no other movement except QR seems to be driven (or at least affected) by semantic considerations.

Simply put, Fox's Scope Economy principle states that a scope shifting operation (such as Quantifier Raising or Quantifier Lowering) cannot be semantically vacuous. This means that QR, for instance, cannot apply in cases where its application will not result in an interpretation that was previously unavailable (i.e., a new scope relation isn't established). Thus, (non-obligatory) QR is argued to not take place in cases such as the following:

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considered to incorporate certain substantive universals and formal conditions, but to differ in where these universal rules apply, in Syntax or in LF." (Huang (1982): 403).

[20] A further complication, of course, if that the two statements of the generalization in (18) apply to different quantifier classes: while universal QPs are known to be clause-bounded, it is existential QPs that disobey Subjacency. This has prompted many researchers to treat exceptionally wide scope of existentials as derived by an alternative in-situ means, known as choice functions, rather than by QR (see Reinhart (1997), (2006) and references therein for a detailed discussion).
[21] Another general complication to the theory of scope that has not been discussed here at all is the finding, due to Beghelli and Stowell (1997) and Szabolcsi (1997) that all quantifiers are not equal in their scope-taking abilities. This conclusion, based on the facts from English, Hungarian, and supported by my own early work on Russian (Antonyuk 2006) makes it strikingly clear that one rule of QR will not be able to account for the totality of quantifier scope facts. For this reason, in their discussion of quantifier scope many researchers limit themselves to discussing the interaction between an existential quantifier such as "some" and a universal such as "every". This is also what I chose to do in this thesis as well.

(19)   a. John loves every woman.
        b. Every man loves every woman.

As the reader may verify, the surface and the inverse scope interpretations for both sentences in (19) are indistinguishable from each other in terms of their truth conditions. Thus, Fox argues, by Economy, the operation of QR whose application is vacuous, as in the above instances, should be prohibited. The obvious importance of Fox's Economy principle is that it puts severe limitations on the operation of QR, saving the theory from overgeneralization and thus bringing it in closer alignment with empirical data[22].

Another merit of Scope Economy is that it can potentially provide an explanation to the otherwise poorly understood clause-boundedness restriction on QR, demonstrated again in (20):

(20)   a. One girl said that every boy is a genius.   *(every > one)
        b. One girl said that John talked to every boy.   *(every > one)

As seen from the examples, the universal QP in the lower clause in unable to scope out of its clause, even though doing so would allow it to obtain a scope relation that was previously unavailable (by scoping over the matrix subject QP). We have noted already that in being clause-bounded QR differs from other types of A-Bar movement, such as wh-movement. Fox argues, however, that QR is indeed like other types of A-Bar movement, and if so, it must also be successive-cyclic. The only difference is that it is driven by semantic considerations, while overt A-Bar movement is driven by feature-checking considerations. In his account of Scope Economy, Fox has argued that Economy can evaluate derivations in a very local manner, computing semantic effects of QR within the minimal clause that contains the QP in question. If that is indeed the case, then it is clear why (20a), for instance, is unambiguous: QR within the clause that contains the universal QP *every boy* would be semantically vacuous and is thus prohibited; a semantic effect would be achieved only if QR was applying in one big instance of movement bringing the lower QP above the higher one in the matrix clause. The locality or successive-cyclic nature of QR, however, prohibits such long QR. Applying this logic to the famous examples from Moltmann and Szabolcsi (1994) provided in (21), Fox derives very interesting results. The prediction of the above account of Economy, as Fox notes, is that "clause-boundedness should be obviated in cases where there is semantic motivation for each step in successive cyclic movement". This

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[22] Fox discusses a wide range of otherwise mysterious empirical facts (such as scope in ellipsis contexts) that receive an elegant explanation on his account and thus serve to support it. Much of these data will be discussed further in the thesis, so I will not bring them up here.

prediction is indeed borne out, as the data in (21) demonstrate:

(21)   a.   One girl knows that every boy bought a present for Mary.   *(every > one)
        b.   One girl knows what every boy bought for Mary.   (every > one)

The example in (21a) is unambiguous just as all the other cases of clause-bounded QR we have observed in this chapter. However, the sentence in (21b) surprisingly allows the inverse scope or the wide scope for the lower, universal QP. Fox explains this as follows: QR of the universal to a position above the wh-word brings about the pair-list interpretation and is thus semantically non-vacuous, which means Economy considerations allow this instance of QR to take place. Once the universal QP has reached the matrix clause, it is then free to scope over the matrix subject QP, since this instance of QR would also be semantically motivated (it would derive a new scope interpretation). The conclusion to be drawn from this account then, is that QR (of universal QPs) is indeed like over instances of A-Bar movement in that it is constrained by the same principles that constrain overt A-Bar movement; another similarity is that all A-Bar movement, QR included, appears to be *motivated*[23]: while overt A-Bar movement is motivated by feature-checking considerations, QR is motivated (and further constrained) by semantic considerations. Finally, as the discussion of the above examples has shown, further similarity lies in the successive-cyclic nature of QR (which is well-known to hold of overt A-Bar movement).

1.2 Grammatical Constraints on QR Across Languages

1.2.1 Scope Rigidity/Isomorphism

More challenges for a general theory of quantifier scope come from considering cross-linguistic data. Ideally, we would want our theory of quantification to account, in a unified way, for the behavior of quantificational phrases in various languages. Specifically, if we postulate QR as a way to account for scope ambiguities in one language, ideally we would want to generalize the account to other languages. This may be more or less straightforward when languages show comparable behavior with respect to quantifier scope, but how do we treat languages that arguably represent scope relations

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[23] Many researchers believe that another instance of A-Bar movement found in a number of languages, namely Scrambling, is an instance of free/unmotivated movement. Various researchers, most notably Bailyn (1995) for Russian and Miyagawa (2003, 2006) for Japanese have argued against such a conclusion, providing evidence that Scrambling, although it is clearly not feature-driven (arguably just like QR, although see Beghelli and Stowell (1997), Szabolcsi (1997) and Bruening (2001) for an alternative view), it is indeed motivated by information-structure considerations and in this respect does not constitute an instance of semantically vacuous movement.

in a radically different way? Consider the following Chinese sentence as an example[24]. While the English sentence in (22) is ambiguous, the counterpart Chinese example in (23), and other examples like it, reported in Huang (1982) and elsewhere are argued to allow surface scope only. To account for the difference, Huang proposes that there is a correspondence relation in Chinese such that if at S-structure QP1 c-commands QP2, the same c-command correspondence relation must hold at LF as well. A similar solution, dubbed Isomorphic Principle, is proposed in Aoun and Li (1989).

(22) Two students read every book.
    a. (two > every): two students x are such that x read every book in some relevant set of books.
    b. (every > two): for every book x, x was read by two (possibly different) students.

(23) You   liang-ge   xuesheng nian-le   mei   yi-ben   shu.
    There is two.CLASSIFIER student   read (PERF) every   one-CLASSIFIERbook
      "Two students read every book"
    a. (two > every): two students x are such that x read every book in some relevant set of books.
    b. *(every > two): for every book x, x was read by two (possibly different) students.

The Chinese data posed for the first time the question of whether there might in fact be two fundamentally different kinds of natural languages: ones like English that allow scopal readings that contravene surface order, and languages like Chinese that forbid scopal readings that contravene surface order.

The period following the "discovery" of Chinese scope rigidity saw three additional important developments. First, a number of other languages were argued to be like Chinese (and unlike English) in showing scope rigidity as the norm. These included Japanese, Korean and a large number of Slavic languages such as Russian and Ukrainian. Other accounts, somewhat similar in spirit, have been proposed for Japanese, another language that has been argued to allow surface scope only in comparable configurations (Rigidity Condition of Lasnik and Saito (1992); Kuroda (1965), Hoji (1985) i.a.). German, too, is another language widely believed to be one in which surface scope obtains in configurations that allow scope ambiguity in English[25]. Numerous examples

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[24] I thank Chih-hsiang Shu (p.c.) for providing the Chinese example and the judgments for it. I am indebted to Jiwon Yun (p.c.) for taking the trouble to talk to a number of Chinese native speakers (linguistics students and assistant professors) to clarify the data and the judgments of Chinese native speakers on this and a range of other scope sentences.

[25] The examples in (24) are borrowed from Sauerland (2003).

such as (24) have led to the widely held belief that scope relations in German are derived without QR, that is, are projected from surface structure (Frey (1993) i.a.):

(24)   a. It surprised Otto that at least one student was reading every book.
          b. Otto hat es uberrascht, das mindestens ein Student jedes Buch am Lesen war.
             Otto has it surprised   that at least   one student every book at reading was

Thus, implicitly or explicitly, it has been argued by many that the difference between languages such as Chinese, Japanese, German (and arguably others, such as Korean) on the one hand and English on the other is a matter of cross-linguistic variation, there being a QR parameter that may be "off" or "on" in a particular language.

Second, it was discovered that rigidity in the set of Chinese-like languages was not absolute; in certain cases rigidity seemed to be relaxed. Thus Hoji (1985) noted that Japanese dative constructions with quantified internal arguments in the order (25a) followed the general pattern of the language and were scope rigid; however the same arguments in reverse order (25b) were found to be ambiguous.

(25) a. QP1-DAT QP2-ACC V   QP1-QP2, *QP2-QP1
      b. QP1-ACC QP2-DAT V   QP1-QP2, QP2-QP1

Similarly whereas Chinese active sentence with quantified arguments (26a) follow the general pattern of the language in being scope rigid, the corresponding *bei*-passives were found to be ambiguous (26b).

(26) a. QP1 V QP2   QP1-QP2, *QP2-QP1
      b. QP1 *bei* QP2 V   QP1-QP2, QP2-QP1

Hoji (1985) and Aoun and Li (1993) advanced similar ideas in analyzing such departures from scope rigidity. Hoji analyzed the order in (25b) as deriving from that in (25a) by a rule of scrambling, which crossed one QP over the other (27a). Likewise Aoun and Li (1993) analyzed *bei* passives as crossing one quantifier over another (27b):

(27) a.. QP1-ACC QP2-DAT QP1-ACC V

              ▲_____┐

      b. QP1 *bei* QP2 V QP1

              ▲_____┐

In each case, it was urged, ambiguity results because one quantifier has been crossed over another. Overt crossing thus seems to "thaw" frozen scope.

Third, it was discovered that fluidity in the set of English-like languages was also not absolute; that in certain cases scope seemed to be rigidified or "frozen".

1.2.2 Against the QR Parameter: Bobaljik and Wurmbrand (2012)

The idea that the difference between Chinese, German, Japanese and Korean on the one hand and English on the other is a matter of parametric variation appears to me to be rather unsatisfactory. It is unsatisfactory in so far as it does not seem to have much explanatory power, but rather just restates the facts using different terminology. As far as I am aware, the existence of this parameter and its status for each of the above languages has not been convincingly shown to be tied to independently observable properties, shared by all the languages that carry the "minus" value on this parameter, for instance. In other words, is there any observable property shared by these languages that would help us recognize them as belonging to the class of surface scope rigid languages? Proposing such a parameter would of course be of theoretical value only if it had any predictive power that would help us determine, by examining the relevant properties of other languages, which group they would belong to in terms of their predicted quantifier scope behavior.

One account that purports to do just that is Bobaljik and Wurmbrand (2012). The account proposes that the property shared by the languages that exhibit surface scope freezing is the availability of overt displacement operations, such as Scrambling. This situation is taken to be a matter of Economy or Optimality built into grammar: if a language possesses the means of expressing scope relations overtly, it should not then be possible, by Economy considerations, to express the same relations by covertly moving the quantifiers as well. Thus, the above languages that appear to be scope frozen all share the property of being Scrambling languages, that is, languages in which overt displacement of constituents is allowed. English, on the other hand, is a language in which there is no Scrambling[26]. Although Bobaljik and Wurmbrand's account shares with the various accounts of quantifier scope in the above-mentioned languages the desire to derive quantifier scope distribution facts from independently observable properties of languages, it is a decidedly non-parametric account. In fact, the authors argue specifically, on the basis of cross-linguistic data coming from languages such as English, German and Japanese, among others, that there cannot possibly be a QR parameter that languages differ on. This conclusion is based on empirical evidence coming from all of the above languages suggesting that QR exists even in languages that have so far been widely believed to be scope frozen[27]. Thus, the idea is that no language can be considered fully scope frozen or fully scope fluid; instead, scope rigidity or fluidity is a property of

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[26] Although see Johnson (2000) for the proposal that English contains at least one operation that is effectively equivalent to Scrambling.

[27] Sauerland (2003) and Sauerland and Bott (2002) have also independently argued against the conclusion of the overall scope rigidity status of German, citing evidence from Inverse Linking and Coordination that strongly suggests QR is indeed available in (some of) these constructions in German. Similar arguments about contexts of non-rigidity can be found in the literature for the other languages discussed above as well (see Bobaljik and Wurmbrand for a detailed discussion of empirical evidence supporting their main conclusion).

constructions, with certain principles and (structural) properties of languages being suggestive of what contexts can be predicted to be scope frozen or scope fluid.

1.3 Russian

Russian takes on particular significance in this theoretical context. As noted above, Russian, Ukranian and other Slavic languages have been argued to be scope rigid, and in fact Russian does exhibit many contexts in which scope is fixed. For example, in the simple transitive (28a) (due to Ionin 2001)[28], in all the ditransitives in (28b-d), in so-called "reflexive montransitive" like (28e), in long distance scrambled sentences like (28f), and in local scrambled sentences like (28f) quantifiers are interpreted unambiguously in their surface order:

(28) a. [Odin mal'čik]   poceloval   [každuju devočku].   (Ionin 2001)
        One boy (NOM)   kissed   every girl (ACC)
        'One/a certain boy kissed every girl'   (∃>∀),*(∀>∃)

      b. Maša potrebovala   [s kakogo-to posetitelja]   [každyj document]
        Masha demanded   [PP from some visitor] (GEN)   [every document] (ACC)
        'Masha demanded every document from some visitor'   (∃>∀),*(∀>∃)

      c Vanja zagruzil [kakoj-to gruzovik][každym vidom sena]
        Vania loaded   [some   truck] (ACC) [every type hay] (INSTR)
        'Vania loaded some truck with every type of hay'   (∃>∀),*(∀>∃)

      d. Maša   nakryla [kakoe-to kreslo]   [každoj prostynej]
        Masha covered [some   chair] (ACC) [every sheet] (INSTR)
        'Masha covered some chair with every sheet'   (∃>∀),*(∀>∃)

      e. Maša   zarazilas'   [ot kakogo-to pacienta]   [každoj bolezn'ju]
        Masha infected (REFL) [from some patient] (GEN) [every illness] (INSTR)
        'Masha got infected with every illness by some patient'   (∃>∀),*(∀>∃)

      f. [Každogo sovetnika **Buša**j]i kto-to   xocet čtoby **on**j   uvolil **t**
        [Every adviser Bush] (GEN) someone (NOM) wants that   he(NOM) fired
        'Every adviser of Bushi, somebody wants himi to fire'   (∀>∃),*(∃>∀)

      g. Maša uverena, čto [kakuju-to šutku]i   [každyj čelovek]   uslyšal **t**i
        Masha sure   that [some joke] (ACC)   [every person] (NOM) heard
        'Masha is sure that some joke, every person heard'   (∃>∀),*(∀>∃)

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[28] As will be discussed in Chapter 2, my judgements and those of numerous speakers I asked differ from Ionin's regarding the unavailability of inverse scope in (28a). The rest of the sentences in (28) are shown to be indeed scope frozen in Chapter 3 of the thesis.

At the same time, as first demonstrated by Antonyuk (2006), Antonyuk-Yudina (2009), (2010/2012)), Russian exhibits clear syntactic evidence for the presence of the QR operation responsible for scope ambiguity in English and related languages. Furthermore, Russian shows clear evidence of scope inversion in many of the hallmark contexts where English does. For example, May (1977) notes that the natural interpretation of so-called inverse linking examples like (29a), where *every city* is understood as binding *it*, requires the quantifiers to be understood with inverse scope (29b); this corresponds to a QR-derived representation where *someone from every city* raises from the main clause and *every city* subsequently raises from it, taking scope over the pronoun (29c). Strikingly, the Russian counterpart (30a) shows precisely the same interpretive properties, and hence must presumably involve the very same QR-derived LF (30b). Similarly for (31).

(29) a. [Someone from **every city**] despises **it**.
     b. for every city x, for some person y from x, y despises x.
     c. [every city$_i$] [someone [from t$_i$]]$_j$ [t$_j$ despises it$_i$]

(30) a. [Kakoj-to žitel'   [každogo iz   gorodov$_j$]] preziraet ego$_j$
        [[Some   dweller] (NOM) [every   from cities] (GEN)]despises it (ACC)
        'Someone from every city despises it'
     b. [$_{NP1}$[každogo iz gorodov]$_y$ [$_{NP2}$kakoj-to žitel' t$_i$]$_x$ [$_{TP}$ t$_i$ preziraet ego$_y$]

(31) U   Miški   est'   [igruška   [v každoj komnate doma]]
      At   Mishka (GEN) is   toy (NOM)   in every room (DAT) house (GEN)
      'Mishka has a toy in every room of the house'

Evidence from disambiguation in the context of Coordinate Structures, due to the Coordinate Structure Constraint (Ross 1967), from Antonyuk (2006), exemplified in (32) and (33) for English and Russian respectively is presented in (34) and discussed in detail in Chapter 2 of this thesis (cf. the contrast between the ambiguous (34a) and the disambiguated (34b)).

(32) a. Bill will [$_{VP}$ [$_{VP}$ cook supper] and [$_{VP}$ wash the dishes]].
     b. **What** will Bill [$_{VP}$ [$_{VP}$ cook __] and [$_{VP}$ wash the dishes]]?

(33) c. Vania [$_{VP}$[$_{VP}$ prigotovit užin] i [$_{VP}$ pomoet posudu]].
     d. **čto** Vania [$_{VP}$[$_{VP}$ prigotovit __] i [$_{VP}$ pomoet posudu]]?

(34) a. Kakoj-to student ljubit každogo professora.
        Some   student loves every   professor
        'Some student loves every professor'
        Surface scope: ✓(some > every),

Inverse scope: ✓(every > some)

b. Kakoj-to student ljubit [[Mašu] **i**   [každogo professora]].
   Some   student loves Maša **and** every   professor
   'Some student loves Maša and every professor'
   Surface scope: ✓(some > every)
   Inverse scope: * (every > some)

The Russian data such as the above, with a wide range of contexts that show scope freezing with the language more generally being scopally ambiguous, widely employing QR, provide strong support for the general conclusion reached in Bobaljik and Wurmbrand (2012) that there cannot be a QR parameter that languages differ on, with scope freezing clearly being a (derived) property of constructions, not of whole languages. At the same time the Russian data are problematic for all current accounts of scope freezing (Bruening (2001), Johnson (2001), Antonyuk-Yudina (2009, 2010/2012), Larson and Harada (2011), Bobaljik and Wurmbrand (2012)). The question then arises:

(35) What is special about the scope freezing constructions?

In Chapter 3 of the thesis I propose an account of scope freezing in terms of a **Relation ℜ**, crucially based on my empirical **Scope Freezing Generalization**, according to which scope freezing always results from an overt instance of a Topicalization-like movement of one QP over another, with the relationship established upon crossing being similar to that existing in Inversely Linked Structures (May and Bale 2005) and that observed in sentences where scope interacts with binding (Johnson 2000, Hornstein 1999 i.a.). This account allows us to capture correctly the distribution of scope freezing in the language while also explaining what is arguably the most characteristic property of genuine scope freezing: its relative nature, holding between the two QPs in question (such as the two quantificational objects in the English Double Object Construction, with the lower QP nevertheless known to be able to move, so long as it scopes below the higher object QP).

In Chapter 4 I further argue that if we accept the factual correctness of the Scope Freezing Generalization, the scope freezing distribution facts can be used to derive valuable insights into the Russian ditransitive verb phrase structure. Armed with the Scope Freezing Generalization and observing the patterns of scope fluidity and scope rigidity in Russian ditransitives, I reach the conclusion that Russian ditransitives are not a homogeneous group, as argued by all competing accounts of Russian ditransitive VP (Greenberg & Franks 1991; Franks 1995; Richardson 2007; Bailyn 1995, 2010, 2012; Dyakonova 2005, 2007) but are in fact subdivided into three distinct Groups, depending on their scope behavior. Thus, Group 1 includes ditransitive predicates where scope is free on ACC > OBLIQUE order and frozen on the opposite OBLIQUE > ACC order,

while Group 2 represents its mirror image with respect to scope ambiguity and scope rigidity patterns (e.g., scope freezing is observed on ACC > OBLIQUE order and scope ambiguity on OBLIQUE > ACC order). Group 3 shows scope ambiguity with both possible (and equally acceptable) orders of the verb's internal arguments. The three Groups are exemplified with examples of Russian ditransitives below[29]:

Group 1: ES Pattern

(36) a. Maša   prostila [kakoe-to predatel'stvo] (každoj podruge)   (amb) ∃∀/∀∃
       Masha forgave [some betrayal] (ACC)   [every girlfriend] (DAT)
       'Masha forgave some betrayal to every girlfriend'

     b. Maša prostila (kakoj-to podruge) každoe predatel'stvo   (frozen) ∃∀/*∀∃
        Masha forgave [some girlfriend] (DAT) [every betrayal] (ACC)
        'Masha forgave some girlfriend every betrayal'

Group 2: Reverse ES Pattern

(37)   a. Maša   obozvala   (kakim-to prozviščem) [každogo mal'čika]   (amb)
          Masha called   [some nickname] (INSTR)   [every boy] (ACC)
          'Masha called every boy by some nickname'

       b. Maša obozvala [kakogo-to mal'čika] (každym prozviščem)   (frozen)
          Masha called   [some boy] (ACC)   [every nickname] (INSTR)
          'Masha called some boy by every nickname'

Group 3: Free Pattern

(38)   a. Maša   napisala [kakoj-to slogan]   (na každoj stene)   (amb)
          Masha   wrote [some slogan] (ACC)   [PP on every wall] (PREP)
          'Masha wrote some slogan on every wall'
       b. Maša   napisala (na kakoj-to stene)   [každyj slogan]   (amb)
          Masha   wrote [PP on some wall] (PREP)[every slogan] (ACC)
          'Masha wrote every slogan on some wall'

The SF Generalization leads me to conclude that in each case, independent of the Group any given predicate belongs to, scope freezing is a derived phenomenon and propose the most likely structures for each Group, with a number of additional syntactic, semantic and lexico-semantic tests providing supporting evidence both for the classification itself and for the proposed structures. The proposed structures are discussed in detail in Chapter 4 of the thesis.

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[29] ES refers to English and Spanish and is meant to reflect the fact that this group is reminiscent of the scope behavior of English and Spanish Double Object Construction/ditransitives.

1.4 Cross-linguistic Implications of Russian Data

The account of scope freezing in terms of a Relation $\Re$, based on the Scope Freezing Generalization and formalized in terms of Quantifier Domain Restriction Theory (Stanley and Szabó (2000)) has far-reaching consequences for other languages that exhibit scope freezing, such as English (Larson 1990, Bruening 2001, Johnson 2001), Japanese (Hoji 1985, Harada and Larson 2011) and Icelandic (Svenonius 2000). Taken in its strongest form, it also makes predictions for languages that are currently still believed to be scope frozen, such as Chinese (Huang 1982). Specifically, the account suggests that numerous cases of genuine scope freezing may be derived by the proposed overt instance of Topicalization-like movement. Such instances of QP Topicalization (across another QP) would on my account result in a seemingly scope-frozen language, thus masking the availability of the syntactic operation QR[30]. The initial indirect support for this comes from the discussion of Chinese as a language making heavy use of Topicalization movements provided in Ramsey (1987). The discussion of Quantifier Movement (QM) as overt QR in Icelandic with familiar syntactic properties and a similar scope-freezing effect provides important initial supporting evidence for the proposal's relevance for North Germanic languages, and raises questions about related languages, such as Norwegian, where QM is argued to be available only in the form of Negative Movement, which is taken to obey Holberg's Generalization (Svenonius 2000). The Scope Freezing Generalization the account rests on, which I argue can be used as a tool for probing the structure of the ditransitive VP, if shown to correctly describe the facts from other languages exhibiting scope freezing will have far-reaching consequences in terms of mapping the possible space for analyzing the verb phrase structure for the ditransitive VP in these languages. Finally, the account, if correct, calls for a reanalysis of what it means for a Quantificational Phrase to be subject to Topicalization.

1.5 Summary

The pessimistic view of the situation described in this chapter would be that in an attempt to propose a unified theory of quantification, we seem to be facing largely the same problems that were plaguing researchers in the 1980s. While it is true that in many respects covert QR behaves similarly to overt wh-movement, it differs from it in two key ways: universal QPs differ from the wh-movement in being (mostly) clause-bound and existential QPs differ from wh-movement in disrespecting Subjacency (being largely island-free). This of course does not mean that our theory of quantification as instantiated by the QR approach has failed. As noted in Ruys and Winter (2011), "In general, whether the syntactic approach to quantifier scope is correct is not decided on the basis of

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[30] My current working assumption is that languages may differ in terms of the motivation behind the movement (e.g., Topicalization/information structural needs in Chinese vs overt movement of concordializing elements as suggested for Japanese and arguably other head-final languages that show the same general properties in Larson and Harada (2011) but that the SF Generalization, discussed in Chapters 3 and 4 nevertheless is an accurate description of the facts.

superficial (dis-)similarities of *wh*-movement and quantifier scope. What matters for a critical evaluation of QR theory is whether we can construct a successful theory of movement which provides an insightful account of both *wh*-movement and QR" (Ruys and Winter (2011): 25).

The optimistic view of QR at this point, in my opinion, is that Fox's Scope Economy principle in particular has provided key insights into the nature of QR and has given us additional reasons to believe that QR and overt A-Bar movement are indeed kindred operations: both are argued to be successive-cyclic movements, both are *motivated* movements (by semantics considerations and by feature-checking needs respectively) and furthermore, Fox's Economy appears to provide an elegant explanation for why QR of universal QPs is clause-bound[31]. Furthermore, an important new development in our understanding of quantifier scope theory is the central idea advanced in Bobaljik and Wurmbrand (2012), strongly supported by empirical evidence, including that presented in this thesis, that languages do not in fact subdivide into the scope fluid and the scope frozen ones. That all languages can now be seen as allowing QR in at least some contexts is an advancement in our understanding of this operation and the workings of quantification in human languages. If this is indeed the right conclusion, we are now left with the empirical task of finding out which constructions are scope frozen and which are scope free within any given language, and with the theoretical task of figuring out the conditions which lead to scope rigidity or scope fluidity in these constructions. The goal of the current thesis is to do just that, for one separately taken language, and to show how the obtained results inform our theory of quantification in general.

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[31] A few exceptions to QR's clause-boundedness, such as that exemplified in (3c), due to Reinhart (2006), remain as yet to be accounted for, as far as I can tell.

CHAPTER 2. QUANTIFIER SCOPE IN RUSSIAN

2.1 Introduction: Scope Rigidity vs. Scope Ambiguity

English quantifiers can, in many instances, be understood with a scope different from their surface syntactic order. For example, sentence (1) can be understood with either of the two readings in (a) and (b), where the latter is an inverse order construal.

(1)   Two students read every book.
   a. (two > every): two students x are such that x read every book (in some relevant set of books).
   b. (every > two): for every book x, x was read by two (possibly different) students.

Huang (1982) observes that this property of English does not appear to be universal for natural language. Certain languages, including Mandarin, seem to be "scope rigid" insofar as quantifier interpretation in the semantics rigidly tracks quantifier presentation in the syntax. Thus, a sentence such as (2), the Chinese equivalent of (1), is asserted to lack the inverse order construal. The order we see is the only order we get.

(2)   You   liang-ge   xuesheng   nian-le   mei   yi-ben
        shu.
        there is two-CLASSIFIER student   read (PERF)   every one-CLASSIFIER
        book
        "Two students read every book"
   a. (two > every): two students x are such that x read every book in some relevant set of books.
   b. *(every > two): for every book x, x was read by two (possibly different) students.

Huang's observation raises intriguing questions for linguistic theory and syntactic typology. For example, what parameters determine "scope fluidity" in a language like English vs. "scope rigidity" in a language like Chinese? (This question, of course, contains a presupposition: even more basic question to be answered definitively being whether there is in fact such a parameter). Modern syntactic theory assumes quantifier scope ambiguity to arise through covert movement, which is counterpart to that found overtly in question and relative clause formation. Therefore, (1) is assumed to have two syntactic representations roughly as in (3a,b), wherein either of the two quantifiers has raised to sentence-initial position.

(3)   a.   [two students]$_i$ [every book]$_j$ [t$_i$ read t$_j$]   (two > every).
       b.   [every book]$_j$ [two students]$_i$ [t$_i$ read t$_j$]   (every > two).

Assuming this view is correct, Huang's observation would seem to imply that raising movements as in (3) are somehow suppressed or constrained in scope rigid languages. This immediately raises important questions for our theory of grammar: what are the constraints? How are they implemented in grammar? Before we are able to address these important questions, however, a more basic empirical question that needs to be answered is this: which <u>are</u> the scope rigid languages in the first place? Successful induction of the properties of a class presupposes successful identification of class membership. If we mistakenly include a "scope fluid" language within the class of "scope rigid" ones, we stand a good chance of misidentifying the properties of the latter. Correct empirical identification is thus paramount. A further basic question is whether it is truly meaningful to classify whole languages as scope fluid or scope rigid in the first place, given that even those languages characterized as "scope fluid" exhibit contexts in which scope is frozen?[32] Bobaljik and Wurmbrand (2012) argue, for example, that scope rigidity is a property of constructions, not of whole languages, and that there is therefore no "QR parameter" that languages differ on.

In this chapter I examine syntactic evidence from Russian suggesting that despite previous characterizations as a scopally frozen language, Russian in fact does not belong to this class, and that it is very much like English in terms of quantifier scope, with scope fluidity observed in the same contexts where it is observed in English. I further argue that such scope fluidity/ambiguity should be explained by postulating the covert syntactic operation of Quantifier Raising, with essentially the same properties as those ascribed to QR in English. As far as quantifier scope ambiguity is concerned, the two languages are therefore taken to be essentially identical, despite other well-known syntactic differences between them (e.g., such as availability of Scrambling in Russian and its absence in English), thus arguing against the parameterization of QR on the basis of (un)availability of word order permutations.

2.2 Russian as a Surface-Scope Frozen Language

Russian quantifier scope has been discussed in detail in only a handful of published studies, with the status of quantification in the language being an unresolved issue. The earliest (and arguably most influential) study is Ionin (2001), which reviews a range of quantificational sentences from Russian and concludes that while local QR, (motivated

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[32] The above refers primarily to contexts of genuine scope rigidity (the Doble Object construction and the *with*-variant of the Spray-Load construction) noted by Lebeaux and discussed for English in Larson (1990).

by type mismatch in the spirit of Heim and Kratzer 1998) is available, Russian is a mostly scope-rigid language, with relations between two QPs restricted to those determined by surface c-command. Representative examples offered by Ionin are (4)-(6), where in each case the surface order construal is said to be the only one available[33],[34]:

(4)   [Odin mal'čik]   poceloval   [každuju devočku].
         One boy (NOM)   kissed   every girl (ACC)
         'One/a certain boy kissed every girl'
      a. (one>every): One (specific) boy kissed every girl.
      b. *(every>one): For every girl x, x was kissed by some boy.

(5)   [Kakaja-to/ *kakaja-nibud' koška]   ukusila   [každuju sobaku].
         Some cat (NOM)   bit   every dog (ACC)
         'Some cat bit every dog.'
      a. (some>every):A single (specific) cat bit every dog
      b. *(every>some):For every dog, some cat bit that dog

(6)   [Každaja   koška]   ukusila   [kakuju-to/ kakuju-nibud' sobaku].
         Every   cat (NOM)   bit   some dog (ACC)
         'Every cat bit some dog.'
      a. (every>some):For every cat x, x bit some dog.
      b.??(some>every):For one (specific) dog, every cat bit that dog.

Ionin atrributes this surface scope restriction to the general freedom in surface word order in Russian, made available by overt movement operations like Topicalization, which are argued to disallow scope reconstruction[35]. In brief, Ionin's idea is that since scope

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[33] In addition to quantifier scope in SVO sentences, Ionin (2001) also uses examples with OVS word order in which she claims frozen surface scope also obtains. In this chapter I am primarily concerned with SVO word order, which is generally acknowledged to be the basic, underived word order (Bailyn (1995), (2012), i.a.).

[34] My own native Russian speaker judgments diverge from Ionin's on the above sentences. While I find some preference for surface scope, which may be stronger for some speakers, inverse scope interpretation is nevertheless also available for all of these examples. I have collected judgments of over 50 native speakers of Russian, with all but one conceding that such doubly quantified sentences in Russian (e.g., those involving an existentially quantified subject and a universally quantified object) are indeed ambiguous between surface and inverse scope interpretations. The one informant whose judgments differed in this respect, insisted that sentences like those discussed throughout this chapter are "unnatural" on the inverse scope interpretation, as in Russian there is always a better way to express such meaning, namely by resorting to overt displacement of the wide-scope QP. This speaker's intuition therefore seems to be aligned with the view presented in Ionin (2001).

[35] Antonyuk-Yudina (2009) argues that Ionin is correct in that there is no reconstruction for scope.

relations *can* be disambiguated by overt movement before LF, they *must* be disambiguated before covert movement applies, under a version of Pesetsky's (1989) Earliness Principle[36],[37]. Ionin (2001) summarizes the basic situation with Russian quantifier scope in the following principle: [38]

(7)   **Ionin's scope principle:**
       The availability of overt movement restricts covert movement*.*

Ionin relates this principle to observations on the interaction between German word order and scope by Beck (1996), who states: "German is a language that has scrambling and, accordingly, a relatively free word order. It seems that because scope order *can* be made clear at S-Structure, it has to be, so S-Structural c-command mostly reflects semantic scope. Movement at LF thus has to be severely restricted." Thus for Ionin, the relation between word order freedom and quantifier scope possibilities "capture[s] the difference between scrambling languages such as Russian and German, on the one hand, and rigid word-order languages such as English on the other. Overt movement in Russian is therefore preferred: English is forced to use covert QR because of the relative unavailability of overt movement" (Ionin (2001): 7)[39].

2.3 Expanding the data

The general idea proposed above is attractive in attempting to tie unavailability of inverse scope in a language to independent properties that set it apart from uncontroversial scopally fluid languages, such as English. This idea features prominently in Bobaljik and

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[36] Ionin's account follows the same line of reasoning as Bobaljik and Wurmbrand (2012) and their earlier work, which also propose "to derive crosslinguistic and language-internal differences in the distribution of covert scope-shifting operations (QR) from the independently attested differences in the freedom of word order variation (scrambling)".

[37] This account also seems to be strongly influenced by the influential idea, originally proposed in Pesetsky (1987), that there are "languages that wear their LFs of their sleeves" (Pesetsky (1987): 117). Pesetsky advanced this idea in a discussion of Polish multiple wh-movement, but it was quickly extended to other languages and is now most often used to describe Hungarian, which is known to be a language that disambiguates its LF relations through overt movement (and can thus indeed be said to wear its LF on its sleeve). See Kiss (1991) for a detailed discussion of Hungarian data.

[38] Inverse scope between a quantifier phrase and an intensional verb or an adverb of quantification is taken to be possible by Ionin, but she analyzes wide scope in such cases to be derived via choice functions and not QR. True QR is always disallowed on her account except for short interpretation-driven QR to vP level in the spirit of Heim and Kratzer (1998). It is not clear, however, how a choice function analysis would extend to include strong quantifiers.

[39] Note that this characterization essentially makes QR a last-resort kind of an operation, applying in a language only in case overt movement of a QP is restricted. Whether this is indeed the case seems to me to be still somewhat an open question at the moment, although evidence from Engish and Russian (to be presented further) combined seem to argue against such a conclusion.

Wurmbrand (2012), a cross-linguistic study of quantifier scope ambiguity and scope freezing that attempts to explain a broad range of syntactic phenomena in languages such as English, Japanese, German and Dutch. Although Bobaljik and Wurmbrand do not discuss Russian, their account, which also ties overt word order permutability in a language (i.e., Scrambling) to frozen scope, indeed predicts that a Scrambling language like Russian should exhibit frozen surface scope in contexts where Scrambling is allowed. Thus, basic SVO sentences, which are the main focus of this article, are expected to show surface scope interpretations only, given that such sentences have grammatical scrambled counterparts. Before accepting broad conclusions about language typology like (7), however, it is important to make sure that the data prompting those conclusions are secure. In fact, as I will show in the following sections, while Ionin (2001) is correct about the availability of covert local QR in Russian and the lack of reconstruction for scope, its broader assessment of Russian as a scope rigid language is based on incomplete data. Consideration of a wider range of examples across a range of diagnostic constructions shows that, with respect to scope, Russian actually behaves quite comparably to English, an uncontroversial scope-fluid language. These observations place Russian in the "scope fluid language" group as well as provide evidence against proposals attempting a straightforward relation between availability of Scrambling in a language and rigid surface scope.

2.3.1 Is Russian Really Scope Rigid?

As noted above, Ionin (2001) states that examples like (4)-(6) exhibit only a surface scope interpretation. This claim is too strong, however, in the judgment of this author and many other Russian informants[40]. While example (4) does show a strong preference for the surface scope reading for some speakers, this may arguably be simply due to the quantificational determiner *odin*, which shows a lexical preference for wide scope, somewhat comparable to English *a certain*[41,42]. Compare English (8) below to Ionin's

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[40] Subsequent experimental work by Ionin, most notably Ionin and Luchkina (2015) concedes that Russian does in fact allow QR of the English variety, although still stressing strong Information Struture-related surface scope preference (which is nevertheless admitted to be a preference, rather than a grammatical requirement). This new experimental study then is largely aligned with syntacic evidence presented in this chapter.

[41] Note that the preference for surface scope in examples like (4) is just that: myself and other native speakers I consulted still perceive the ambiguity of Ionin's examples. As a general note on judgments reported throughout this chapter: the scope judgments presented reflect first of all my own inuitions as a native speaker; however, they have also been confirmed with numerous other native speaker informants, including feedback from anonymous native Russian speaker reviewers of a related chapter who have commented on parts of the material presented here. In the more complex cases native speaker intuitions were supplemented with intuitions on truth/falsity of senteces and inferences as they relate to the sentences in question.

[42] This intuition is also consistent with Ionin and Luchkina (2015) which argues that QPs interpreted as the Topic prefer surface scope interpretations.

(4); here also *a certain N* (as opposed to *some N*) strongly prefers widest scope.

(8)   A certain boy kissed every girl.
 a. (a > every): there is a boy x, such that x kissed every girl in some relevant set
 b. */??(every>one): For every girl x, x was kissed by some boy.

With respect to (5) and (6) matters are also less categorical than represented in Ionin (2001). In fact Russian speakers show variation in these examples, ranging from weak to strong preference for the surface order construal, largely parallel to what is found with (9) and (10) for English speakers[43]:

(9)   Some cat bit every dog.
 a. (some>every):A single (specific) cat bit every dog   Preferred
 b. (every>some):For every dog, some cat bit that dog

(10) Every cat bit some dog.
 a. (every>some):For every cat x, x bit some dog.   Preferred
 b. (some>every):For one (specific) dog, every cat bit that dog.

This result is in fact quite general. Examples (11)-(14), involving various quantificational determiners in Russian, are representative. In all these cases there is ambiguity, with some speakers showing weak to strong preference for surface scope. (Scenarios are provided as an aid to readers who are Russian speakers in accessing the relevant readings.)

(11)   Dva studenta   pročitali každuju knigu.
   Two students(NOM) read(PST.PL) every   book(ACC)
   'Two students read every book'
 a. **(two > every)**: two students are such that they read every book in the
   relevant set of books;
   Scenario (surface scope): the teacher assigned a list of books to be read
   by the class over the summer. Everyone read a few books from the list,
   but two students, Michael and Joey, read every single book on the list.
 b. **(every > two):** for every book x, x was read by two (possibly different)

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[43] Antonyuk-Yudina (2011) discusses a range of SVO examples like these and proposes that a likely reason Russian speakers show some preference for surface scope is due to *silent prosody* (Fodor 2002 a,b) native speakers impose on such sentences that in many cases is incompatible with the inverse scope interpretation. The native speakers who were asked to comment on the sentences discussed in this chapter were thus asked to pronounce these with neutral intonation (e.g., without stressing any part of the sentence and without making prosodic breaks anywhere in the sentence).

students.

Scenario (inverse scope): the teacher assigned a list of books to be read over the summer. The list was quite long and so the students were not expected to read all the books from the list, the requirement was only that each of the books be read by more than one person, and so each book was read by two different students.

(12)   Bol'še poloviny   studentov   otvetili   na každyj vopros.
         More than half   students   answered   on every question
         'More than half of the students answered every question'

    a. **(more than half > every):** more than half of the students are such that they answered every question on the exam;
    Scenario (surface scope): in a class of 6 students, 4 students, Mattias, Margit, Sam and Nina, answered each one of the 10 questions on the final exam while the other two students answered just half of the questions each.

    b. **(every > more than half):** for each of the questions x, x was answered by more than half of the students;
    Scenario (inverse scope): the semantics exam was particularly challenging this semester and so none of the students answered all of the questions, but each of the questions was answered by more than half the class. Thus, Mattias, Margit, Sam and Nina answered question 1; Mattias, Nina, Tovey and Robin answered question 2; Sam, Margit, Robin and Nina answered question 3, etc.

(13)   Neskol'ko   xirurgov   operirovali   každogo   pacienta.
         Several   surgeons   operated   every   patient
         'Several surgeons operated on every patient'

    a. **(several > every):** several surgeons are such that they operated on every patient;
    Scenario (surface scope): the surgeons assigned to the same night shift decided to help each other out and so they performed each scheduled operation together.

    b. **(every > several):** for every patient, she was operated on by several (possibly different) surgeons.
    Scenario (inverse scope): each of the operations scheduled for the shift turned out to be a tricky one and so several surgeons had to operate on each patient: Yan, Craig and Pio operated on patient 1, Dejan, Jing and Zhenya operated on patient 2, Matt and Kara operated on patient 3 and so on.

(14)   Kakoj-to   student   ljubit   každogo   professora.
         Some   student   loves   every   professor
         'Some student loves every professor'

    a. **(some > every):** some student is such that he loves every one of the
       professors in some relevant set.
       Scenario (surface scope): there is one student in the group such that he happens
       to love every one of his professors.

    b. **(every > some):** every professor x is such that some student or other
       loves x.
       Scenario (inverse scope): for each of the professors in our department, he or
       she happens to be loved by some student or other, no professor is universally
       disliked. Thus, Matt is loved by Mattias, Zhenya is loved by Nina, Morgan is
       loved by Sam, Craig is loved by Carmen and Dejan is loved by Robin.

In all of these doubly quantified Russian sentences, where quantifiers lexically favoring wide scope readings are avoided, Russian speakers do detect scopal ambiguities comparable to those found in English. If quantifier scope ambiguity comparable to English is available in Russian, we expect the grammatical mechanism underlying ambiguity in English – Quantifier Raising (QR) – to be available in Russian as well. Ionin (2001) argues that local QR is in fact available in Russian. In the next sections, I show that the core constructions cited as evidence for QR in English are in fact also found in Russian. If these are accepted as convincing evidence for non-local QR in English and other languages, then the latter must be posited for Russian as well.

2.3.2 Inverse Linking

Inverse Linking Constructions (ILCs) like (15a) involve an embedded quantifier (*every city*) that takes scope over its containing quantifier phrase (*someone from*) and simultaneously binds a pronoun in the predicate phrase, despite not c-commanding the latter in overt syntax. The resulting interpretation is as in (15b).

(15) a. [Someone from **every city**] despises **it**.   (May 1985)
     b. for every city x, for some person y from x, y despises x.

The syntactic analysis of such cases proposed in May (1977), (1985) crucially involves Quantifier Raising. The larger, containing quantifier raises out of the main sentence (16a), followed by extraction of the embedded quantifier from within it (16b). This derivation results in inverse scope for the embedded quantifier, at the same time placing it in a high position from which it can bind the pronoun (*it$_i$*) in the predicate.

(16) a.   [someone from [every city$_i$]]$_j$ [t$_j$ despises it$_i$]

d.   [every city$_i$] [someone [from t$_i$]]$_j$ [t$_j$ despises it$_i$]

Inverse Linking provides compelling evidence for the existence of covert QR, insofar as it simultaneously accounts for the otherwise puzzling combination of scope and binding properties found in ILC examples. Assuming then that covert QR *is* the mechanism needed to derive the bound pronoun reading and the most salient scope interpretation in ILCs, the existence of ILC in a language can be taken as direct evidence for the presence of covert QR.

Crucially, Russian exhibits Inverse Linking Constructions. (17a) is the counterpart of the English (15a). It has a bound pronoun reading under which it is understood as asserting that for each of the cities x, someone among x's dwellers despises x. The LF representation of this sentence on its bound variable reading is (17b), based on the structure proposed in May and Bale (2006). Example (17c), perhaps the most famous motto of the Soviet era, is arguably a well-formed naturally occurring example of Inverse Linking. (17d), modeled on a well-known example from Rodman (1976), is both natural sounding and most naturally interpreted with 'every room' taking inverse scope over 'a toy'[44].

(17) a. [Kakoj-to žitel'   [každogo iz   gorodov$_j$]]   preziraet ego$_j$.[45]

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[44] That it is the inverse scope, or the high scope for the embedded QP, that is responsible for the most salient readings of the examples in (17) can easily be demonstrated by relativizing these examples, as in (i).

(i) U Miški   est'   [igruška [kotoraja naxoditsia   [v   každoj komnate doma]]]
   At Mishka$_{(GEN)}$ is   toy$_{(ACC)}$ which is   in   every   room$_{(DAT)}$ house$_{(GEN)}$
   'Mishka has a toy which is in every room of the house'

The example in (i) only has the bizarre interpretation which asserts the presence of one particular toy in every room. The lack of the other interpretation, which is favored by our knowledge of how things are in the world, is predicted, since QR is clause-bounded and is thus confined to the relative clause (though see Fox (2000) for some apparent counterexamples to the clause-bound nature of QR).

[45] I purposefully use a partitive QP *každogo iz gorodov* as the embedded quantifier phrase in this example rather than the non-partitive *každogo goroda* as for some speakers it is much more difficult to get the inversely linked interpretation for this sentence with the latter QP. In my opinion this state of affairs is due to the fact that native Russian speakers have two options here: using a partitive or a non-partitive phrase. Given that the partitive forces proportionality, it is the natural disambiguating choice in sentences of this sort. That it is indeed a pragmatic preference, rather than an inability of the lower non-partitive QP to undergo QR, is clearly demonstrated by examples such as (17c) and (17d) where non-partitive QPs are used as embedded quantifier phrases yet the inversely linked interpretation is the highly salient, indeed, the preferred one.

Some   dweller(NOM) every   from cities (GEN)   despises it(ACC)

'Someone from every city despises it'

LF b. [$_{NP1}$[každogo iz gorodov]$_y$ [$_{NP2}$kakoj-to žitel' **y**]$_x$ [$_{TP}$ **x** preziraet ego$_y$]

c. [Proletarii   [vsex stran]], objediniajtes'![46]

Proletarians   all countries$_{(GEN)}$ unite

'Workers of the world, unite!'

d. U   Miški est' [igruška   [v   každoj   komnate doma]]

At   Mishka$_{(GEN)}$ is toy$_{(ACC)}$ in every room$_{(DAT)}$ house$_{(GEN)}$

'Mishka has a toy in every room of the house'

The correspondence between Inverse Linking Constructions in English and Russian is a thoroughgoing one[47]. In a discussion of Inverse Linking, May and Bale (2006) observe pairs like (18a,b), where Inverse Linking combines with verbal ellipsis in the second member. They note that whereas (18a) is scopally ambiguous, with either quantifier taking widest scope, (18b) is unambiguous. VP ellipsis in the second sentence (*Bill did too*) apparently "freezes scope" in the sentence providing the VP antecedent (*Two volunteers greeted the producer of every movie*). The only available scope reading in the latter tracks the surface order of QPs:

(18) a. **Two volunteers** greeted the producer of **every movie**.

(two > every), (every > two)

b. **Two volunteers** greeted the producer of **every movie**. Bill did [$_{VP}$ e] too.

(two > every), ***(every > two)**

Interestingly, Russian shows the identical effect in comparable pairs. Thus whereas (19a) allows scope ambiguity so that either the same or different pairs of volunteers greeted every producer, (19b) allows only the former reading. VP ellipsis freezes scope to the surface order in the sentence providing the antecedent.[48]

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[46] Lucas Champollion (p.c.) notes that (17c) might not in fact instantiate ILC derived by QR and that the relevant reading might instead involve a cumulative reading derived by in-situ means. I will continue to assume the analysis in the text and leave this an open question.

[47] Along with the QP-Preposition ordering in (17a), another ordering is also possible. Such ordering, however, appears to strongly favor the wide scope for the outer quantifier. The same is true for Ukrainian (see ex.71):

(i) [Kakoj-to žitel'   [iz   každogo goroda$_j$]]   preziraet ego$_j$.

Some   dweller$_{(NOM)}$ from   every   city$_{(GEN)}$ despises   it$_{(ACC)}$

'Someone from every city despises it'

[48] Fox (2000) proposes that the contrast in examples like (18a,b) follows from a Scope Economy Principle of very wide application. Antonyuk-Yudina (2009) extends Fox's analysis to Russian.

(19) a. Dva volontera   privetstvovali   prodjussera každogo iz fil'mov.
   Two volunteer (NOM.PL) greeted(PST.PL) producer   [every from movie](ACC)
   'Two volunteers greeted the producer of every movie'
   (two > every), (every > two)
  b. Dva volontera   privetstvovali prodjussera každogo iz fil'mov i Vanja tože.
   'Two volunteers greeted   the producer   of every movie and so did Vanja'
   (two > every), ***(every > two)**

Consider also the triplet of English sentences in (20):

(20) a. At most two senators on every committee voted for the bill.
  b. At most two senators on every committee$_i$ voted to abolish it$_i$.
  c. At least one senator$_i$ on every committee that he$_i$ thought was worthy of
   his$_i$ attention, voted for the bill.

While the sentence in (20a) is true in a situation where a maximum of two senators who happen to be on every one of the committees voted for the bill, example (20b) does not have this interpretation; the latter is true only in a situation where for every one of the committees x, a maximum of two senators on each of those committees voted to abolish x. Finally, example (20c) shows the surface scope interpretation on which there is at least one senator x such that x is on every committee he deemed worthy of his attention and x voted for the bill. The wide scope for *at least one senator* is required if the latter is to be able to bind pronouns in the second quantifier (*every committee that he…his…*).

  The contrast in the availability of the scope readings in this triplet is due to pronoun binding relations. Example (20a) simply contains no pronoun binding and is thus fully compatible with either surface or inverse scope for the quantifiers. In (20b) the pronoun is interpreted as bound by the embedded quantifier (*every committee*), a relation that is only possible if the latter extracts from the embedding quantifier, obtaining scope over it and c-commanding the pronoun. Finally in (20c), *at least one senator* is required to take scope over the second quantifier if it is to be able to bind pronouns within it (*every committee that **he**…**his**…*).

  The counterpart Russian paradigm in (21) below displays the identical relations of scope and binding found in the English examples in (20)[49].

The crucial point to note here, however, is that quantifier scope distribution, and the mechanism that derives it, appear to be exactly the same in the two languages.

[49] Some speakers apparently interpret QPs like *maksimum QP*, *kak minimum QP* as narrow-scope indefinites; for them (21a) has only an inverse scope reading and (21c) is ungrammatical (since it requires wide scope for the low-scope indefinite due to binding relations). To see that wide scope for such QPs is in fact available, consider (i), the counterpart of (21c) in which the *minimum QP* has been relativized. The sentence is both grammatical and coherent, demonstrating that the QP in question has no problem taking wide scope and binding the pronouns inside the relative clause.

(21) a. Maksimum dva senatora v každom iz komitetov
At most two senators (NOM.PL) in every from committees
progolosovali za zakonoproekt.
voted for bill
'At most two senators on every committee voted for the bill'
(at most two > every), (every > at most two)

b. Maksimum dva senatora v každom iz komitetov$_i$
At most two senators (NOM.PL) in every from committees
progolosovali za to, chtob raspustit' ego$_i$.
voted for that that abolish it
'At most two senators on every committee voted to abolish it'
*(at most two > every), (every > at most two)

c. Kak minimum odin senator$_i$ v každom iz komitetov, kotorye on$_i$ sčitaet
How minimum one senator in every from committees, which he
sčitaet dostojnymi svoego vnimanija, progolosoval za zakonoproekt.
considers worthy [self attention](GEN) voted for bill
'At least one senator on every committee that he thought was worthy
of his attention, voted for the bill'
(at least > every), *(every > at least)

Thus, we see that Russian not only allows Inverse Linking Constructions, which (May 1977) and subsequent work have taken to provide decisive evidence for the operation of Quantifier Raising, Russian ILCs also exhibit the same constellations of scope and binding relations that we find in the counterpart English cases.

2.3.3 Weak Crossover

Chomsky (1976) observes that overt movement gives rise to ungrammaticality when it creates a variable (t_i) serving as an antecedent to a non-c-commanding pronoun to its left (*his$_i$*), as in (22a). Put differently, crossing a wh-word over a coindexed non-c-commanding pronoun produces ill-formedness. No such violation occurs when there is no crossing (22b):

The difficulty associated with this sentence may lie in the processing costs of having two relative clauses embedded in one another.

(i) Kak minimum odin senator$_i$ [kotoryi sidit v každom iz komitetov, kotorye on$_i$ sčitaet
How minimum one senator which sits on every from committies, which he considers
dostojnymi svoego vnimanija], progolosoval za zakonoproekt.
worthy [self attention] (GEN) voted for bill
'At least one senator on every committee that he thought was worthy
of his attention, voted for the bill' (at least > every), *(every > at least)

(22) a. *Who$_i$ does [his$_i$ mother love t$_i$]?
                        X
     b.   Who$_i$ [t$_i$ loves his$_i$ mother]?

Given this background, the impossibility of a bound variable reading for (23a) can be taken as evidence for the covert movement of quantifier phrases. A bound pronoun construal of *his$_i$* would require *every student* to raise covertly across it, yielding the very same "Weak Crossover" (WCO) configuration found with the wh-movement case (cf. (22a) and (23b)). Hence (23a) can be ruled out in parallel to (22a) if quantifiers undergo covert raising:

(23) a. *His$_i$ mother loves [every student]$_i$.
     b.   [every student]$_i$ [his$_i$ mother loves t$_i$].

Bailyn (2004) observes that Russian also exhibits WCO effects with quantifiers in examples like (24), a diagnosis that, if correct, would provide further evidence for QR in the language. Interestingly, however, the path to this conclusion is somewhat more complicated than in the English case.

(24) *[**Ee$_i$**   uborščica]   vošla   [v **každuju$_i$ komnatu**].
      [Her   cleaning.lady](NOM.FEM)   entered   [in every room](ACC.FEM)
      'Its$_i$ cleaning lady entered every$_i$ room'

Russian differs from English in exhibiting a prohibition on "Backwards Prononimalization". Whereas English (25a), in which the pronoun precedes its antecedent, is acceptable for many English speakers, the counterpart Russian example (25b) is not.

(25) a. **His$_i$** parents annoy **John$_i$**.
     b. ***Ego$_i$** roditeli razdražajut   **Ivana$_i$**.
          His   parents   annoy (PRES.PL)   Ivan (ACC)
          'His parents annoy Ivan'
     c. ***Ego$_i$** roditeli razdražajut   [**každogo podrostka**]$_i$.
          His   parents   annoy (PRES.PL)   every   teenager (ACC)
          *'His$_i$ parents annoy [every teenager]$_i$'

The constraint on Backwards Pronominalization complicates the diagnosis of ill-formedness in (25c) and (24) given their strong surface resemblance to (25b). It might be argued that (24) and (25c) are not really WCO violations at all, but rather violations of

the same prohibition against Backward Prononimalization operative in (25b). This would remove (24) and (25c) as evidence for QR in Russian.

Antonyuk-Yudina and Bailyn (2008) address this point, arguing that the violations in (24)/(25c) vs. (25b) are in fact the product of independent constraints. They note that examples like (26), violating Backwards Pronominalization, improve dramatically as soon as the pronoun-containing expression is embedded within an additional layer of structure.

(26) [Mašina   [**ego$_i$**   roditelej]]   razdražaet   **Ivana$_i$**.
     Car (NOM)   his   parents (GEN) annoy   Ivan (ACC)
     'His$_i$ parents' car annoys Ivan$_i$'

Thus Russian speakers report that (26), with backwards co-reference between *ego* and *Ivana*, is considerably more acceptable than (25b). Crucially, the same improvement is <u>not</u> observed in the counterparts of (25c), where the pronoun antecedent is a quantifier phrase. Examples (27a,b) are just as unacceptable as (25c):

(27) a. *[Mašina   [**ego$_i$** roditelej]]   razdražaet   [**každogo podrostka**]$_i$.
         Car (NOM) his   parents (GEN) annoy   every   teenager (ACC)
         'His$_i$ parents's car annoys [every teenager]$_i$'
     b. *[Mašina   [druzej   [**ego$_i$** roditelej]]] razdražaet [**každogo podrostka**]$_i$.
         Car   friends   his parents   annoy   every   teenager
         'The car of his$_i$ parents' friends annoys [every teenager]$_i$'

This divergence is taken to imply an additional source of ungrammaticality in (25c) versus (25b). The natural conclusion is that, whereas (25b) violates Backwards Pronominalization, (24), (25c) and (27a,b) all violate the ban on Weak Crossover[50]. This

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[50] As pointed out by Bailyn (p.c.), there is an additional complicating factor with WCO in Russian, viz.,that the availability of Scrambling might provide the possibility of raising a QP or a wh-phrase to some A position before it undergoes A-bar movement to its final landing site, thus avoiding the violation. That something along these lines may be happening is evidenced by the pair in (i) and (ii):

(i) *[Kakogo   **generala**]$_i$ **ego$_i$**   soldaty ubili?
     Which   general   his   soldiers killed
     '[Which general]$_i$ was killed by his$_i$ soldiers?'
(ii) ?[Kakoj   **general**]$_i$ byl   ubit   **ego$_i$**   soldatami t?
     Which   general   was   killed his   soldiers
     'Which general was killed by his soldiers?'

Evidently in cases of WCO involving quantifiers like (i) violation-saving A-movement as in (ii) does not seem to be available. It is possible that such A-movement is prohibited by Economy

in turn further argues for the existence of covert QR in Russian[51].

2.3.4 Antecedent Contained Deletion

The phenomenon of Antecedent Contained Deletion (ACD) is widely accepted as providing evidence for a level of Logical Form and for a covert operation of Quantifier Raising applying at that level. On the assumption that elliptical VPs like that in the second conjunct of (28a) reconstruct their content from non-elliptical VPs, as in (28b), cases of VP ellipsis like (29a) pose a problem of regress (See Bouton 1970, Sag 1976, May 1985 i.a.). The position of the elliptical VP ([$_{VP}$ e]) inside the VP that is to serve as its reconstruction source entails that reconstruction will always introduce another copy of the elliptical element (29b), which will itself require reconstruction, etc.:

(28) a. John could [$_{VP}$ **visit Mary's family**] and Sonja could [$_{VP}$ **e**] too.
      b. John could [$_{VP}$ visit Mary's family] and Sonja could [$_{VP}$ **visit Mary's family**] too.
                    RECONSTRUCT VP

(29) a. John could [$_{VP}$ **visit everyone Sonja could [$_{VP}$ e]**]
      b. John could [$_{VP}$ visit everyone Sonja could [$_{VP}$ **visit everyone Sonja could [$_{VP}$ e]**]]
                    RECONSTRUCT VP

The solution to this problem urged by Sag (1976), Williams (1977) and May (1985) is to extract the quantifier phrase out of VP at LF (30a). This creates a reconstruction source for the elided VP that involves no regress and that yields the correct interpretation for the example (30b):

(30) a. [everyone that Sonja could [$_{VP}$ e]]$_i$ [John could [$_{VP}$ visit t$_i$]]
                    QR QUANTIFIER

      b. [everyone that Sonja could [$_{VP}$ **visit t$_i$**]]$_I$ [John could [$_{VP}$ visit t$_i$]]
                    RECONSTRUCT VP

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considerations: there simply is no motivation for this movement in (i), hence, by Economy, it is ruled out.

[51] Note that the sentences that I take to be ungrammatical due to WCO violations would also be ungrammatical (on the bound variable reading) on Ionin's original account since, the relevant QPs do not undergo QR past the vP level. Thus the object QP in (27a,b), for instance, never raises high enough to obtain scope wide enough for the intended bound variable interpretation. WCO thus cannot be viewed as providing decisive evidence against an account such as Ionin (2001). Rather, once it is established that non-local QR is needed in Russian, availability of WCO violations serves as further evidence of parallelism between English and Russian with respect to quantifier scope. I am indebted to Lucas Champollion (p.c.) for clarifying discussion on this point.

Assuming this account of ACD is correct, the presence of ACD constructions in a language becomes a diagnostic for QR in the language. Kazenin (2001) argues explicitly that the Russian examples in (31a-c) are examples of ACD involving VP-ellipsis:

(31) a. Petja budet razgovarivat' so vsemi, s kem (budet) i Kolja (Kazenin 2001)
          Peter will talk   with everyone, with whom (will)   also Kolia
          'Peter will talk with everyone Kolja will'

      b. Petja budet razgovarivat' obo   vsem, o   čem   (budet) i Kolja
          Peter will talk about everything, about   what   will   also   Kolia
          'Peter will talk about everything Kolja will'
      c. Petja ne budet razgovarivat' so   vsemi,   s   kem   (ne budet) i   Kolja
          Peter not will talk   with   everyone with whom not will   also Kolia
          'Peter won't talk with everyone Kolja won't'

On Kazenin's view, (31a) for example, involves raising of the universally quantified phrase [*vsemi s kem (budet) i Kolja*] 'everyone with whom (will) also Kolia', containing an empty VP (32a). The latter then reconstructs at Logical Form from the antecedent VP *razgovarivat' so* 'talk with' (32b):

(32) a. [vsemi, s kem (budet) i Kolja [VP e]] Petja budet [VP razgovarivat' so t]
                                QR QUANTIFIER

      b. [vsemi, s kem (budet) i Kolja [VP **razgovarivat' so t**]]

          Petja budet [VP razgovarivat' so t]   **RECONSTRUCT VP**

As in analyses of the English counterparts, Kazenin crucially assumes QR as the mechanism by which antecedent containment is resolved.

Additional candidates for Russian Antecedent Contained VP Ellipsis include (33a-c), which diverge from (31a-c) in some ways:

(33) a. Vanja [VP budet smotret' [vse **te**   **že**   fil'my, čto i   ego brat   [VP **e**]].
          Vania   will   watch   all those ZHE movies what also his   brother
          'Vania will watch all the movies his brother will'
      b. Ja   videl (vsex) **tex**   **že**   mal'čikov, čto   i   Sonja
          I   saw (all)   those ZHE boys   what also Sonja
          'I saw all the boys Sonja did'
      c. Petia xotel   kupit' vse (**to** **že**),   čto   i   ja
          Peter wanted   to buy all (those ZHE)   what also   I
          'Peter wanted to buy everything I did'

Whereas (31a-c) are indefinite pronoun constructions, headed by the equivalent of English *everyone, everything*, etc., (33a,b) exhibit full nominal heads. Furthermore, (33a-c) also show a *te že/to že* element intervening between the quantifier and the head noun, whose presence seems conditioned by the presence of the latter (cf. (33a,b) where a head noun is present versus (33c) where one is absent). Finally, *te že/to že* seems to license elision of the quantifier in some cases (33b).[52]

These differences notwithstanding, (33a-c), like (31a-c) surely seem to involve an antecedent containment relation to be resolved by QR. Thus in (33a), the object of *smotret'* 'watch' is a universally quantified nominal *vse te že fil'my čto i ego brat* 'all those movies that also his brother' that appears to contain a missing predicate, understood as '(will) watch'. Thus (33a) will arguably require recourse to the same movement mechanism to derive the interpretation of the elided VP, where the quantifier extracts (34a) and the VP subsequently reconstructs (34b):

(34) a. [vse te že fil'my čto i ego brat [$_{VP}$ e]]$_i$ [Vanja budet smotret' t$_i$]

QR QUANTIFIER

    b. [vse te že fil'my čto i ego brat [$_{VP}$ **budet smotret' t$_i$**]]$_i$

        [Vania [$_{VP}$ budet smotret' t$_i$]]   **RECONSTRUCT VP**

Consider also the bracketed quantifiers in (35a,b) which Larson (2000) suggests involve an elliptical clause whose content is reconstructed from the containing main clause. Larson argues that these exhibit Antecedent Contained CP Deletion and that reconstruction of the elliptical CP involves the same mechanisms involved in the VP cases in (29); i.e., QP raises (36a) and CP reconstructs (36b)

(35) a. Max did [everything you said Ø].
        (cf. *Max did everything you said **that he did*** and
            *Max did everything you said **to do**.*)
    b. I did [everything you asked Ø].
        (cf. *I did everything you* asked ***that I do***)

(36) a.   [everything you said [$_{CP}$ e]]   [$_{CP}$ Max did t]

QR QUANTIFIER

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[52] The *te že/to že* and *i* 'also' elements in (31) and (32) both seem to help establish identity: *te že/to že* underscores the identity between the sets of objects picked out by the antecedent VP and the elided VP (e.g., movies Vanya will watch and movies Vanya's brother will watch, in 33a). The *i* element seems to stress the identity of the action denoted by the antecedent and the elided verbs.

b.   [everything you said **[CP Max did t]]**   [CP Max did t]

<div align="center">**RECONSTRUCT CP**</div>

Interestingly Russian exhibits the same kinds of constructions involving elliptical CPs (37a-f), with a similar range of interpretations:

(37) a. Maks   sdelal vse, čto   ty   skazal (CP čto on sdelal)/(TP sdelat')
         Max   did   all, that   you   said   (that he did)/(to do)
         'Max did everything you said **that he did**' and
         'Max did everything you said **to do**'

b. Ja   sdelala vse, o čem   ty   poprosil (CP čtoby ja sdelala)/ ??/*(TP sdelat')
    I   did   all, about what you   asked   (that by(SUBJ) I did) /(to do)
    'I did everything you asked **that I do**'

c. Maša pogovorila so vsemi, s   kem   ty dumaješ', (CP čto ona pogovorila)
    Masha talked   with everyone, with whom you think (that (INDIC) she talked)
    'Masha talked with everyone you think **that she talked**'

d. Maks pozvonil vsem,   komu ty   xotela, (CP čtoby   on pozvonil)
    Max called   everyone   whom you   wanted(that bySUBJ   he called)
    'Max called everyone you wanted **him to call**'

e. Alisa pozvonila vsem,   komu ty možeš predstavit', (CP čto ona pozvonit)
    Alice called   everyone, whom you can imagine   (that she will call)
    'Alice called everyone you can imagine **that she called**'

f. Maks pomog vsem,   komu ty   xotela, (CP čtoby on pomog)/(TP PRO pomoč'[53])
    Max helped everyone whom you wanted (that bySUBJ he helped/whom you
    wanted to help)
    'Max helped everyone you wanted **him to help**/whom **you wanted to help**'

If (37a-f) represent Antecedent Contained CP Deletion examples, as Larson argues for their English counterparts, then QR must be assumed to be operative in these cases as well, with derivations involving QR equivalent to (36a,b)[54].

The parallels between English ACD cases and what we are analyzing here as Russian ACD cases, extends beyond the class of elliptical categories permitting ACD (VP, CP). Consider the examples in (38). Sag (1976), Larson and May (1990) and Bruening (2001) observe the ability of ACD to disambiguate *de dicto/de re* readings in intensional contexts.

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[53] This second reconstruction of the elided clause interpretation is dependent on a different prosodic contour, one in which the pronoun *ty* is stressed and the following verb is destressed.
[54] Note that examples in (37) are also much closer structurally to the ACD examples in English in that the *i* particle, obligatory in the other cases is missing (since what is elided there is the whole CP).

Thus, while (38a) is ambiguous between the high and low scope of the QP with respect to the intensional verb 'want', its ACD counterpart (38b) has only a *de re* interpretation:

(38) a. Masha wanted every book that Kate wrote.
        de dicto: 'Masha wants the totality of books written by Kate.' (e.g., she is a fan)
             (want > every)
        de re: 'Every book that Kate wrote is such that Masha wants it'
             (every > want)
   b. Masha wanted every book that Kate did.
      (every > want), *(want > every)

This fact is predicted on the ACD account. The *de re* reading of (38a) obtains when *every book that Kate wrote* raises above the intensional verb *want* (39a). Since *every book that Kate did* <u>must</u> raise above *want* in (38b) in order to resolve the antecedent containment relation (39b), only a *de re* reading will be available.

(39) a. [every book that Kate wrote t] [Masha wanted t]

                      QR QUANTIFIER (DE RE)

   b. [every book that Kate did [_{VP} **want t**]] [Masha [_{VP} want t]]

             QR QUANTIFIER (DE RE) + RECONSTRUCT VP

Once again, Russian exhibits the same constellation of facts with comparable examples. Whereas (40a) has both *de dicto* and *de re* readings, (40b) shows only the latter, strongly arguing that resolution of ellipsis in the latter is dependent on scope.

(40) a. Maša xotela každuju knigu iz tex, čto Katja napisala
      Masha wanted every book (ACC) from those that Katja wrote
      'Masha wanted every book that Kate wrote'
      (want > every), (every > want)

   b. Maša xotela každuju knigu iz tex, čto i Katja
      Masha wanted every book from those that also Katja
      'Masha wanted every book that Kate did'
      (every > want), *(want > every)

Again, the fact that this property of ACD, described initially for English, holds also for Russian underscores the fundamental parallelism between the Russian and English constructions, despite superficial structural differences[55].

Finally, consider (41). Cecchetto (2004) notes that such sentences are ambiguous between a matrix and an embedded interpretation for the QP *at least one plane you did*, but further that it is not possible to combine a matrix and a distributive reading for the universal *every technician*. That is, if the matrix reading is selected, the QP *every technician* must have narrower scope than the QP *at least one plane*.

(41) I asked every technician to check **at least one plane you did**.
Matrix: There is at least one plane that you asked to check such that I also asked every technician to check it
Embedded: For every technician x, I asked x to check at least one plane you checked.
#Matrix + Dist: For every technician x, for at least one plane y such that you asked to check y, I asked x to check y.

Checchetto hypothesizes that this effect is probably due to the fact that the matrix reading requires long QR of the indefinite *at least one plane that you did*, which moves to a position in which it c-commands *every technician*. Thus, (41) shows that the QP that undergoes long QR is required to have wide scope with respect to a clause mate quantifier.

Again Russian shows basically the same fact, with the caveat that the matrix reading in fact seems to be the <u>only</u> one available for (42), the counterpart of (41). Once again it is impossible to combine this reading with the distributive reading of the higher QP.

(42) Ja poprosil každogo texnika proverit' po krajnei mere odin samolet (iz tex), čto i   ty
I   asked   every   technician to check at least one plane (from those) that also you
'I asked every technician to check at least one plane you did'
Matrix: There is at least one plane that you asked to check such that I also asked every technician to check it
#Embedded: For every technician x, I asked x to check at least one plane you checked.

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[55] It should be acknowledged that since Ionin (2001) allows for vP-level QR, her account, although it does not discuss ACD at all, is in fact equipped to handle ACD examples where the most local QR is sufficient to resolve the containment relation. However, this account cannot handle cases where non-local QR is required to derive the matrix interpretation or cases where what needs to be reconstructed is the whole elided CP.

#Matrix + Dist: For every technician x, for at least one plane y such that you asked to check y, I asked x to check y.

The embedded interpretation is plausibly absent from Russian for morphological reasons. If the matrix reading is selected, the reconstructed clause will be *čto i ty poprosil proverit'*, which is identical in morphology to the antecedent clause. If the embedded interpretation is selected, the reconstructed clause must be *čto i ty proveril*, with the verb having to agree with the clause's second-person subject *ty* and thus clashing in morphology with the verb in the antecedent clause. If this suggestion is correct, it provides further evidence for ACD in Russian insofar as potential reconstruction sources for the elliptical VP condition what scopal readings are made available (Fiengo and May (1994))[56].

Summarizing, Russian and English show a range of similarities in form and functioning of ACD, including the range of elliptical categories and interaction with other scopal elements. To the extent that the two constructions can be equated[57], we derive yet

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[56] While the explanation for the lack of the embedded reading provided in the main text seems to be a plausible one, the issue of morphological identity in Russian ACD is not a simple one. Thus, some morphological mismatch is clearly allowed, as demonstrated by sentences such as (i) below:

(i) Vania byl   gotov pogovorit' s   každym   iz tex,   čto i Maša
     Vania was   willing to talk   with everyone   of those that also Masha
     'Vania was willing to talk with everyone Masha was'

As can be seen from this example, morphological mismatch is due to the subject of the elided clause being feminine, whereas the subject of the antecedent clause is masculine. Thus, the reconstructed clause will be of the form *čto i Maša by**la** gotov**a** pogovorit'*. This is clearly the matrix reading. The embedded reading, which would require the reconstructed clause to be *čto i Maša pogovori**la*** is again unavailable, suggesting that it is the morphological mismatch on the lower verb that is not tolerated.

[57] There are additional differences between the Russian construction and the English ACD cases that should be noted. Note that in (32) the modal-like *budet* 'will' is absent in the second conjunct, despite being interpreted there. This is unlike in the English case (28) where the modal *could* appears in both conjuncts. I have addressed this in (31)/(32) by analyzing *budet* as part of the VP, but other solutions are possible; *budet* might also be analyzed as a true modal and the head of a higher ModalP, with (31) and
(32) reanalyzed as a case of ModalP (not VP) ellipsis:

(i) Vanja [ModalP budet smotret' [vse te   že fil'my, čto i   ego brat [ModalP **e**]].
     Vania   will   watch   all those ZHE movies that and his brother
     'Vania will watch all the movies his brother will'

Notice that this reanalysis, if correct, would not alter the conclusions drawn above regarding the need for QR. Rather (31)/(32) would simply be reanalyzed as cases of Antecedent Contained ModalP Ellipsis, rather that Antecedent Contained VP Ellipsis, and the derivation would proceed as is (31).

another powerful argument in favor of the QR analysis of Russian that tracks the analysis of quantificational sentences in English. The close similarity between the constructions in the two languages strongly suggests that if QR is necessary to derive ellipsis resolution for the English ACD, the same must hold for Russia.

2.4 Evidence from Disambiguation

The preceding sections have shown that, in addition to exhibiting basic scope ambiguities in cases like (11)-(14), Russian also shows the classic diagnostics for the existence of QR and the level of Logical Form: Inverse Linking, Weak Crossover, and Antecedent Contained Deletion phenomena parallel to those found in English[58].

In this section I will present arguments from disambiguation, which further suggest that syntactic movement is implicated in doubly quantified sentences in Russian. Specifically, I show that whenever a QP occurs inside a piece of structure from which overt movement is prohibited, the possibility of an inverse scope reading disappears[59]. This strongly implies covert movement in the ambiguous counterparts of such sentences, where syntactic movement is free to take place.

Another difference from English is that the Russian construction seems to be more constrained in terms of which QPs license it. Thus, while the examples in (32) were judged perfectly grammatical by the 20+ Russian speakers I consulted, the very similar example (ii) below with *každyj* (every) was judged ungrammatical by all but one.

(ii) */??Lena   pročitala   každuju iz   knig, čto   i   ee   podruga [$_{VP}$ e].
    Lena   read (PST.FEM) every from   books that   and   her   friend
    'Lena read every book her friend did'

One possible explanation for why examples such as (ii) above were found ungrammatical is that they were provided to the speakers without the *te že/to že* element, which in my judgment is optional, but which later feedback from the subjects suggested is in fact required for many speakers. Thus, the example (42) in the main text, complete with the *iz tex* element (a variant of *te že/to že)*, was found to be acceptable by most speakers even though it contains a different QP (*po krajne mere odin NP/at least one NP*). Evidently, more work is required to fully understand the Russian ACD construction. Nonetheless the general point about examples like (31)-(42) involving an Antecedent Containment Relation, and thus requiring QR, seems to me to survive these qualifications.

[58] Additional arguments for QR in Russian that come from hybrid wh-coordination and reflexive possessives, not reviewed in this chapter, can be found in Zanon (2014 a,b); (2015).

[59] Some of the data on disambiguation that I discuss in sections 3.5.1 and 3.5.2 are borrowed from Antonyuk (2006). The original examples have been slightly modified, however: to facilitate inverse scope for those speakers who do not like non-partitive QPs in the lower position, I use the partitive QP in *stat'i o každom iz professorov* rather than the original's non-partitive *stat'ji o každom professore.* For me, the stark contrast between the (a) and the (b) examples holds irrespective of whether the partitive or the non-partitive QP is used.

2.4.1 The Possessive DP Island Constraint

Russian obeys a **Possessive DP Island** constraint according to which movement from inside the possessive phrase is prohibited. Thus whereas (43a), with extraction of *o čem* 'about what' from a non-possessive DP (*stat'ju o čem* 'article about what') is acceptable, (43b) with extraction from a possessive (*Mašinu stat'ju o čem* 'Masha's article about what') is not.

(43) a. O   čem ty čital [**stat'ju**   __]?
           About what you read   article
           'What did you read an article about?'
   b. *O   čem ty čital [**Mašinu stat'ju** __]?
           About what you read   Maša's   article
           'What did you read Maša's article about?'

Consider now the sentences in (44a-c).

(44) a. [Kakoj-to student] čitaet   [**stat'ji**   o   každom iz professorov].
       Some   student read (PRES.SG) articles about every from professors
       'Some student reads articles about every professor'
       Surface scope: ✓(some > every)
       Inverse scope: ✓(every > some)
   b. [Kakoj-to student] čitajet   [**Mašiny stat'ji** o každom iz professorov].
       Some   student reads   Maša (POSS.PL) articles about every from professors
       'Some student reads Masha's articles about every professor'
       Surface scope: ✓(some > every)
       Inverse scope: * (every > some)
   c. [Kakoj-to student] čitajet [**stat'ji**   Marii (Ivanovny) o   každom iz professorov].
       Some   student   reads articles Maria Iavnovna(GEN) about every from professors
       'Some student reads articles of Maria (Ivanovna) about every professor'
       Surface scope: ✓(some > every)
       Inverse scope: ✓(every > some)

In (44a), the second quantifier (*každom iz professorov* 'every professor') occurs within a non-possessive nominal counterpart to (43a). In (44b), it occurs within a possessive nominal counterpart to (43b). While the surface scope reading in doubly quantified sentences like (44a) is generally more salient for some speakers, the contrast in scope possibilities between (44a,b) is nonetheless sharp for all Russian speakers. Whereas the first allows for an inverse scope reading, the second categorically resists inverse scope construal for every speaker I consulted; indeed even speakers who preferred surface scope perceived a sharp difference in

the two cases. This contrast is entirely expected if the inverse scope reading available in (44a) results from covert movement (QR), and if this movement is constrained by the same principles that constrain overt movement, in this case the prohibition on extraction from Possessor Phrases (see, for instance, Rappaport (2001)). Now consider example (44c)[60]. This example showcases another Possessor Phrase, available in Russian, a postnominal Genitive, with the same QP, *každom iz professorov,* 'every professor'. The inverse scope, or the high scope for the QP 'every professor' is available here. This is again unsurprising, given that in this case the QP is not inside a Possessor Phrase, but is merely inside an NP that takes a Genitive possessor as its complement, with overt movement in such cases being similarly allowed in Russian (Bailyn (1995)).

2.4.2 The Coordinate Structure Constraint

Overt movement obeys the **Coordinate Structure Constraint**, under which extraction from one conjunct only is prohibited[61] (45a,b) (Ross (1967)).

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[60] Russian speakers have a strong preference to use possessors in *–in* with short form names such as Maša (thus, Mašin). Such names resist the Genitive form, and correspondingly the full name Maria needs to be used. Some speakers, myself included, prefer yet longer names if the Genitive form is to be used, hence Maria Ivanovna (with the patronymic) may be preferable for such speakers for examples such as (44c) to sound fully natural.

[61] Fox (2000) notes an interesting apparent violation of the CSC, provided in (i). On the reading where "every girl in this class" scopes over the subject "a boy" and binds the pronoun "her", QR appears to extract out of only <u>one</u> conjunct of the conjoined x-phrases, in violation of CSC:

(i)   A boy [x_1 wants to date [every girl in this class]$_1$] and [x_2 has already asked her$_1$ out].
        (every > a),*(a > every, on the reading where every binds the pronoun)

Fox ties this possibility to the combined effects of his Scope Economy Principle, which sanctions the raising of the universal in the presence of the existential subject, and the pronoun in the second conjunct, which avoids a potential vacuous binding violation in the post-raising structure (see Ruys 1993). Both conditions are apparently necessary, as shown by the contrast between (i) and (iia,b):

(ii)   a. Bill [x_1 wants to date [every girl in this class]$_1$] and [x_2 has already asked her$_1$ out].
        *(every > a)
        b. A boy [x_1 wants to date [every girl in this class]$_1$] and [x_2 has already made plans].
        *(every > a), (a > every)

In (iia), the lack of an appropriate quantified subject disables raising of "every girl in this class" and binding of "her". In (iib) absence of the pronoun in the second conjunct yields a vacuous binding violation in the second conjunct. Russian shows the identical contrasts in the parallel data (i') and (ii'), hence the same qualifications of the CSC are necessary with respect to Russian scope.

(45) a. Bill will [$_{VP}$ [$_{VP}$ cook supper] and [$_{VP}$ wash the dishes]].
     b. **What** will Bill [$_{VP}$ [$_{VP}$ cook __] and [$_{VP}$ wash the dishes]]?

Rodman (1976) notes a parallel effect with quantifier scope construal in English. Consider the examples in (46), based on Rodman's example. Whereas (46a) is ambiguous, allowing an inverse scope construal, (46b), where the second quantifier is embedded inside a conjunction, is not.

(46) a. A soldier found every student. (a > every); (every > a)
     b. A soldier [$_{VP}$ found every student] and [$_{VP}$ saved him] (a > every); *(every > a)

As Rodman notes, the phenomena in (45) and (46) can be brought together under the assumption that question formation and scope assignment involve the same mechanisms, and hence what blocks the one will block the other. In our terms, the relevant mechanism is movement, which is overt in the first case (Wh-movement) and covert in the second (QR).

(i')   Kakoj-to mal'čik [x_1 xočet vstrečat'sja [s každoj devočkoj v etom klasse]$_1$]
         Some   boy   wants to.date   with every girl in this class
         i   [x_2 uže priglasil jejo$_1$ na svidanije].
         and   already asked her on date
         'Some boy wants to date every girl in this class and has already asked her out.'
         (every > some), *(some > every)

(ii') a. Vanja [x_1 xočet vstrečat'sja [s každoj devočkoj v etom klasse]$_1$]
          Vania   wants to.date   with every girl   in this class
          i   [x_2 uže priglasil jejo$_1$ na svidanije].
          and   already asked her on date
          'Vania wants to date every girl in this class and has already asked her out.' *(every > a)
     b. Kakoj-to mal'čik [x_1 xočet vstrečat'sja [s   každoj devočkoj v etom klasse]$_1$]
          Some   boy   wants to.date   with every girl   in this class
          i   [x_2 uže   vse splaniroval]
          and   already all planned
        'Some boy wants to date every girl in this class and has already made plans.' *(every > a)

These data underscore again the basic parallelism between the Russian and the English scope facts. I hope to address the application of Fox's Scope Economy principle to Russian quantifier data more fully in separate work.

Russian shows the same distribution of form and interpretation. Like English, Russian obeys the Coordinate Structure Constraint on movement; thus (47b) is excluded in parallel to (45b).

(47) a. Vania [VP[VP prigotovit užin] i [VP pomoet posudu]].
      b. ***čto** Vania [VP[VP prigotovit __] i [VP pomoet posudu]]?

Correlatively, Russian shows the same constraint on quantifier scope construal. Whereas (48a) is scopally ambiguous, (48b), which embeds the second quantifier (*každom professore* 'every professor') within a conjunction, is not.

(48) a. Kakoj-to student ljubit každogo professora.
          Some   student loves every   professor
          'Some student loves every professor'
          Surface scope: ✓(some > every),
          Inverse scope: ✓(every > some)

      b. Kakoj-to student ljubit [[Mašu] **i**   [každogo professora]].
          Some   student loves Maša **and** every   professor
          'Some student loves Maša and every professor'
          Surface scope: ✓(some > every)
          Inverse scope: * (every > some)

Once again, even Russian speakers showing a very general preference for surface scope perceive a strong contrast in (48a,b). Whereas the first sentence is perceived as potentially ambiguous, however dispreferred the inverse scope construal may be for some speakers, the second sentence categorically excludes the inverse scope construal, for all Russian speakers.

2.4.3 Complex NP Constraint

In parallel to results with coordinate structures, Rodman (1976) notes another pairing of question formation and scope interpretation. English is known to forbid extraction from "complex noun phrases," such as relative clauses. Thus the position occupied by *John* in (49a) cannot be questioned, as shown in (49b):

(49) a. A doctor will examine [the possibility that we give **John** a tranquilizer].
      b. ***Who** will a doctor examine [the possibility that we give ___ a tranquilizer]?

Consider now the pair in (50a,b), due to Reinhart (2006). (50a), with the universal QP *every new patient* in direct object position readily allows the surface or the inverse scope

in English. By contrast, (50b) can only be understood on its surface scope interpretation. The position occupied by *John/every new patient* in (49) and (50) evidently does not permit its occupant either to be extracted or to obtain wide scope. [62]

(50) a. A doctor will interview **every new patient**.
       (a > every), (every > a)
   b. A doctor will examine the possibility that we give **every new patient** a tranquilizer.
       (a > every), *(every > a)

Parallelism suggests that the same mechanism is at work in both. Again, for us the relevant mechanism is movement, which is overt in the first case (49b) and covert in the second (QR in (50b)).

Once again Russian shows the same patterning of form and interpretation. Russian also obeys the Complex NP Constraint on extraction, as shown by the pair in (51a,b):

(51) a. Kakoj-to professor rassmotrit   neobxodimost' togo, čtoby vygnat' Ivana.
       Some   professor will.examine necessity   that in order to.expel Ivan
       'Some professor will examine the necessity of expelling Ivan'
   b. ***Kogo** kakoj-to professor rassmotrit neobxodimost' togo, čtoby vygnat' __.
       Who some   professor will.examine necessity   that in order to.expel

Russian also forbids wide scope from the position that forbids extraction. Thus whereas (52a) is ambiguous and allows an inverse scope construal, (52b) does not.

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[62] This result exemplifies the well-known clause-bounded nature of QR. Similar results are obtained when we consider adjunct islands. Thus, in (ib) below wh-movement from inside an adjunct clause is prohibited.

(1)   a. Mary went home because she needed to do what?
       b. *What did Mary go home because she needed to do t?

Quite expectedly, Quantifier Raising from inside adjunct clauses is disallowed as well, accounting for the lack of interaction between the two QPs:

(ii)   a. Some student went home because every class was canceled.
       *(every > some)
       b. Some student went home because she needed to complete every assignment.
       *(every > some)

The exact same situation holds in Russian as well:

(iii)   a. Kakoj-to   student ušel   domoj potomu čto   každoe zanjatie otmenili.
          Some   student went   home because that   every class   cancelled
       *(every > some)
       b. Kakoj-to student ušel domoj potomu čto emu nužno zakončit'   každoe zadanie.
          Some   student went home because that he (DAT) need complete every assignment
       *(every > some)

(52) a. Kakoj-to professor vygonit   každogo studenta
        Some   professor will.expel every   student
        Surface scope: ✓(some > every)
        Inverse scope: ✓(every > some)

   b. Kakoj-to professor rassmotrit   neobxodimost' togo, čtoby   vygnat'
        Some   professor will.examine necessity   that in order to.expel
        každogo studenta
        every   student
        Surface scope: ✓(some > every)
        Inverse scope: * (every > some)

Again, the contrast in judgments for this pair is quite sharp for Russian speakers.

Again we have seen strong syntactic evidence from a wide range of diagnostic constructions supporting the claim that Russian allows QR with exactly the same properties as those that have been at various times observed for QR in English. It appears then that whatever the effects the possibility of overt word order permutations such as Scrambling might have on the language's properties, it does not affect the presence of and the properties of QR as far as the constructions reviewed above are concerned.

2.5 Quantifier Scope Elsewhere in Slavic

Previous sections of this chapter have demonstrated pervasive parallelism between English and Russian with respect to quantifier scope phenomena. Below I briefly review data suggesting that this parallelism is not confined to Russian, but in fact extends more broadly into Slavic. Specifically, I show that two or more of the core constructions diagnostic of QR, discussed above – Inverse Linking, Weak Crossover and Antecedent Contained Deletion – are exhibited in languages representing the main branches of Slavic, including Eastern Slavic (Russian, Ukrainian), Western Slavic (Polish), and Southern Slavic (Bulgarian).

2.5.1 Further Evidence for QR in Eastern Slavic: Ukrainian

Major languages of the Eastern Slavic branch include Russian, Ukrainian, and Belarusian. We have already noted extensive evidence for QR in Russian. Very similar facts obtain in Ukrainian. Thus, Ukrainian allows the Inverse Linking construction, exhibited in (53); it shows Weak Crossover effects, as seen in (54); finally, Ukrainian displays Antecedent Contained Deletion, as seen in (55).

The sentences in (53) demonstrate Inverse Linking in Ukrainian. Thus, whereas example (53a) requires the use of a partitive QP in the embedded position for many speakers in order for the example to be fully grammatical on its inversely linked interpretation, example (53b) shows that this is not a general requirement and that non-

partitive QPs can easily scope over the containing phrase, suggesting that QR takes place in all of such examples.

(53) **Inverse Linking**

    a. [Jakyis'meškanets'] [kožnogo   iz   mist$_j$]]   znevažaje jogo$_j$.

       Some dweller (NOM) every   from cities (GEN) despises it (ACC)

       'Someone from every city despises it'

    b. U   Mykhajlyka je   [igraška   [v   kožnij kimnati budynku]]

       To   Mykhajlyk there is toy$_{(ACC)}$ in   every room house

       'Mykhajlyk has a toy in every room of the house'

Given that Ukrainian, just like Russian, obeys a ban on Backward Pronominalization (54b), examples such a (54a) need to be supplemented by those like (54c), where the offending pronoun is embedded in an extra layer of structure. As has already been demonstrated for Russian, embedding the pronoun in an extra layer of structure does not save sentences with a QP from a WCO violation, whereas those with a Referring expression like (52b) improve dramatically.

(54) **Weak Crossover**

    a. *Jogo$_i$ maty   liubyt'   [kožnogo   studenta]$_{i.}$

       His mother$_{(NOM)}$ loves   every   student$_{(ACC)}$

       *'His$_i$ mother loves every student$_i$'

    b. [Avtomobil' [jogo$_j$ bat'kiv]]   dratuje Ivana$_j$

       Car$_{(NOM)}$ his parents$_{(GEN)}$ annoys Ivan$_{(ACC)}$

       'His$_j$ parents' car annoys Ivan$_j$'

    c. [Avtomobil' [jogo$_j$ bat'kiv]]   dratuje   [kožnogo pidlitka]$_j$

       Car$_{(NOM)}$ his parents$_{(GEN)}$ annoys   every teenager$_{(ACC)}$

       'His$_j$ parents' car annoys every teenager$_j$'

The data in (55) demonstrate two examples of ACD in Ukrainian that are very similar in structure to the Russian examples discussed earlier in the chapter. Example (55b) in particular similarly demonstrates the well-known fact that when sentences with intensional verbs are made part of an ACD structure, the *de dicto* reading disappears, and only the *de re* reading, or the high scope for the QP with respect to the verb, remains. These data suggest, just like in the Russian case, that despite structural differences between ACD in Ukrainian and English, the construction nevertheless involves a containment relation that requires QR for its resolution and that ACD in Ukrainian is characterized by the same basic properties that hold of ACD in English.

(55) **Antecedent Contained Deletion**

a. ?Ivan mig   vidvidaty   kožnogo iz   tyx,   ščo   i   Marija.
  John   could visit   everyone from those what   also Mary
  'John could visit everyone Mary could'

b. Marija xotila kožnu knygu iz tyx,   ščo   i   Kateryna
  Maria wanted every book   from those   what   also Kateryna
  'Maria wanted every book Katherine did' (every > want)

Thus, just as we might expect given its close relation to Russian, Ukrainian gives strong evidence for the presence of Quantifier Raising.

2.5.2 QR in Western Slavic: Polish

Polish, a West Slavic language, shows a somewhat more complex picture than Russian and Ukrainian. In Polish, Inverse Linking appears to be ungrammatical, as demonstrated in (56)[63]. At the same time, the language does appear to exhibit both Weak Crossover effects (57) and to show Antecedent-Contained Deletion (58):

(56) **Inverse Linking**
    ?* [Każdy   z   [jakiegoś   miasta_j]]   nienawidzi   je_j.
      Someone   from   every   city   despises   it
     'Someone from every city despises it'

(57) **Weak Crossover**
    *Jego_i   matka koča [kazdego   studenta]_i.
     His   mother loves every   student
     *'His_i mother moves every student_i'

(58) **Antecedent Contained Deletion**
    ?Jan   mógł odwiedzić   każdego kogo Maria mogła.
     John   could visit   everyone who Mary   could
     'John could visit everyone Mary could'

Thus, given that two of the three tests suggestive of QR provided in this section yield expected results for Polish, we have good reasons to believe Quantifier Raising does take place in the language. More research is required to determine why and if Inverse Linking is indeed ungrammatical in Polish and whether or not this fact is indicative of additional distinctions with respect to QP scope in this language or is simply a construction-specific restriction.

2.5.3 QR in South Slavic (Western Group): Bulgarian

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[63] I thank Barbara Citko (p.c.) for providing the Polish data.

While initial evidence provided in (59a) shows that Inverse Linking Construction is ungrammatical in Bulgarian with non-distributive QPs, the use of distributive *po* with the indefinite, as demonstrated in (59b) below, renders the construction acceptable, which suggests QR does take place in such examples[64].

(59)   **Inverse Linking**

a. *Njakoj   ot   vseki grad$_i$ go$_i$ mrazi
   Someone   from   every city   it   hates

b. Pone   po   edin   čovek ot   vseki grad$_i$ go$_i$ mrazi
   At-least   distr.po   one   person from every city   it   hates
   'Someone from every city hates it'

The other two constructions similarly suggest QR is indeed available in Bulgarian. Thus, Weak Crossover in the language is ungrammatical, suggesting covert movement of a QP across a co-indexed pronoun:

(60)   **Weak Crossover**

* Majka   mu$_i$ haresva   [vseki učenik]$_i$
   Mother   his   likes   every   student
   *'His$_i$ mother loves every student$_i$'

Finally, Antecedent Contained Deletion is allowed in the language, which further suggests availability of QR (note the structural similarities between the Bulgarian ACD and the construction in Russian and Ukrainian, which provide additional reasons to believe other properties of ACD discussed earlier will most likely hold of ACD in Bulgarian as well).

(61)   **Antecedent Contained Deletion**

Ivan   možeše   da   poseti vseki   kogoto i   Maria   možeše
Ivan   could   subj.   visit   everyone who   also Maria   could
'John could visit everyone Mary could'

This survey, while necessarily brief, nonetheless suggests that the features of quantificational sentences identified here for Russian are not atypical for Slavic. More particularly, if claims of scope fludity hold for Russian, as I have argued, they appear to hold more broadly in Slavic as well[65].

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[64] I am grateful to Roumyana Pancheva (p.c.) for providing the Bulgarian data.
[65] Godjevac (2003) presents a convincing case arguing that the data from Serbo-Croatian require postulation of a syntactic level such as LF and an operation such as QR to account for a variety of

2.6 Conclusions

In this chapter I have extended the findings of Ionin (2001) to argue that covert Quantifier Raising, both local (as argued by Ionin) and non-local, as argued here, is available in Russian and furthermore that non-local Quantifier Raising in Russian exhibits properties fully parallel to those found in English. The point, however, is not simply the availability of non-local QR, which is only unequivocally evidenced in certain syntactic contexts , but that QR in Russian seems to be available in and exhibiting the same properties in shows in English, a language with fixed word order. This result strongly suggests that the more extensive availability of overt movement in Russian through Scrambling has no direct grammatical correlation with the availability of covert movement of quantifiers. Sentences with multiple QPs in Russian are ambiguous in exactly the same contexts where their English counterparts are ambiguous, despite the former being a Scrambling language and the latter not. I have also briefly reviewed data from the broader Slavic family suggesting that the situation obtaining in Russian obtains there as well: other languages from the major branches of Slavic also show clear evidence for QR and are thus also not scope rigid, despite the presence of Scrambling in their grammars. Taken together these results cast serious doubt on the general correlation suggested by Beck (1996) and pursued by Ionin (2001) and Bobaljik and Wurmbrand (2012) that availability of overt movement in a language restricts availability of covert movement. Neither in Russian nor arguably in the broader Slavic family does this correlation hold. Finally, it should be clear that the properties of scope-rigid languages - assuming they truly exist - should not be induced from Russian, nor from Slavic generally, since the latter simply are not members of the scope-rigid class.

QP scope data in the language. She further argues that Serbo-Croatian prefers topical interpretation of left-most DPs in null contexts.

CHAPTER 3. SCOPE FREEZING

3.1 Overview of Chapter 3

In this chapter I examine another phenomenon from the literature on scope in English, namely, surface scope freezing. I again argue that Russian is directly comparable to English in exhibiting surface scope freezing in the same constructional contexts where English does. Indeed, I will also show that the range of Russian constructions exhibiting scope freezing is actually much broader than in English, including at least the following:

(1)   a.   dative alternation
       b.   spray-load alternation
       c.   spray-load type verbs with internal argument reordering
       d.   other ditransitives with internal argument reordering
       e.   "reflexive monotransitives"
       f.   long-distance scrambling of QPs
       g.   local scrambling of QPs

(1a-g) constitute a range of syntactic contexts whose diversity poses a serious challenge for current accounts of scope freezing (Bruening 2001; Larson and Harada 2011). Nonetheless I argue that despite the many specific differences between these constructions, they are in fact amenable to a unified account, based upon what I term the Scope Freezing Generalization (2)[66]:

(2)   **Scope Freezing Generalization (SFG):**   *Scope freezing results when one QP raises over another to a c-commanding position.*

Thus I argue that the factor uniting all the scopally frozen cases in (1) is the presence of overt raising of a lower QP across a higher one. Scope freezing itself I analyze in terms of a relation $\mathfrak{R}$, established directly between the two QPs in contexts where overt QP crossing takes place. Thus unlike previous theories of scope freezing that view the phenomenon either as a relation between a higher probe and a QP goal (Bruening 2001) or as a result of relative ordering of the two QPs wrt to the phase (Harada and Larson 2009), my account proposes that in scope freezing cases there exists a special relation between the two QPs themselves, similar to that existing between the two QPs in an inversely linked structure, or a binding relation. I propose a possible formalization in the spirit of Stanley and Szabó (2000) and Stanley (2002) whereby the nominal restriction of the now lower QP1 (after overt movement of QP2 across QP1 has taken place) is

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[66] I argue that (2) describes the state of affairs in Russian and in closely related Ukrainian. A broader question, which falls outside the scope of this thesis, is whether SFG is accurate cross-linguistically, e.g., whether it applies to languages such as English, Japanese, German and Norwegian. I plan to explore this question in future work.

associated with a domain variable bound by the now higher QP2. This binding relation established due to overt crossing of QPs is what precludes the structurally lower QP1 from raising past QP2, thus accounting for the relative nature of scope in scope freezing contexts, where QP1 is able to undergo further (covert) movement so long as it stays within the scope of the higher QP2 (Larson 1990). I also argue that the overt instance of movement of the lower QP2 across the higher one is most likely an instance of Topicalization, accounting for the uniqueness presupposition associated with the now higher QP.

3.2 Scope Freezing in English

Although English is a scope fluid language, certain contexts are known to render inverse scope readings difficult to inaccessible. Two such contexts have been noted in the literature: the dative alternation and the *spray-load* alternation.

3.2.1 Scope Freezing in the English Dative Alternation

Lebeaux, cited in Larson (1990), notes that English datives show "frozen scope" in their double object form. Thus whereas an English prepositional dative like (3a) allows either the direct object or the P-object to take wider scope, the corresponding double object form (3b) requires scope to be understood according to its surface order, i.e., $\exists > \forall$. The difference in scope possibilities is particularly notable in pairs like (4), where we insert the modifier *different*, which requires a wider scope quantifier to distribute beneath (Bruening 2001). Presence of *different* selects the wide scope universal reading in (4a), but yields unacceptability in (4b), presumably because a wide scope reading is unavailable.

(3) a   The teacher gave **a book** to **every student**.   ($\exists > \forall, \forall > \exists$)
     b   The teacher gave **a student every book**.   ($\exists > \forall, *\forall > \exists$)

(4) a. The teacher gave **a different book** to **every student**.   ($\forall > \exists$)
     b. #The teacher gave **a different student every book.**   (*$\forall > \exists$)

3.2.2 Scope Freezing in the English *Spray-Load* Alternation

Schneider-Zioga (1988), also cited in Larson (1990) observes a scope contrast in the *spray-load* alternation parallel to that found with datives. Like the PP dative in (3a), the locative variant of the *spray-load* alternation in (5a) is ambiguous. And like the double object dative in (3b), the *with*-variant of the *spray-load* alternation is unambiguous,

having only the reading corresponding to the surface order (5b) [67]. And once again using the modifier *different*, the constrast registers as difference of acceptability (6a,b).

(5) a. Maud draped a cover over every armchair. ($\exists > \forall, \forall > \exists$)
     b. Maud draped an armchair with every cover. ($\exists > \forall, *\forall > \exists$)

(6) a. Maud draped a different sheet over every armchair. ($\forall > \exists$)
     b. #Maud draped a different armchair with every sheet. $*(\forall > \exists)$

3.2.3 The <u>Relative</u> Nature of Scope Freezing

Larson (1990, fn. 10) makes the observation that the scope restriction on the outer quantifier in the double object construction and in the *with* variant of the *spray-load* construction appears to be a <u>relative</u> rather than an absolute one. That is, the outer quantifier is allowed to take wider scope. It is simply not allowed to take scope wider than the inner quantifier.

That the outer quantifier can take wider scope is shown by the possibility of Antecedent-Contained Deletion with a quantified outer object phrase (7a). As discussed in Chapter 2, under the widely adopted analyses of ACD put forth in Sag (1976), Williams (1977), May (1985) and Larson and May (1990), reconstruction of the deleted VP requires the quantified DP to have scope at least as wide as the VP serving as its reconstruction source[68]. This entails that in (7a) *everything that Bill did e* must scope at least as high as the VP headed by *give*. Note further that (7a) is understood so that the individual receiving all the gifts from John is the same one receiving all the gifts from Bill. This reading is obtained through the derivation in (7b-c).[69] First the inner object raises (7b); then the outer object raises taking scope beneath it, preserving their *in situ* order (7c) ($\exists > \forall$). VP then reconstructs, yielding the correct interpretation (7d):

(7) a. John [$_{VP}$ gave someone [everything that Bill did [$_{VP}$ e]]].
         ($\exists > \forall$)
         'John gave someone everything that Bill gave him/her'

---

[67] Larson (1990) uses the parallelism in scope behavior between the *spray-load* construction on the one hand and the ditransitive construction on the other hand to argue for the corresponding structural parallelism between locatives and prepositional datives and between *with*-variants and double object structures respectively.

[68] But see Jacobson (1992) for an account of ACD as verb ellipsis. My thanks to Lucas Champollion (p.c.) for bringing this paper to my attention.

[69] In (7b-c) I assume for concreteness that the quantifiers are assigned minimal scope attaching to VP; nothing hinges on this assumption.

b.   John [$_{VP}$ [someone]$_1$ [$_{VP}$ gave t$_1$ [everything that Bill did [$_{VP}$ e]]]]].

   |_____| RAISE

   ($\exists > \forall$)

c.   John [$_{VP}$ [someone]$_1$ [$_{VP}$ [everything that Bill did [$_{VP}$ e]]$_2$ [$_{VP}$ gave t$_1$ t$_2$]]]

   |_____| RAISE

   ($\exists > \forall$)

d.   John [$_{VP}$ [someone]$_1$ [$_{VP}$ [everything that Bill [$_{VP}$ gave t$_1$ t$_2$]]$_2$ [$_{VP}$ gave t$_1$ t$_2$]]]

   |_____| RECONSTRUCT

   ($\exists > \forall$)

Note that in the absence of the restriction on quantifier order imposed by the double object construction, (7a) could receive the alternative derivation in (8a-c), where the order of quantifiers inverts in step (8b) ($\exists > \forall \rightarrow \forall > \exists$), and is maintained after reconstruction (8c), yielding the interpretation that all the things given by Bill to someone were also given by John to someone, possibly different people in each case.

(8)   a.   John [$_{VP}$ [someone]$_1$ [$_{VP}$ gave t$_1$ [everything that Bill did [$_{VP}$ e]]]]].

   |_____| RAISE

   ($\exists > \forall$)

   b.   John [$_{VP}$ [everything that Bill did [$_{VP}$ e]]$_2$ [$_{VP}$ [someone]$_1$ [$_{VP}$ gave t$_1$ t$_2$]]]

   |_____| RAISE

   ($\forall > \exists$)

c.   John [$_{VP}$ [everything that Bill did [$_{VP}$ [someone]$_1$ [$_{VP}$ gave t$_1$ t$_2$]]]]$_2$

   RECONSTRUCT |_____|

   [$_{VP}$ [someone]$_1$ [$_{VP}$ gave t$_1$ t$_2$]]]

RECONSTRUCT

   ($\forall > \exists$)

The reading represented by (8c) does not seem to be available with (7a), hence scope freezing is observed even when a quantified outer object is forced to take scope at the VP level or higher for ACD reconstruction.

A second illustration of the ability of outer objects to take scope and their continued adherence to scope freezing is observed in the context of higher intensional predicates. Consider example (9a), due to Larson (1990), which shows the three readings (9b-d) according to whether the quantified objects of *rent* are read opaquely (*de dicto*) or transparently (*de re*) with respect to the intensional predicate *promise*:

(9) a. I promised to rent someone every apartment in the building.
     b. 'I promised that I would rent someone every apartment in the building.'
     c. 'I promised to someone that I would him/her every apartment in the building.'
     d. 'There is someone such that for each every apartment in the building,
     I promised to rent him/her it'

Thus, both *someone* and *every apartment in the building* can be read opaquely (*de dicto*) in relation to *promise*, with the existential taking scope over the universal (9b). Alternatively, *someone* can be read transparently (*de re*) and *every apartment in the building* read opaquely (*de dicto*) (9c). Finally, both DPs can be read transparently (*de re*), again with the existential taking scope over the universal (9d). As Larson notes, the pattern here is that the scope of *every apartment in the building* is not restricted with respect to *promise* but only with respect to *someone*. The universal must preserve narrow scope in relation to someone (10a-c):

(10) a. promise > ∃ > ∀   = (9b)
      b. ∃ > promise > ∀   = (9c)
      c. ∃ > ∀ > promise   = (9d)

A final piece of evidence for the relative nature of scope freezing is provided by Higginbotham, who notes the contrast in (11):

(11) a. No one gave Bill anything.
      b. ??No one gave someone anything.

Higginbotham suggests the contrast is explained if polarity items such as *anything* must occur within the immediate scope of their triggers at LF (as initially argued by Linebarger (1987)). (11b) is ruled out since *anything* must remain within the scope of *someone* and hence cannot occur in the immediate scope of *no one* at LF. (11a) by contrast is allowed since *Bill*, as a nonquantifier, does not restrict the scope of *anything*. Bruening (2001) provides other examples that demonstrate the same conclusion. In (12a), the outer, quantificational object is able to undergo QR and obtain scope above the quantificational subject because the inner object is non-quantificational. In (12b) the outer QP is able to take scope above the subject (supported by the possibility of the distributive *different*), but it still must scope below the inner object QP:

(12) a. A (different) teacher gave me every book. ($\forall > \exists$)

b. A (different) teacher gave someone every book.
(someone > every > a): there is someone x, such that for every book y,
a different teacher z, z gave y to x.

What all of these examples demonstrate is that while scope is frozen between the two QPs in a double object construction or a related *spray-load* construction such that the outer/lower object is unable to scope above the inner/higher object, the freezing is not absolute, and the lower object is able to raise in principle, so long as it stays within the scope of the higher object. Thus, we see that the scope freezing found in English ditransitives and the *with*-variant of the *spray-load* construction is a robust phenomenon that is of relative, rather than absolute nature, holding between the two object QPs but with the outer object QP still able to move, as long as it stays within the scope of the inner QP[70].

3.3 Scope Freezing in Russian Argument Alternations

Given the results in the previous chapter in which Russian was shown to behave similarly ro English with respect to scope, we might expect the Russian equivalents of the double object and *with*-variant of the *spray-load* construction to show the same scope freezing behavior. And in fact this expectation is correct. As we will see below, however, Russian exhibits scope freezing in a whole set of additional constructions involving argument alternation or permutation.

3.3.1 Scope Freezing in the Russian Dative Alternation

Russian datives, which involve an accusative case marked theme and a dative case marked goal, show effects very similar to those observed in English. In the ACC > DAT order with two quantified objects the sentences are ambiguous (13a)/(14a) . In the DAT > ACC order with two quantified objects the sentences are unambiguous and the scope corresponds to the surface order (13b)/(14b)[71]:

(13) a. Maša   prostila [kakoje-to predatelstvo]   (každoi podruge)
        Masha   forgave [some betrayal] (ACC)   [every girlfriend] (DAT)
        'Masha forgave some betrayal to every girlfriend'   ($\exists > \forall$), ($\forall > \exists$)

---

[70] Some syntactic tests, supporting the conclusion that scope is indeed frozen between the two object QPs, first discussed in Bruening (2001), will be offered in the following chapter when discussing parallel Russian scope data.

[71] As will be shown in Chapter 4, not all Russian DAT >> ACC ditransitives show this scope pattern.

b. Maša   prostila   (kakoi-to podruge)   každoje predatelstvo
    Masha   forgave   [some girlfriend] (DAT)[every betrayal] (ACC)
    'Masha forgave some girlfriend every betrayal'   (∃ > ∀), *(∀ > ∃)

(14) a. Učitel'   podaril   kakuju-to knigu   každomu studentu.
        [Teacher]NOM.MSC presented [some book] (ACC.FEM)[every student](DAT.MSC)
        'The teacher presented some book to every student'   (∃ > ∀), (∀ > ∃)
    b. Učitel'   podaril   kakomu-to studentu   každuju knigu.
        [Teacher]NOM.MSC presented [some student] (DAT.MSC) [every book] (ACC.FEM)
        'The teacher presented some student with every book'   (∃ > ∀), *(∀ > ∃)

3.3.2 Scope Freezing in the Russian *Spray-Load* Alternation

One group of Russian *spray-load* sentences shows a very close parallel to English in form, insofar as they involve an accusative followed by a locative PP in one variant (15a)/(16a) and an accusative followed by an oblique instrumental in the other (15b)/(16b) [72],[73]. Consider the data below.

(15) a. Vanja zagruzil [kakoe-to seno]   [na každyj gruzovik]
        Vania loaded   [some hay] (ACC) [on every truck] (ACC)
        'Vania loaded some hay on every truck'   (∃>∀), (∀>∃)
    b. Vanja   zagruzil   [kakoj-to gruzovik]   [každym vidom sena]
        Vania   loaded   [some truck] (ACC)   [every type of hay] (INSTR)
        'Vania loaded some truck with every type of hay'   (∃>∀),*(∀>∃)

(16) a. Vanja zalil   [kakoe-to toplivo]   [v   každyj bak]
        Vania poured/filled [some gas] (ACC)   [into every tank] (ACC)
        'Vania poured some gas into every tank'   (∃>∀), (∀>∃)

    b. Vanja zalil   [kakoj-to bak]   [každym vidom topliva]
        Vania poured/filled [some tank] (ACC)   [every type of gas] (INSTR)
        'Vania filled some tank with every type of gas'   (∃>∀),*(∀>∃)

Note that the Russian examples are fully parallel to English in terms of scope. Specifically (15a)/(16a) are parallel to (13a)/(14a) in being scopally ambiguous, whereas (15b)/(16b) are parallel to (13b)/(14b) in being unambiguous and allowing surface scope

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[72] Scope facts in Russian *spray-load* constructions have also been discussed in Dudchuk (2006) and Tsedryk (2009).

[73] Some additional properties of the Russian *spray-load* construction, such as the entailment relations between the two variants, which further argue for the complete parallelism between these constructions in Russian and in English, will be discussed in Chapter 4.

only. The *spray-load* alternation seems to be much less productive in Russian than it is in English, however. Appendix I provides a full list of what appear to be bona-fide *spray-load* verbs, all of which exhibit the above scope contrast.

3.3.3 Scope Freezing with the Russian *Spray-Load* Type Verbs

The following verbs (and many more like them provided in Appendix I) are interesting in that they correspond to the English *spray-load* verbs semantically, but they are in fact not able to participate in the *spray-load* alternation insofar as the arguments do not alternate in case. Nonetheless, and perhaps surprisingly, these verbs do exhibit the scope freezing observed with true *spray-load* verbs. As can be seen in (17) – (19) below, the verbs in this group take two internal arguments, neither of which is headed by a preposition, as is the case with true *spray-load* verbs. Both arguments can be realized as quantifier phrases, one marked with Accusative case, and the other with Instrumental. In all three of the examples below, the order on which the Instrumental-marked QP precedes the Accusative-marked QP is scopally ambiguous, while the opposite order exhibits scope freezing:

(17) a. Maša nakryla   [kakoj-to   prostynej]   [každoe   kreslo]
        Masha covered   [some   sheet] (INSTR) [every   chair] (ACC)
       'Masha put some sheet over every chair'   (∃>∀), (∀>∃)
     b. Maša nakryla   [kakoe-to   kreslo]   [každoj   prostynej]
        Masha covered   [some   chair] (ACC)   [every   sheet] (INSTR)
       'Masha covered some chair with every sheet'
       (∃>∀), *(∀>∃)

(18) a. Maša obryzgala   [kakoj-to   kraskoj]   [každuju   stenu]
        Masha sprayed   [some   paint] (INSTR) [every   wall] (ACC)
       'Masha sprayed some (color of) paint over every wall'
       (∃>∀), (∀>∃)
     b. Maša obryzgala   [kakuju-to   stenu]   [každoj   kraskoj]
        Masha sprayed   [some   wall] (ACC)   [every   paint] (INSTR)
       'Masha sprayed some wall with every (color of) paint'
       (∃>∀), *(∀>∃)

(19) a. Maša zapolnila   [kakim-to   koktejlem]   [každyj   stakan]
        Masha filled   [some   drink] (INSTR) [every   glass] (ACC)
       'Masha poured some drink in every glass'
       (∃>∀), (∀>∃)
     b. Maša zapolnila   [kakoj-to   stakan]   [každym   koktejlem]

Masha filled   [some   glass] (ACC)   [every   drink] (INSTR)

'Masha filled some glass with every drink'

(∃>∀), *(∀>∃)

As can be seen in (17) – (19) above, the verbs in this group take two internal arguments, neither of which is headed by a preposition, as is the case with true *spray-load* verbs. Both arguments can be realized as quantifier phrases, one marked with Accusative case, and the other with Instrumental. In all three of the examples, the order on which the Instrumental-marked QP precedes the Accusative-marked QP is scopally ambiguous, while the opposite order exhibits scope freezing.

3.3.4 Scope Freezing in the Other Russian Ditransitive Constructions

Russian ditransitive verbs represent a rather broad class of predicates that can take two case-marked arguments, such as (13/14a-b), with direct object marked with Accusative case and indirect object marked with Dative case, or it take an argument phrase marked with structural Accusative case and an argument realized as a Prepositional Phrase (20a-b) or an Oblique-marked argument and a PP argument (21a-b).

(20) a. Maša potrebovala   [kakie-to dokumenty] (s každogo posetitelja)
     Masha demanded   [some documents] (ACC) [PP from every visitor] (GEN)
     'Masha demanded some documents from every visitor'   (∃ > ∀), (∀ > ∃)

     b. Maša potrebovala   (s kakogo-to posetitelija)   [každyj document]
     Masha demanded   [PP from some visitor] (GEN) [every document](ACC)
     'Masha demanded every document from some visitor'   (∃ > ∀), *(∀ > ∃)

(21) a. Maša požertvovala [kakoj-to veščju]   (radi každoj podrugi)
     Masha sacrificed   [some thing] (INSTR)[for the sake of every girlfriend] (GEN)
     'Masha sacrificed some thing for the sake of every girlfriend'
     (∃ > ∀), (∀ > ∃)

     b. Maša požertvovala (radi kakoi-to podrugi)   [každoi veščju]
     Masha sacrificed   [for the sake of some girlfriend] (GEN) [every thing] (INSTR)
     'Masha sacrificed, for the sake of some gi   rlfriend, every thing'
     (∃ > ∀), *(∀ > ∃)

What unifies the above ditransitives, despite their morphosyntactic differences in internal argument realization, is the scope pattern they follow: while the (a) examples above allow both surface and inverse scope interpretations, the (b) examples uniformly allow surface scope reading only. Thus, despite the differences in how the two internal arguments of the

above ditransitive predicates are realized from the corresponding English cases, the above scope facts provide initial justification for unifying Russian ditransitives in (a) and (b) examples above with the English PP Datives and Double Object Constructions respectively[74].

3.3.5 Scope Freezing in Russian Reflexive Monotransitives

Finally, the last syntactic context related to ditransitive predicates that we will discuss is what I call "reflexive monotransitives". These are predicates that are built from true ditransitives (22a-b) by reflexivising the predicate; one of the predicate's arguments may then have to be expressed as an adjunct prepositional phrase as in (22c-d).

(22) a. Maša   zarazila   [kakoj-to bolezn'ju]   [každogo pacienta]
   Masha   infected   [some illness] (INSTR) [every patient] (ACC)
   'Masha infected with some illness every patient'
   (∃>∀), (∀>∃)

  b. Maša zarazila   [kakogo-to pacienta] [každoj bolezn'ju]
   Masha infected**REFL**   [some patient] (ACC)   [every illness] (INSTR)
   'Masha got infected with every illness by some patient'
   (∃>∀),*(∀>∃)

  c. Maša zarazilas'   [kakoj-to bolezn'ju]   [ot každogo pacienta]
   Masha infected (REFL)[some illness] (INSTR) [from every patient] (ACC)
   'Masha got infected with some illness by every patient'
   (∃>∀), (∀>∃)

  d. Maša   zarazilas'   [ot kakogo-to pacienta] [každoj bolezn'ju]
   Masha   infected (REFL)[from some patient] (ACC)   [every illness] (INSTR)
   'Masha got infected with every illness by some patient'
   (∃>∀),*(∀>∃)

The first thing to note about examples such as (22) is that the scope pattern that holds with the ditransitive predicate in (22a-b) is preserved with the reflexive predicate in (22c-d). What is important here is that the internal argument structure of the ditransitive and the reflexive predicate in question is different, with one of the ditransitive's internal arguments being realized as the reflexive predicate's adjunct phrase. The only thing that is held constant in the two examples is the linear order of quantification phrases, with scope being free when the order is INSTR >> ACC and surface scope frozen when the order is ACC >> INSTR. Given that such crossing of QPs is observed with all the other cases of scope freezing we have seen so far, it appears to be a clue as to what causes it in

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[74] See Pereltsveig (2006) for arguments in favor of equating Russian ditransitives with the English double object construction.

the first place. In the next section we will see that this idea is correct and that there are even more drastic cases of scope freezing in Russian where it is observed between QPs that are sometimes the internal and the external argument of the verb (e.i., object QP scrambling across the subject QP) or, most strikingly, are arguments of different predicates (as is the case with scope freezing that obtains with Long Distance scrambling of a QP across the structurally higher QP in the upper clause).

3.4 Scope Freezing in Russian Scrambling Constructions

Overall, we have witnessed a lot of similarities between Russian and English in what concerns covert movement of quantifiers as well as syntactic properties of this movement. However, Russian being a language with much more flexibility in terms of allowed word order permutations, known as Scrambling, the question naturally arises as to how Scrambling interacts with QR (if at all)[75]. Next in this chapter I will be concerned with this particular question and will present evidence suggesting that, quite surprisingly[76], *both* overt A-movement and overt A'-movement of QPs as instantiated by Local and Long-Distance Scrambling in Russian, despite their other well-known syntactic differences[77] behave identically with respect to scope. Specifically, both types of QP Scrambling seem to result in frozen surface scope. Sentences with overtly scrambled QPs therefore present another context (in addition to ditransitives, *spray-load* alternations, *spray-load* type verbs and reflexive monotransitives) where frozen surface scope is found in the language.

3.4.1 Scope Freezing with Long-Distance Scrambling

In this and the next sections we will see evidence suggesting that Long-Distance Scrambling (LDS) of Quantificational Phrases is strikingly parallel to the cases of Local Scrambling to be presented in section 3.4.2 in that neither LDS nor LS can reconstruct when the scrambled phrase is a QP. This is quite surprising in light of data such as (23), suggesting that reconstruction of non-quantificational phrases is required in such cases

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[75] To my knowledge, Ionin (2001) was the first paper to look at the interaction of word order and scope in Russian. Although I disagree with Ionin regarding the (un)availability of non-local QR in Russian, her main original insight that overtly moved QPs do not reconstruct for the purposes of scope is strongly supported with my own data presented in this section (originally discussed in Antonyuk-Yudina (2009)).

[76] The facts are indeed surprising when viewed from the perspective of scope freezing accounts provided for English that posit a certain structural relation between VP-internal QPs resulting in frozen scope (cf. Bruening (2001), Johnson (2001)). On such accounts neither Local nor Long-Distance Scrambling are expected to exhibit scope freezing as no comparable structural relation between the two QPs can be posited in scrambled sentences.

[77] See, for instance, Bailyn (2001, 2002a) for relevant discussion.

since the sentence that was ungrammatical on coreference due to a Principle C violation (23a) is not improved after the application of LDS (23b)[78]:

(23) a. *Ja xoču čtoby **ona_j** vstretila [**Mašinu_j** babušku]
      I want that she met [Masha (POSS) grandmother]
      *'I want her to meet Masha's grandmother'

b. *[**Mašinu_j** babušku]_k ja xoču čtoby **ona_j** vstretila **t_k**
      [Masha**POSS** grandmother] I want that she met
      *'Masha's grandmother, I want her to meet'

LDS of quantificational phrases, on the other hand, does not reconstruct, which is especially obvious if the matrix subject is also quantificational. Again, we see that scrambling the violating QP (containing the coreferenced R-expression) may or may not reconstruct for different speakers with the non-quantificational matrix subject such as *ja* ('I') in (24b); when the subject *is* quantificational (as in (24c)), all speakers agree that the sentence is perfectly grammatical on coreference between the pronoun and the R-expression:

(24) a. *Ja xoču čtoby **on_j** uvolil [každogo sovetnika **Buša_j**]
      I want that he fired [every adviser Bush] (ACC)
      'I want him_i to fire every adviser of Bush_i'

b. */??[Každogo sovetnika **Buša_j**]_i ja xoču čtoby **on_j** uvolil **t_i**
      [Every adviser Bush] (ACC) I want that he fired
      'Every adviser of Bush_i, I want him_i to fire'

---

[78] It has been suggested to me by a reviewer of a related paper that the way to resolve this tension is to adopt the Copy Theory of Movement (Chomsky 1993) in conjunction with a theory of which phrases can and cannot be late-merged, such as Takahashi and Hulsey (2009). On such an account, the R-expression would be merged before the application of LDS, thus being present at the lower position as well as the higher one, hence accounting for the Principle C effect in (23b). While I acknowledge the ability of this account to explain examples like (23), I believe it is not enough to account for the contrast in (24), where the sentences also contain an R-expression in the LD-Scrambled phrase as in (23), yet are grammatical. The crucial difference between the ungrammatical (23b) and the grammatical (24c) then appears to be that in the latter the R-expression is contained within a QP that undergoes LDS and moreover, the QP is 'trapped' in the higher position by the presence of another QP in the upper clause that is being crossed over; in the former, this is not the case. On the above-suggested account we might reasonably expect the R-expression to be present before LDS in sentences in (24) just as in (23), predicting, incorrectly, no difference between (24c) on the one hand and (23b) on the other.

c. [Každogo   sovetnika **Buša_j**]_i   kto-to xočet ctoby **on_j**   uvolil **t_i**
[Every   adviser Bush] (ACC) someone wants that he   fired
'Every adviser of Bush_i, somebody wants him_i to fire'
(every > someone > want), ***(someone > want > every)**

The scope facts in the following sentences similarly suggest that reconstruction of a Long Distance-scrambled QP does not take place. Thus, while the sentence in (25a) is ambiguous between the surface and the inverse scope reading due to the interaction of the two QPs in the subordinate clause, the sentence in (25b) only allows surface scope or the wide scope for the scrambled QP. Given the clause-bounded nature of QP scope, the lack of interaction between the two QPs is expected if there is no reconstruction of the scrambled QP since the two quantificational phrases are now in different clauses:

(25) a. Ja   xoču čtoby [dva   studenta]   priglasili   [každogo spikera]
I   want that   [two   students] (NOM)invited   [every speaker] (ACC)
'I want two students to invite every speaker'
(two > every), (every > two)

b. [Každogo spikera]   [kto-to]   xočet čtoby [dva studenta]   priglasili
[Every speaker] (ACC) [someone] (NOM) wants that [two students] (NOM) invited
'Every speaker, someone wants two students to invite'
(every > someone> two), ***(someone > every)**

Thus we see that long-distance Scrambling of a QP across another QP results in surface scope due to the scrambled QP not being able to reconstruct to a position below the QP it crossed on its way up. Both the scope facts and Binding Principle C facts strongly support this conclusion.

3.4.2 Scope Freezing with Local Scrambling

We have seen that Russian sentences with a quantificational subject and object are ambiguous between surface and inverse scope. Consider the examples in (26):

(26) a. Maša uverena, čto   kakoj-to čelovek   uslyšal každuju šutku
Masha sure   that [some   person] (NOM)   heard [every joke] (ACC)
'Masha is sure that some person heard every joke'
(some > every), (every > some)

b. Maša   uverena, čto [kakuju-to šutku]_i   každyj čelovek uslyšal   **t_i**
Masha   sure   that [some   joke] (ACC)   [every person] (NOM) heard
'Masha is sure that some joke, every person heard'

(some > every), *(**every > some**)

The sentence in (26a) means, on the surface scope interpretation, that Masha is sure that there is a person, whoever it may be, such that that person heard every joke in some contextually delimited set of jokes. On the inverse scope reading the sentence means that what Masha is sure of is that for every one of the jokes in the relevant set, each joke was heard by some person or other (allowing people to vary with the jokes). The sentence in (26b), where the object QP has been scrambled to the front of the clause, only seems to have the surface scope reading, on which some particular joke was heard by every person in the relevant set of people[79]. It thus appears that moving a QP overtly across another QP fixes the scope so that only the QP that is now structurally higher is capable of taking wide scope, that is, a 'frozen' surface scope obtains. The lack of reconstruction of the object QP is all the more surprising given that other phrases, for instance, names (or more generally, non-quantificational phrases), *must* reconstruct, as shown by the Principle C violation in (27) where the R-expression has been scrambled outside of the c-command domain of the coreferring pronoun:

(27) *[Mašino otraženie]$_j$ ona$_j$ uvidela t$_j$ v bol'šom   zerkale na stene
      [Masha's reflection] (ACC) she (NOM) saw   in big   mirror on wall
      *'Masha's$_j$ reflection, she$_j$ saw in the big mirror on the wall'

That the locally scrambled QP in (26b) does not reconstruct, in contrast to examples like (27) above, can be further shown with Binding Principle C:

(28) a. *Ona$_j$ i kakie-to ee$_j$ znakomye   posetili vsex   Mašinyx$_j$ podrug
         She and[some her acquaintances] (NOM.PL) visited [all Masha friends] (ACC.PL)
         *'She$_j$ and some acquaintances of hers$_j$ visited all of Masha's$_j$ girlfriends'
      b. ?Vsex Mašinyx$_j$ podrug   ona$_j$ i   kakie-to ee$_j$ znakomye
        [All Masha friends] (ACC.PL) she and[some her acquaintances] (NOM.PL)
         posetili vmeste
         visited together
       *'She$_j$ and some acquaintances of hers$_j$ together visited all of Masha's$_j$ girlfriends'

While the example in (28a) is ungrammatical on indicated coreference due to a Principle C violation, scrambling the object QP that contains the offending R-expression to the front of the clause bleeds condition C, which suggests the reconstruction does not take

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[79] The existential and the universal quantifiers have been switched in this sentence to ensure that the universal remains in a structurally lower position after scrambling has taken place, thus restricting available interpretations to those that arise through the syntactic mechanism of quantifier raising only (see, for instance, Pietroski and Hornstein (2002) for relevant discussion).

place. This lack of reconstruction with scrambled QPs is quite general in that it holds with various constituents, as long as the constituent in question is or contains a QP. In (29b) scrambling a PP that contains a quantifier phrase with an embedded R-expression similarly bleeds Condition C, in contrast to the ungrammatical pre-scrambling example (29a) (compare to the ungrammatical (29c), which differs from the (b) example in containing a non-quantificational scrambled phase[80]).

(29) a. *Ona$_j$ i kakie-to   ee$_j$ znakomye   pobyvali vmeste
      She and [some her acquaintances] (NOM.PL) attended together
       na vsex Mašinyx$_j$ filmax
       on [all Masha (POSS)movies]
       *'She$_j$ and some acquaintances of hers$_j$ attended together all of Masha's$_j$movies'
   b. ?Na vsex Mašinyx$_j$ filmax ona$_j$ i   kakie-to ee$_j$ znakomye
     On [all Masha (POSS) movies]   she and [some her acquaintances] (NOM.PL)
    pobyvali vmeste
    visited together
     *'All of Masha's$_j$ movies, she$_j$ and some acquaintances of hers$_j$ attended
     together'
   c. *Na Mašinyx$_j$ imeninax   ona$_j$ i   kakie-to ee$_j$ znakomye
    On [Masha (POSS) birthday] she and [some her acquaintances] (NOM.PL)
    veselilis' vmeste
    had fun together
     *'At Masha's$_j$ birthday, she$_j$ and her$_j$ acquaintances had fun together'

Expectedly, exactly the same behavior of QPs with respect to reconstruction is also observed in ditransitives. Consider the contrast in (30):

(30) a. *Druz'ja   rekomendovali   ee   [každomu buduščemu bossu Maši]
     Friends (NOM) recommended   her (ACC)   [every future boss Masha] (DAT)
      *'Friends recommended her to every future boss of Masha'
   b. ?[Každomu buduščemu bossu Maši] druz'ja   rekomendovali   ee
     [every future boss Masha] (DAT) friends$_{NOM}$ recommended   her (ACC)
     (po ee že pros'be)
     (on her own wish)

---

[80] I cannot use a minimally different example in (29c) since even if one uses a non-quantificational scrambled phrase [Na Mašinyx filmax], I believe the phrase is still interpreted quantificationally, most saliently, with a covert existential quantifier. Using [Na Mašinyx imeninax] instead controls for this possibility as due to the created sentential context the phrase is interpreted as referring to Masha's birthday this particular year, rather than referring to some/any birthday.

'Every future boss of Masha_i she_i was recommended to by friends (on her own request)'

c. [Každomu   buduščemu   bossu Maši]   kto-to   rekomendoval ee
[every future boss   Masha] (DAT) someone (NOM) recommended her (ACC)
(po ee že pros'be)
(on her own wish)
'Every future boss of Masha_i she_i was recommended to by someone (on her own request)'

Here the Accusative-marked pronoun c-commands the coreferenced R-expression contained within the Dative-marked object in surface syntax (30a), with the sentence being ungrammatical due to a Principle C violation. Scrambling the QP containing the R-expression to the front of the sentence improves the sentence for most speakers (30b); those who accept (30b) but find it somewhat degraded do agree that (30c), containing a quantificational subject *kto-to* instead of the non-quantificational *druz'ja* is perfectly grammatical on coreference.

We have thus seen evidence that overt displacement of a QP (unlike the displacement of a Referring expression) via Local (A) (as well as Long-Distance (A-Bar)) Scrambling may not reconstruct, which is supported by the Principle C test; the lack of reconstruction in such cases accounts straightforwardly for the Scope Freezing effect seen in examples such as (30c) above, where the object QP has scrambled overtly above the subject QP[81]. The contrast between (30b) and (30c) that exists for most speakers I have consulted seems particularly important, as it shows that it is the quantificational nature of the scrambled constituent and of the constituent that is being scrambled across that is responsible for the lack of reconstruction[82].

3.5 The Scope Freezing Generalization

3.5.1 The Apparent Generalization from Scrambling

Having presented the data on Russian scope freezing, we can begin to see what the emerging generalization appears to be. Specifically, if we start with scope freezing in

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[81] The scope freezing effect that obtains in such sentences also indicates that for whatever reason the QP that was structurally higher pre-scrambling is unable to undergo QR to reestablish ambiguity. I will address this particular fact and offer a possible explanation in my account of scope freezing later in this chapter.

[82] It is quite likely that the speakers who find sentences such as (28b) to be acceptable interpret the matrix subject as containing a covert existential quantifier (e.g., *kakie-to druz'ja (some friends)*, rather than *druz'ja*). This would explain why the otherwise predicted reconstruction does not take place for such speakers.

Scrambling contexts, given that almost all syntacticians treat scrambling as movement[83], the generalization seems clear: overt movement/scrambling of a QP across another QP freezes scope. The question then is, can this simple idea be extended to the *spray-load* type cases and other ditransitive alternations in 3.3.3 – 3.3.5?

3.5.2   Extending the Generalization: Ditransitives

It is quite natural to view the word order variants in 3.3.3-3.3.5 as produced by movement/scrambling. The alternative to this view would be that they represent alternative projection, i.e., alternative base orders, which would in turn entail that external merge/theta theory largely underdetermines VP structure in all these ditransitives. This seems to be a very strong commitment. Furthermore, assuming alternative projection would raise serious questions about how accusative case marking works for the orders in which an accusative argument comes second (OBL > ACC). How would case marking by little v work here, given the presence of an intervening argument? Assuming the ACC > OBL order is basic and OBL > ACC is derived by movement seems like the minimal view. Chapter 2 showed conclusively that Russian, like English, allows scope inversion (i.e., scope ambiguity) in its basic word orders. The simplest assumption then, consonant with the scrambling cases, is that the ambiguous examples in 3.3-3.5 represent the base order and that the unambiguous examples represent a derived order in which the lower phrase has been raised over the higher one to a c-commanding position. This brings the cases in 3.3.3 – 3.3.5 under the same generalization as those in 3.4.

Can this reasoning be extended to 3.3.1 - 3.3.2? Here the issue is more controversial since many have argued for alternative projection with the two variants of the dative construction and *spray-load* alternations, or else have argued the DAT > ACC order is basic for Russian. Regarding datives, Bailyn has argued forcefully that in Russian ACC > DAT is in fact the basic one and DAT > ACC order is derived[84]. If we accept Bailyn's

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[83] Though see Boscovic and Takahashi (1998) for an account that treats scrambling as base-generation (cf. Bailyn 2001).

[84] Some of the evidence for the structure [VP NP$_{ACC}$ [V' V XP$_{DAT/OBL}$]] (Bailyn 1995) comes from instrumental adjunct small clauses such as (i), where the reference of the small clause subject, PRO, is controlled by the subject of the main clause:

(i)   Vanya$_j$ obyčno rabotaet golodnym$_j$
      Vania (NOM)   usually works   hungry (INSTR)
      'Vania usually works hungry'

In sentences with both the subject and the direct object either NP can serve as the controller of PRO, as long as both NPs agree with the predicate adjective in Phi-features (iia). The indirect Dative object, however, cannot be the controller of PRO, as shown in (iib):

arguments, then scope freezing with Russian datives can be brought under the same generalization as that identified on the basis of data in 3.4 and 3.3.3-3.3.5. The DAT > ACC order will involve crossing the first over the second and hence we will correctly expect scope freezing in this case.

What about the *spray-load* examples in 3.3.2? These are the most controversial cases since they involve more than simple order permutation of the internal arguments. The two

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(ii) a. Boris$_j$ našel Sašu$_k$ [PRO$_{i/k}$ pjanym$_{i/k}$].
         Boris (NOM)   found Sasha (ACC)   drunk (INSTR.MASC)
         'Boris found Sasha drunk.' (Boris or Sasha = drunk)

   b. Boris$_j$ sovetoval   Saše$_k$ [PRO$_i$ pjanym$_{j/*k}$]
       Boris (NOM)   advised   Sasha (DAT) drunk (INSTR)
       'Boris advised Sasha drunk.' (only Boris = drunk)

The same situation holds with ditransitive verbs, with only the Accusative object, of the two internal arguments, being a possible controller for PRO, but not the Dative:

(iii) a. Boris$_j$ predstavil   Sašu$_k$ Kole$_m$ [PRO$_{i/k/*m}$ pjanym$_{i/k/*m}$]
          Boris (NOM)   introduced   Sasha (ACC)   Kolia (DAT)   drunk (INSTR)
          'Boris introduced Sasha to Kolia drunk'

   b. Boris$_j$ predstavil   Saše$_m$ Koliu$_k$ [PRO$_{i/k/*m}$ pjanym$_{i/k/*m}$]
       Boris (NOM)   introduced   Sasha (DAT)   Kolia (ACC)   drunk (INSTR)
       'Boris introduced Sasha to Kolia drunk'

As is shown in (iii), independent of the linear order of internal arguments in the ditransitive VP, only the direct object, marked with Accusative case, but not the indirect object, can be the controller of PRO in Instrumental small clauses. As shown in Bailyn (2009, 2012), this result follows from distinct attachment possibilities: if the small clause is attached above the VP level, the subject will be the closest c-commanding argument; if the adjunct clause is attached to VP, the Accusative object will be the closest c-commanding argument, thus gaining control of PRO's reference. On the structure of VP proposed in Bailyn (1995), the inability of the Dative object to control PRO follows from the fact that it either doesn't c-command PRO (as in iii.a) or, when the Dative object precedes the Accusative, isn't the closest c-commanding argument (iii.b). Crucially, alternative accounts of Russian ditransitives, such as, for instance, Richardson (2007), which analyzes Datives as generated in SpecVP, or Dyakonova (2005), which argues for Datives being generated above Accusatives in the Specifier of a distinct Applicative head (following Pylkkanen 2002) cannot explain the inability of Datives to control into Instrumental small clauses. Apart from the evidence discussed above, there are various other asymmetries, for instance, with Weak Crossover Violations (Bailyn 2009), oblique case assignment asymmetries that affect Accusatives (or Nominatives, for unaccusative verbs), but crucially not Datives, further suggesting that the structure suggested for in Bailyn (1995) is the correct underlying structure for a large group of Russian ditransitives (see Bailyn 2009, 2012, Madariaga 2008 for a detailed discussion).

variants show different case frames. Evidently in order to bring these cases under the generalization at hand, we would need to analyze the *with*/instrumental variant as involving crossing of the accusative over the *with*-phrase. Is this plausible? Larson (1990) argued that the *with*/instrumental variants of *spray-load* verbs in English involve inversion of arguments, parallel to his derivational analysis of double object constructions. More recently Larson (2014) argues for a generalized "Applicative Shift" operation, which fronts the Accusative in DOCs and *with*/instrumental variants[85]. Under these assumptions, the Russian datives and *spray-load* examples in 3.3.2 can also finally be brought under the generalization about scope freezing that unites 3.4 and 3.3.3-3.3.5.

Note that up to this point in the argument, I have only invoked the notion of "crossing one quantifier over another". So the question naturally arises: is the generalization one about linear order, or one about structure?[86] In the next section I will introduce the OVS cases mentioned previously, to show a further wrinkle about scope freezing: that it arises as a result of single movements that move one quantifier over another, **not** derivations that have this result. This will then allow us to state the final form of the Scope Freezing Generalization.

3.5.3 Refining the Generalization: Scope in Russian OVS Sentences

Based on the above scope data from Russian ditransitives, reflexive monotransitives and cases of QP Scrambling in Russian we can formulate the following Scope Freezing Generalization:

(31) **Scope Freezing Generalization (SFG):**
Scope freezing results when one QP raises over another to a c-commanding position.

SFG encodes the observation that in each case of scope freezing discussed in this chapter, the frozen variant appears to derive from the ambiguous one by movement that inverts QP c-command relations. As was noted above, the scrambling contexts in particular provide crucial evidence that freezing is associated with <u>derived</u> contexts.
After the discussion of scope freezing in Russian OSV sentences above (e.g., cases of Local QP Scrambling), an immediate question to ask, however, is this: what happens in

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[85] Present evidence from Larson (2014)
[86] Introduce binding data (or data of some other kind) to show that in all of the crossing cases considered so far, where QP1 > QP2 is the underived order and QP2 > QP1 is the derived order: (a) QP1 c-commands QP2 before movement, and (b) QP2 c-commands QP1 after movement. This will show that "crossing" inverts scope relations.

Russian OVS sentences? Upon reflection, a speaker of Russian will note that such sentences are in fact scopally ambiguous, thus providing an apparent counterexample to the Scope Freezing Generalization proposed above.

In fact, it turns out Russian OVS sentences like (32a), where an object QP appears to cross a subject QP, provide further insight into SFG. Note that despite being derived, the OVS sentence (32a) does remain ambiguous, like its underived SVO counterpart (32b) (See also Ionin and Luchkina (2015) for experimental evidence):

(32) a. [Kakuju-to stat'ju]   pročitala   [kazhdaja devuška]   (derived) OVS order
        [Some article] (ACC) read (PST.FEM) [every girl] (NOM)
        'Some article was read by every girl'
        (∃>∀), (∀>∃)

     b. [Kazhdaja devuška] pročitala   [kakuju-to stat'ju]
        [Every girl] (NOM)   read (PST.FEM) [some article] (ACC)   (standard) SVO order
        'Some article was read by every girl'
        (∃>∀), (∀>∃)

Erechko (2003) and Bailyn (2010) argue that the OVS order results from raising VP across S, with Erechko also arguing for further raising of O (33).

(33) Kakuju-to stat'ju [$_{VP}$ pročitala kakuju-to stat'ju] [kazhdaja devuška] [$_{VP}$ pročitala kakuju-to stat'ju]

RAISE O ↑_____⌐ ↑_____⌐ RAISE VP

The landing site for O in the above diagram has been a source of significant debate (cf. Slioussar 2006, Williams 2006; Erechko 2003; Bailyn 2010, 2012). Bailyn (2012), for instance, argues that the object remains inside the VP and that the remnant VP containing the object raises into canonical subject position in Spec, TP. Such claim is based on the following anaphor binding data ((34) in Bailyn's example (88)):

(34) a. *Direktora   volnujut   [svoi podčinennye].
        Director (ACC)   worries   [self's subordinates] (NOM)
        'The director is worried by his subordinates.'
     b. ??Direktora   uničtožili   [sluxi o sebe].
        Director (ACC)   destroyed   [rumors about self] (NOM)
        'The director was destroyed by rumors about himself.'

The unacceptability of anaphor binding in (34a) and its significantly degraded status in (34b) lead Bailyn to conclude that the object phrase in OVS sentences cannot be in Spec, TP, otherwise binding would be predicted to be grammatical, hence Bailyn (2010, 2012)

proposes that what raises into subject position is the remnant VP, with the object remaining inside the VP[87].

However, slight modifications of Bailyn's examples, which render them fully grammatical on anaphor binding interpretations, suggest that the examples in (34) are ungrammatical due to independent reasons, namely due to information structural considerations (e.g., contrastive focus)[88]. Thus, the acceptability of anaphor binding in (35) and (36), built from Bailyn's examples (34a) and (34b), where information structure is controlled for shows that O must c-command S from its derived position, whatever the latter may be:

(35) a. Direktora$_k$ otvlekajut [svoi$_k$ podčinennye] kuda čašče, čem čužije
  Director (ACC) distract [**self's** subordinates] (NOM) way more often than others'
  'The director is distracted by his own subordinates way more often than by others subordinates.'

 b. Direktora$_k$ obyčno otvlekajut tol'ko [svoi$_k$ podčinennye]
  Director (ACC) usually distract only [**self's** subordinates] (NOM)
  'The director is usually distracted only by his own subordinates'

 c. Direktora$_k$ obyčno otvlekajut tol'ko [svoi$_k$ podčinennye], a čužije net
  Director (ACC) usually distract only [**self's** subordinates] (NOM) and others not
  'The director is usually only distracted by his own subordinates, but not by others''

(36) a. Direktora$_k$ otvlekajut (ot raboty) tol'ko [sluxi o sebe$_k$],
  Director (ACC) distract (from work) only [rumors about **self**] (NOM),
  (sluxi o drugix ego ne volnujut)
  rumors about others him not worry
  'The director is only distracted (from work) by rumors about himself, rumors about others do not bother him'

 b. Direktora$_k$ nasmešili tol'ko nekotoryje [sluxi o sebe$_k$],

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[87] See Erechko (2003) for an analysis of OVS sentences which argues that the subject raises into a Focus position above the vP, the remnant VP raises across the subject into the Specifier of a Topic phrase (old information topic) and the object then further raises into the Spec, of RefP "to fill the postion of subject of predictaion" (p.11). It is not clear from the discussion whether Erechko equates Spec of RefP with Spec, TP position or whether she assumes RefP to be located higher in the tree.

[88] Note that the information-structural effects in (35)-(36) suggest that Erechko is correct in arguing that the subject in OVS sentences is focused. However, as pointed out by Richard Larson (p.c.), there is no need to assume that the subject moves at all in such cases.

Director (ACC) amused   only   certain   [rumors about **self**] (NOM),
ostal'nyje   ego   razozlili
the rest   him   angered
'The director was only amused by some/certain rumors about himself, the others made him angry'

The same conclusion can be reached on the basis of reciprocal binding in (37):

(37) [Mašinyx   uxažerov$_k$]   postojanno kritikujut [sestry drug druga$_k$]
     [Masha**POSSESS** suitors] (ACC) always   criticize   [sisters each other] (NOM)
     'Masha's suitors are always criticized by each other's sisters'

The novel ECP data in (38)-(39) presents additional strong evidence of object filling the canonical subject position in Spec, TP. The paradigm exhibits a well-known subject-object asymmetry with extraction. The contrast in (38a-b) shows that extracting the subject from canonical subject position in (38b), with a filled subjunctive complementizer is banned, while extracting the subject from the postverbal position in (38a) is grammatical, pointing to the ECP violation. The contrast is reversed in (39), showing that while extracting the object from its postverbal position in (39b) is grammatical, as expected, extracting the object from an embedded OVS structure (39a) is disallowed. *That*-trace effects involve traces in TP Spec position; hence ill-formedness in (39a) argues that the object trace is in Spec, TP.

(38) a.   [Kakaja-to devuška] [každyj student]$_j$ hočet, čtob   [ego$_j$ stat'ju] pročitala **t$_S$**

      [Some girl] (NOM) [every student] (NOM) wants that (SUBJ) [his article] (ACC)
read
      'For some girl, every student wants her to read his article'
      LD Scrambling from embedded OVS: (∃>∀>want)

   b. *[Kakaja-to devuška]   [každyj student]$_j$ hočet, čtoby   **t$_S$**
     [Some girl] (NOM)   [every student] (NOM) wants that (SUBJ)
     pročitala   [ego$_j$ stat'ju]
     read**PST**   [his article] (ACC)

(39) a. *[Kakuju-to stat'ju]   [každyj student]$_j$ hočet, čtoby   **t$_O$**
     [Some article] (ACC) [every student] (NOM) wants that (SUBJ)
     pročitala   [ego$_j$ devuška]
     read (PST)   [his girlfriend] (NOM)

b. [Kakuju-to stat'ju]   [každyj student]ⱼ hočet, čtob
    [Some article] (ACC) [every student] (NOM) wants that (SUBJ)
    [egoⱼ devuška]   pročitala **t**_O_
    [his girlfriend] (NOM)   read (PST)
    'For some article, every student wants his girlfriend to read'
    LD Scrambling from embedded SVO: (∃>∀>want)

Finally, note that the grammatical instances of QP scrambling in (38)-(39) above do not reconstruct: although the scope judgments in these rather complex examples are subtle, I believe that they support the SFG in (31).

Observe now that if (31) is correct, although the <u>sequence</u> of movements RAISE VP – RAISE O ends up inverting the scopes of S and O, no <u>single</u> movement in (33) does so. Raising VP over S doesn't invert the scopes of O and S since O (embedded within VP) does not c-command S at the conclusion. And raising of O from VP doesn't invert the scopes of O and S, since S does not c-command O at the outset of O-raising from inside the VP. Scope freezing thus seems crucially to involve <u>single</u> movements that invert c-command relations of QPs. We may thus revise SFG in the following way:

(40) **Scope Freezing Generalization (SFG), revised:**
Scope freezing results when one QP raises over another to a c-commanding position as a result of a single instance of movement.

Thus, the OVS sentences that on the surface appear to provide a counterexample to SFG upon reflection appear to strengthen it as well as provide a further insight into the nature of the movement that results in scope freezing. In the rest of this chapter I will attempt to provide an account of the phenomenon of scope freezing that crucially rests on the above Scope Freezing Generalization[89], [90].

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[89] Note that under certain assumptions about DOCs and PP Datives (namely, the existence of a derivational relation between the two) the SF Generalization can be taken to accurately describe the scope freezing facts in English as well.

[90] Note that if the above explanation of why Russian OVS sentences remain scopally ambiguous despite there being an instance of overt QP "crossing" is correct, it raises the possibility that the same mechanism is responsible for the rather unexpected ambiguity of English and Russian passives (i. and ii):

(i).   Some book was read by every student.
        (∃>∀), (∀>∃)
(ii).   Kakaja-to kniga   byla pročitana   každym studentom
        Some book (NOM)   was written   every student (INSTR)
        'Some book was written by every student'
        (∃>∀), (∀>∃)

3.6 On the Nature of Scope Freezing

If the Scope Freezing Generalization (SFG) argued for in the preceding sections is correct, the next logical question immediately becomes:

(41)   What mechanisms of grammar are responsible for SFG?

A number of accounts of constructional scope freezing have been proposed in the literature, based on different analytical ideas about its source. Under these alternative proposals, constructional scope freezing is[91]:

(42)   (a)   An Economy of Scope Phenomenon (Antonyuk-Yudina 2009)
         (b)   An Economy of Derivation Phenomenon (Bobaljik & Wurmbrand 2011, deriving from Beck 1986, Ionin 2001)
         (c)   A Superiority Phenomenon (Bruening 2001, 2010)

The status of passives with respect to scope has been contested since Chomsky (1957) proposed that the sentence "Two languages are known by everyone in the room" is not synonymous in meaning to "Everyone in the room knows two languages" (Cf. Katz and Postal 1964). At present, the sentences such as (i) for English are generally agreed to remain ambiguous, just as their active counterparts are. The Russian counterparts such as (ii) exibit the same scopal properties, being scopally ambiguous. In the context of our discussion, it is natural to wonder, why are such sentences ambiguous given that the object QP seems to "cross" over the subject QP? Here I would like to propose, tentatively for now, that passives are derived in a somewhat similar fashion to OVS orders, involving a similar non-scope freezing derivation, as opposed to a "single movement" derivation as was determined to be necessary for scope freezing to obtain. In fact, an analysis along similar lines for English passives has been proposed in Collins (2005). Collins argues for a theory of passives in which the external argument is generated in its canonical Spec, vP position and the object is merged directly into Spec, TP position. The verb then XP-moves across the subject, which derives the correct word order. Note that adopting Collins (2005) as our analysis of passives immediately explains why there is no scope freezing in passive sentences: with the object being merged into Spec, TP position it never gets to "cross" the subject in the sense that is relevant for scope freezing; only the verbal complex does, and the verb never seems to "count" for SFG (for a detailed discussion of this point, see section 3.6.3.3 on intervention effects). The other possibility, suggested by Russian OVS sentences, is that the object is actually generated in its canonical complement of V position, and that a movement akin to remnant VP movement implicated in Russian OVS sentences takes place in passives as well. If the latter is indeed the case, we similarly get a straightforward account of scopal ambiguity of passives. I hope to explore the derivation of passives as suggested by insights from Collins (2005), SFG and the account of Russian OVS sentences proposed here in my future work.

[91] I will ignore analyses proposing that freezing is an island phenomenon. e.g., Aoun and Li 1993, who claim that in a DOC what follows V is a small clause and that the outer quantifier is scope frozen because it is confined to the small clause. As was discussed earlier, scope freezing is a constraint on the **relative** scope of the two QPs not a constraint on the absolute scope of QP2. Analyses based on the latter assumption can therefore be eliminated.

(d)   A Linearization Phenomenon (Larson and Harada 2011)

I will postpone consideration of (b)-(d) until the Russian ditransitives have been discussed in more detail in Chapter 4 since these constructions bear directly on these proposals. However, the Scope Economy idea arises rather naturally in the present context and the difficulties it encounters lead directly into the proposal that will be defended later in the chapter.

Fox (2000) proposes that syntactic derivations involving scope are subject to economy constraints. To evaluate the proposed in Antonyuk-Yudina (2009) it is important then to show that Scope Economy Principle is indeed oparetive in Russian, just as it is in English. The next section then briefly discusses Russian facts that are fully parallel to those discussed in Fox (2000) for English.

3.6.1 Fox's Scope Economy Principle

As briefly discussed in Chapter 1, an important advance in our understanding of constraints that regulate the application of QR is Fox's (1995, 2000) Scope Economy Principle. Let us review the idea behind it and the supporting evidence in more detail. The idea stems from the general consensus in the field that syntactic operations should be economical and motivated. In the area of quantifier scope this sentiment led Fox to a natural conclusion that the syntactic operation that is responsible for the scopal ambiguity in (43) must somehow be restricted in (44), given that no scope/truth conditional difference exists in the latter.

(43)   a. A boy loved every girl.
         b. Many boys love every girl.

(44)   a. John loves every girl.
         b. Every boy loves every girl.

Thus, in order to restrict the application of Scope Shifting Operations (both QR and QL) in cases such as (44), Fox proposes the following Economy Principle:

(45) *Fox's Scope Economy Principle*
     Scope Shifting Operations (SSO) cannot be semantically vacuous.

Since short QR for interpretability reasons still arguably takes place even in cases such as (44), Fox also proposes that Scope Economy works in conjunction with the Shortest Move principle. This ensures that an object QP does not scope over the subject QP in scopally uninformative sentences, yet undergoes short interpretability-driven QR:

(46) *Shortest Move*

QR must move a QP to the closest position in which it is interpretable. In other words, a QP must always move to the closest clause-denoting element that dominates it.

Thus, according to Fox, these principles ensure that obligatory QR (QR that is necessary for interpretability reasons in the sense of Heim and Kratzer (1998)) satisfies Shortest Move and that optional QR moves a QP to the closest position in which it crosses the relevant scope-bearing element[92].

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[92] Probably the most important question regarding Scope Economy as a grammatical principle is the question of its implementation. Fox himself has the following to say about it:

"Assume that Scope Economy is operative in grammar (i.e., that it plays a role in accounting for the ESG [Ellipsis Scope Generalization]). There are still open questions regarding the way it is implemented, some of which may have empirical consequences. One such question concerns the "locality" of the computations that are involved in the implementation. For example, does Scope Economy consult the outside systems to figure out the exact semantic interpretation of sentences that involve multiple quantification? I will make what I believe is a more natural assumption. I will assume that Scope Economy applies a local algorithm in which the only relevant aspect of semantic interpretation is the semantic commutativity of two quantifiers whose relative scope is being reversed. The basic idea is that an SSO (QR or QL) (that is not forced for independent reasons) can apply only if it reverses the scope of two quantifiers that are semantically noncommutative. If this implementation is correct, there should be some empirical consequences. Specifically, under this implementation it is no longer the case that Scope Economy allows an SSO to apply whenever it has semantic effects. Rather, *Scope Economy allows an SSO to apply only when it has semantic effects of a very local type.* Suppose that QR or QL moves an XP in a way that does not affect the relative scope of two noncommutative quantifiers but nevertheless has semantic consequences. Suppose, for example, that it allows an XP to bind a variable in a constituent that is not present at the point at which the SSO applies or that it is a necessary step for a later application of an SSO. Scope Economy predicts that the movement is impossible."

Thus, Fox's Scope Economy principle ensures that non-obligatory QR applies in a very local fashion and does not have a look-ahead property; the operation cannot apply, for instance, so that its output serves as an input to an operation that will save an otherwise illicit derivation.

Further questions concerning the implementation of the Scope Economy principle into grammar concern the issue of modularity. Specifically, Fox raises the question of whether syntax can "see" what we might call interpretive properties of linguistic expressions. He rejects this possibility and argues instead that "there is a very narrow class of formal logical properties that certain words have and that these properties alone are accessible to syntax" and these properties of logical syntax are what determines whether a SSO can apply. Thus, Fox suggests that the grammar incorporates "a deductive system with various formal rules of inference that can

We have already seen how assuming Scope Economy allows us to account for the scope distribution facts in ellipsis contexts. To demonstrate the workings of the Scope Economy with another example from Fox (2000), consider the following paradigm:

(47)   a. John and Bill₁ wonder [which picture of each other₁] Mary bought t.
        b. ?? John and Bill₁ wonder who bought [which picture of each other₁]

(48)   a. The two rivals hoped that someone would hurt (every one of) each other's operations. *(some > every), (every > some)
        b. ?? The two rivals hoped that Bill would hurt (every one of) each other's operations.

Fox argues at length that unlike Condition C of Binding Theory, Condition A can be bled by QR. (47a) shows that wh-movement, which is similar to QR in many respects, can affect condition A. The contrast between the two examples in (48) is explained if Scope Economy prohibits the application of QR in (48b), resulting in the violation of Condition A. In (48a), by contrast, QR is allowed to raise the anaphor across the quantificational subject, thus satisfying Condition A. The application of QR in (48a) creates a structure that is identical in all relevant respects to the output of wh-movement in (47a).

The above contrast appears to hold in Russian as well, further demonstrating that Scope Economy Principle holds for Russian just as it does for English:

(49)   a. Oba konkurenta nadejalis' čto kto-to navredit každoj iz finansovyx operacij drug druga
           Both rivals hoped that someone hurt_FUT [every from[financial operations each other]_GEN
           *(some > every), (every > some)

        b.??Oba konkurenta nadejalis' čto Ivan navredit každoj iz finansovyx operacij drug druga.
           Both rivals hoped that Ivan hurt_FUT [every from [financial operations each other]_GEN]

In addition to the ellipsis contexts, which provide strong support for Fox's Scope Economy principle, another context that shows Scope Economy at work is that of scope in sentences with pseudogapping. As discussed by Fox, similarly to elliptical constructions, pseudogapping also obeys Fox's Ellipsis Scope Generalization, which follows naturally from his Scope Economy Principle and Parallelism.

"prove" logical equivalence in various cases. When logical equivalence is proven, application of an SSO is blocked".

(50) ***The Ellipsis Scope Generalization***

> In ellipsis contexts the elided sentence will disambiguate the antecedent sentence iff the elided sentence is scopally uninformative (and vice versa).

Thus, a sentence such as (51a) obeys Parallelism with respect to scope in both conjuncts: since the antecedent sentence is ambiguous, the second conjunct with pseudogapping must be ambiguous as well. Crucially, both (51b) and (51c) disallow scope ambiguity in both conjuncts: the subject must take wide scope over the object within the antecedent in both of these sentences since they are scopally uninformative and Parallelism requires that the second conjunct be disambiguated in favor of subject wide scope as well (even though in both of these sentences the conjuncts with pseudogapping contain QPs that are scopally non-commutative)[93].

(51) a. A boy was introduced to every professor and a girl was to every parent.
(some > every), (every > some)
b. A boy was introduced to Jane and a girl was to every parent.
(some > every), *(every > some)
c. A boy was introduced to a parent and a girl was to every professor.
(some > every), *(every > some)

Unsurprisingly (given all the other similarities with respect to scope) the parallel pseudogapping sentences in Russian demonstrate parallel scope behavior as well. Consider the sentences in (52):

(52) a. [Kakoj-to mal'čik] byl predstavlen   [každomu professoru], a [kakaja-to
     [Some boy] (NOM) was introduced   [every professor] (DAT) and some
    devočka] – [každomu roditelju]
    girl (NOM) every parent (DAT)
    'A boy was introduced to every professor and a girl was to every parent'
    (some > every), (every > some)
b. [Kakoj-to mal'čik] byl predstavlen   Maše,   a [kakaja-to devočka -
    [Some boy] (NOM) was introduced   Masha (DAT)   and [some girl] (NOM)
    [každomu roditelju]
    [every parent] (DAT)
    (some > every), *(every > some)

    c. [Kakoj-to mal'čik] byl predstavlen [kakomu-to roditelju],
    [Some boy] (NOM)   was introduced [a parent] (DAT)

---

[93] Fox notes that examples like (51) are important in demonstrating that the scope properties of these sentences as well as those in ellipsis contexts discussed earlier cannot be attributed to the subject of the sentences since in all three of the sentences (as well as in those with ellipsis) the subject is kept the same yet scopal properties of the sentences are different.

a	[kakaja-to devočka]**NOM**	[každomu professoru]
and	[some girl] (NOM)	[every professor] (DAT)

'A boy was introduced to a parent and a girl was to every professor'.
(some > every), *(every > some)

Here, just as in the English counterpart examples, (52a) is ambiguous because the antecedent clause is ambiguous, thus parallelism ensures that the pseudogapped clause is ambiguous as well (given that the two QPs in question are scopally non-commutative). In (52b) the antecedent clause is not ambiguous, since only one QP is present (the object being a referring expression Masha), so parallelism dictates that the pseudogapped clause allow only the surface scope reading on a par with the antecedent, even though the QP pair *kakaja-to devočka - každomu roditelju* (some girl – every parent) is not scopally commutative, so the sentence taken by itself would be ambiguous. Finally, in (52c) the antecedent clause contains the same existential QP in subject and object position, so by Scope Economy, QR of the object above the subject is prohibited. Parallelism, on the other hand, ensures that non-obligatory QR of the object does not apply in the pseudogapped clause as well, even though its application would have yielded scopal ambiguity. Thus, the pseudogapping examples from English and Russian convincingly demonstrate that Scope Economy Principle must be at work in both languages.

The parallelism between the two languages is further confirmed by the following Coordinate Structure paradigm discussed by Fox, which is similarly explained with the help of Scope Economy:

(53)　　a. *Billy [$_{x1}$ wants to date [every girl in this class]$_1$ and [$_{x2}$ has already asked [her]$_1$ out].

　　　　b. A boy [$_{x1}$ wants to date [every girl in this class]$_1$] and [$_{x2}$ has already asked [her]$_1$ out]. *(a > every), (every > a)

As Fox notes, since Ruys (1993) we know that the prohibition on QR out of coordination is due to the ban on vacuous quantification. Fox thus hypothesizes, that when the ban on vacuous quantification is not violated in a coordinated structure, QR out of one of the conjuncts should be allowed as long as this instance of QR in motivated (i.e., not prohibited by Scope Economy). This observation is incorporated into the following generalization:

(54) *The Coordination QR Generalization:*

"In a structure such as (a), an optional instance of QR can move QP outside of the coordination only if there is some scope-bearing element β c-commanding the coordination such that (i) β and QP are scopally noncommutative and (ii) QR moves QP over β, as in (b).

a. [$_{YP}$ …[α_1 …QP…] and [α_2 …x …]]
b. QPx [$_{YP}$ β …[α_1 …x…] and [α_2 …x …]]"

Thus, the sentence in (53a) is taken to be ungrammatical since, the subject being nonquantificational, the QP cannot QR above it and the variable thus is left unbound. In (53b), on the other hand, the QR from the first conjunct is allowed by Scope Economy to take place since the subject is itself a QP so the movement would not be vacuous; as a result the moved QP is able to bind the variable in the second conjunct and the sentence is therefore well-formed. As predicted, the only interpretation available for the sentence is the one on which the QP in the first conjunct takes scope over the subject QP. The following sentences from Russian are exactly parallel to their English counterparts.

(55) a. *Vanja [α_1 xočet vstrečat'sja [s každoj devočkoj v etom klasse]$_1$]
  Vania wants to.date with every girl in this class
  i [α_2 uže priglasil [jejo]$_1$ na svidanije].
  and already asked her on date
  *'Vania wants to date every girl in this class and has already asked her out.'

b. Kakoj-to mal'čik [α_1 xočet vstrečat'sja [s každoj devočkoj v etom klasse]$_1$]
  Some boy wants to.date with every girl in this class
  i [α_2 uže priglasil [jejo]$_1$ na svidanije].
  and already asked her on date
  'Some boy wants to date every girl in this class and has already asked her out.'
  (every > some), *(some > every)

As can be seen from this example, the construction is exactly parallel to its English counterpart, and the ungrammaticality of (55a) is explained by Fox's *Coordination QR Generalization* (which assumes Scope Economy) just the way it is in English: for the variable in the second conjunct to be bound, the QP in the first conjunct has to be able to move to a c-commanding position. This is impossible since the movement is illicit on Scope Economy due to the absence of a non-commutative quantificational element that the QP could cross, resulting in a new interpretation; therefore, QR is prohibited, the variable is left unbound and the whole structure is ruled out. Thus, we see that once again that Russian exhibits complete parallelism with English in terms of how interaction of QPs is regulated by Fox's Scope Economy.

3.6.2 Scope Freezing as Scope Economy (Antonyuk-Yudina 2009)

Antonyuk-Yudina (2009) proposes that SFG is fundamentally a result of scope economy. To illustrate the basic idea, consider again our ditransitive example, repeated below as (56a). We know that the ACC > DAT order of internal arguments is ambiguous in scope.

Under SFG we are also assuming ACC > DAT represents the basic/underived order. Inverse scope is obtained by QRing the dative over the accusative, adjoining it, for example to, VP (56b). This disambiguates the structure.

(56) a. Učitel'   [$_{VP}$ predložil   [kakuju-to knigu] [kazdomu studentu]]
       Teacher (NOM) offered   some book (ACC)   every student (DAT)
       'The teacher offered some book to every student'   ($\exists > \forall$) ($\forall > \exists$)

   b.   Učitel' [$_{VP}$ [každomu studentu] [$_{VP}$ predložil [kakuju-to knigu] [**každomu studentu**]]
        ($\forall > \exists$) $(\exists > \forall)$

Now consider (56b) repeated below as (57a). Again assuming the ACC-DAT order as basic, (Ya) must derive from (57b) by scrambling the dative *kakomu-to studentu* 'some student' over the accusative *každuju knigu* 'every book' (Yc). Assuming that scrambling is the equivalent of QR, the idea is that (57c) will again disambiguate the base order to the inverse scope reading ($\exists > \forall$). Note now that any attempt to subsequently QR the accusative back over the dative (57d) will end up restoring a reading ($\forall > \exists$) that was previously eliminated by raising, and eliminating the reading ($\exists > \forall$) that was previously fixed by raising. The move in (57d) is thus prohibited under Scope Economy.

(57) a. Učitel'   [$_{VP}$ predložil [kakomu-to studentu] [každuju knigu]].
         Teacher (NOM)   offered   some student (DAT)   every book (ACC)
         'The teacher presented some student with every book'

   b. Učitel'   [$_{VP}$ predložil [každuju knigu]   [kakomu-to studentu]].
       Teacher (NOM)   offered   every book (ACC) some student (DAT)
       ($\forall > \exists$)($\exists > \forall$)

   c. Učitel' [$_{VP}$ predložil [kakomu-to studentu] [každuju knigu] [**kakomu-to studentu**]].   ($\exists > \forall$)$(\forall > \exists)$

   d. Učitel' [$_{VP}$ [každuju knigu]
[$_{VP}$ predložil [kakomu-to studentu] [**každuju knigu**] [**kakomu-to studentu**]].
($\forall > \exists$)$(\exists > \forall)$

Under Scope Economy we thus predict that orders derived by QR, as in (57b), or by scrambling, as in (57c), will freeze the order of quantifiers for further scrambling/QR.

This proposal is attractive in at least two respects. First, as indicated above there are reasons to believe that Scope Economy is operative in Russian independently of any considerations of scope freezing. It seems attractive on general grounds to try to bring scope freezing under the same principle. Second, it seems intuitively natural to think of

the base order of QPs as ambigiguous and to conceive of scrambling one QP over another as equivalent to QRing it. Indeed Johnson (2000) explicitly suggests that QR and Scrambling represent one and the same operation. Nonetheless an account of scope freezing through Scope Economy faces serious challenges.

First of all, Scope Economy does not appear to be adequate to the full range of scope freezing data. Recall again (9a), repeated below as (58a). We saw that this sentence has the three readings represented in (58b-d), where in each case the relative ordering ∃ > ∀ is preserved. The readings in (58e-g) are unavailable.

(58) a. I promised to rent someone every apartment in the building.

b.	promise > ∃ > ∀	✓		e.	promise > ∀ > ∃	✗
c.	∃ > promise > ∀	✓		f.	∀ > promise > ∃	✗
d.	∃ > ∀ > promise	✓		g.	∀ > ∃ > promise	✗

Scope Economy successfully excludes reading (58e) for the same reason it excludes the '∀ > ∃' reading in the unembedded sentence *I rented someone every apartment in the building*. Assuming that the embedded existential indirect object has crossed over the universal direct object in (58a), crossing the latter back over the former within the scope of *promise* will resulting in restoring an already eliminated reading, contra Scope Economy. Interestingly, however, reasoning does not extend to (58f,g). Starting from (58b) and crossing the universal direct object over <u>both</u> the existential indirect object <u>and</u> the intensional verb results in truth conditions (58f) distinct from the original V-DO-IO form. Likewise raising the existential indirect object over the intensional verb (58c) followed by raising the universal direct object over both, yields truth conditions (58g) distinct from the original V-DO-IO form. Hence although Scope Economy can capture freezing in the simple unembedded cases, it fails when these are embedded under an intentional verb.

Second, Scope Economy and the Scope Freezing Generalization are much less naturally related than it appears on the surface. Under the informal account of frozen scope offered for (57a) above, we compared scrambling of DAT over ACC to QR-ing DAT over ACC, establishing the unambiguous interpretation '∃ > ∀' for (57a). Notice for this to be true, we would need to associate the relevant '∃ > ∀' interpretation with a tree like that in (59) below.

(59)
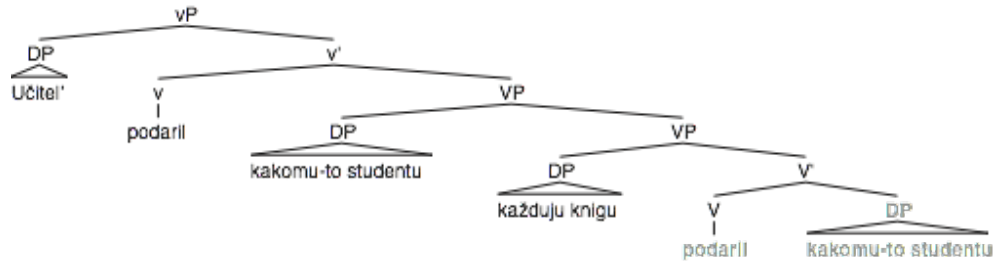
However this association cannot be made as things stand. In (59) *každuju knigu* 'every book' has not yet undergone QR. In CH01 we adopted the assumption that all quantifiers must bind a variable at LF. Given this, unmoved *každuju knigu* is simply not an LF-interpretable object since it binds no variable. (59) is thus not associable with a scope interpretation and won't be so until QR has applied to the accusative. The same point, furthermore, applies to (56b). Despite what we suggested earlier, simply QR-ing one QP over another is <u>not</u> sufficient to establish their inverse scopal relations. Scope relations are established only after <u>both</u> QPs have been raised. These points become clearer in considering how the two readings for (56a) are syntactically established. On the view we have been assuming, the '∃ > ∀' reading derives by first QRing the universal (60a) ① and then raising the existential over it (60a) ②. The '∀ > ∃' reading derives by first QRing the existential (60b) ① and then raising the universal over it (60b) ②.

(Q) a.
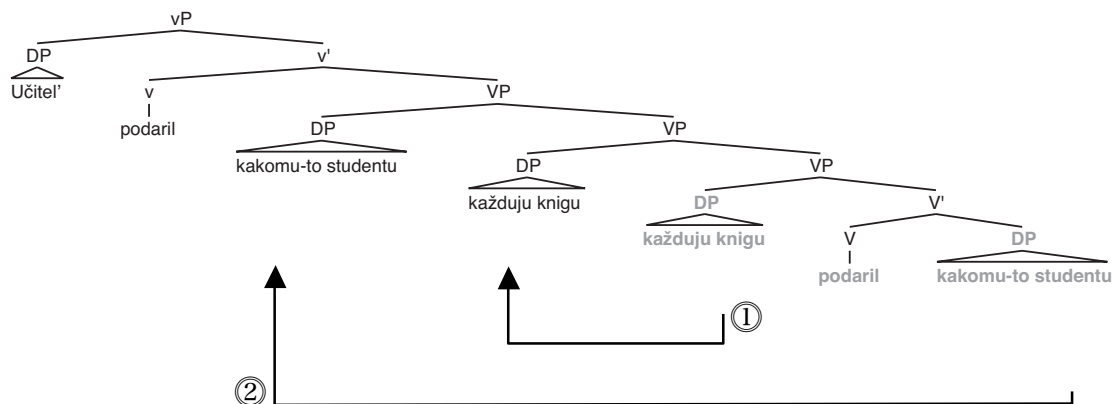
b.
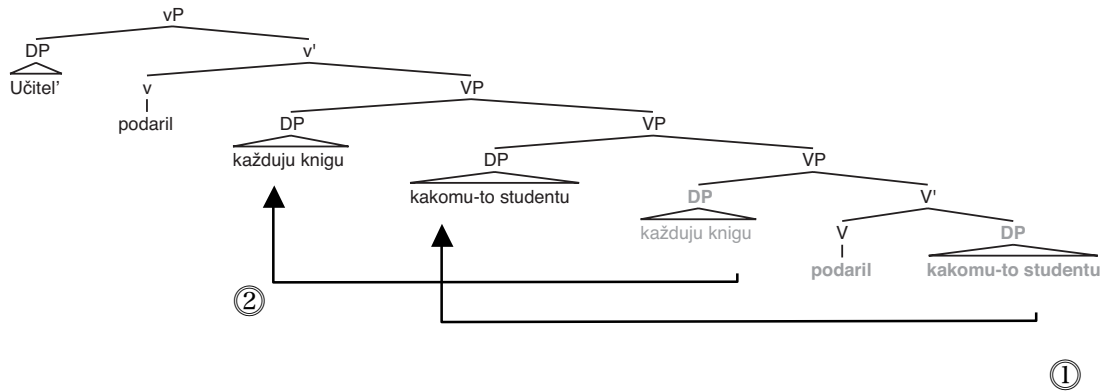
Notice in (60b) that the initial movement ①, raising *kakomu-to studentu* 'some student' over in situ *každuju knigu* 'every book' is exactly counterpart to the raising in (59) and that it precisely does <u>not</u> establish the relative scopes of the two QPs. Their relative scopes are established only after *každuju knigu* itself has raised ②. And in fact the latter movement inverts their scopes.

We see then an important difference between movements relevant for scope freezing and those relevant for scope determination. Scope determination occurs when QPs are raised over other <u>raised</u> QPs. By contrast, scope freezing occurs through the much broader class of movements that simply raise one QP over another. This divergence suggests that the basic mechanism responsible for scope freezing must be independent of that which determines scope and hence that an account of scope freezing based on Scope Economy is misplaced. We now turn to a very different view.

3.6.3 Russian Scope Freezing: A New Proposal

Despite specific differences, all previous accounts of scope freezing I am familiar with (Bruening (2001), Antonyuk-Yudina (2009), Larson and Harada (2011), Bobaljik and Wurmbrand (2012)), share the feature of taking scope freezing to be induced by something <u>external</u> to the QPs involved. Thus Bruening (2001) takes freezing to obtain by virtue of a relation existing between a higher probe (π) and a QP goal (61a); Larson and Harada (2011) takes freezing to result from the fixing of QP order that occurs in cyclic linearization domains (Λ) (61b). Antonyuk-Yudina (2009) and Bobaljik and Wurmbrand (2012) propose that the possibility of QRing one QP over another be calculated with respect to alternative derivations (61c) – either ones that would achieve the same vs. different truth conditional effects or ones that would involve overt raising. To the best of my knowledge no one has proposed that scope freezing holds in virtue of a relation, call it Relation $\mathfrak{R}$, obtaining strictly between the QPs themselves (61d):

(61) a. [π … QP1 QP2]   Bruening (2001)

         ↳

     b. [∧ … QP1 QP2]   Larson and Harada (2011)

     c. … QP1 … QP2 …   Bobaljik and Wurmbrand (2012)

             ↵

     d. … QP1 ←ℜ→ QP2 …

Nonetheless examples where the relative scope of quantifiers is constrained by relations between them are well-known in the literature.

3.6.3.1   Relative Scope and Variable Binding

Consider the pair of examples in (62) (62b due to Higginbotham 1980).

(62) a. Some musician played every piece.
      (∃>∀), (∀>∃)
      b. [Some musician]$_i$ played every piece that you wanted him$_j$ to play.
      (∃>∀), *(∀>∃)

(62a) is scopally ambiguous; either quantifier can be read with widest scope. However, on the reading where the subject *some musician* binds the pronoun *him* contained inside the object, (62b) is unambiguous. The existential must have scope over the universal. The relative positions of the two QPs are the same in both sentences and the ambiguity of (62a) shows that *every piece* is capable of taking scope over the subject. Yet in (62b) it does not. Lack of ambiguity here is widely ascribed to the binding relation established between the subject QP and the pronoun, embedded in the object QP. Giving the object QP scope over the subject QP, would result in the variable being unbound at LF, with loss of the relevant reading (63).

(63) [every piece that you wanted **him**$_j$ to play]$_j$ [Some musician]$_i$ x$_i$ played x$_j$.

The presence of a binding relation thus effectively yields a frozen surface scope interpretation.

     The same point is illustrated in a somewhat richer context with (64), which involves an intensional verb *want*. Again the object's ability to take scope is dependent on existing binding relations.

(64) a. Everyone wants [John to buy something]
     ($\forall$>want>$\exists$),($\forall$>$\exists$>want),($\exists$>$\forall$>want)
     b. Everyone$_j$ wants [John to buy [something for him$_j$]]
     ($\forall$>want>$\exists$),($\forall$>$\exists$>want)
     c. Everyone wants [John$_i$ to buy [something for himself$_i$]]
     ($\forall$>want>$\exists$)

(64a) allows all possible scopes for the object QP *something*: it can be *de dicto* or *de re* with respect to the verb *want*, and it can have wide scope or narrow scope with respect to the matrix subject. In (64b), with the pronoun bound by the subject QP, the very highest scope for the object QP is excluded. As with (62b) discussed above, this reading would entail scoping the object QP above the subject, leaving the pronoun *him$_j$* unbound at LF. Now consider (64c). Here the lower QP contains an anaphoric pronoun *himself$_i$*, which is bound to the embedded subject *John*. Given local binding constraints on the anaphor, the object QP containing the anaphor cannot raise above the intensional verb, hence only the lowest scope for this QP is available. The sentence can thus only mean that everyone has a wish that John buy something for himself, whatever it may be.

A closely related set of cases involves Inverse Linking constructions, discussed in Chapter 2 (May 1977, 1985, Larson 1985, Larson and May 1987, May and Bale 2005) (65a).

(65) a. Someone from every city despises it.   (May 1985, ex.26)
     b. [every city]$_j$ [someone from t$_j$]$_i$ t$_i$ despises **it$_{j/k}$**
     c. [someone [[every city]$_j$ from t$_j$]]$_i$ t$_i$ despises **it$_{*j/k}$**

As we noted, two scopal assignments are available for (65). On the one corresponding to most natural reading (65b), the contained quantifier (*every city*) takes scope over the containing quantifier (*someone*). In this case, *every city* can be understood as binding the object pronoun *it*. On the assignment corresponding to the less natural (pragmatically odd) reading (65c), the containing quantifier (*someone*) takes scope over the contained quantifier (*every city*). Here *every city* cannot be understood as binding the object pronoun *it* and its reference must be fixed deictically/pragmatically.

(62b) above and the inversely linked structure (65b) resemble each other insofar as in both a higher quantifier binds into the nominal restriction (the NP complement) of a lower quantifier (66). In the case of (62a) the relation is pronominal binding (QP$_i$, *him$_i$*); in the case of (65b) the relation is trace binding, produced by movement (QP$_j$, *t$_j$*).

(66)   … QP$_i$ … [Q [$_{NP}$ … x$_i$ …]] …

This makes the interpretation of the lower quantifier dependent on the interpretation of the upper quantifier in a stronger sense than the usual one determined by scope. On the

usual Tarskian semantics for quantifiers, involving alternative assignments of values to variables, interpretation, for example, of a universal quantifier with scope over an existential quantifier (67a) is understood as requiring that for each choice of x from a domain determined by some predicate P, there is a y from a domain determined by some predicate Q such that R(x,y). Here the domains of individuals over which the two quantifiers range are determined independently of each other. In the case of an LF like (66), however, the quantifiers become much more intimately linked (67b).

(67) a. $[\forall x: P(x)]\ [\exists y: Q(y)]\ R(x,y)$
      b. $[\forall x: P(x)]\ [\exists y: \mathbf{S(x,y)}]\ R(x,y)$

Now we require that for each choice of x from domain determined by P that there be a y **from a domain determined by the choice of x** (S(x,y)) such that R(x,y). The domain over which the inner quantifier ranges is thus not determined independently anymore, as in (67a), but instead, relationally with respect to the outer quantifier.

Interestingly, in recent work Stanley and Szabó (2000) and Stanley (2002) have argued that binding into quantifier domain restrictions is far more pervasive than is generally recognized. Thus, as Stanley (2002) observes, (68) is naturally interpreted along the lines of 'Every person x answered every question that x was asked' or 'Every person x answered every question on x's exam', etc. Such an understanding implies the presence of variable somewhere inside the phase *every question* that is available to binding. Similar examples offered by Stanley are (69a,b) (2002, p.5):

(68) Everyone answered every question.   (Stanley (2002), p.4, example 4)

(69) a.   In most of his classes, John fails exactly three Frenchmen.
          'In most of his classes x, John fails exactly three Frenchmen in x'.
      b.   In every room in John's house, he keeps every bottle in a corner.
          'In every room x in John's house, he keeps every bottle in x in a corner.'

Note that the strength of this interpretive effect is considerable. Most speakers report that it is not only natural to interpret the object quantifier domain in (68) and (69) relative to the subject quantifier or the preposed PP, it is virtually <u>necessary</u> to do so. Thus the questions in (68) <u>must</u> be understood as questions-posed-to-the-persons quantified over by the subject. The Frenchmen in (69a) <u>must</u> be understood as Frenchmen-in-John's-classes, etc. This effect is particularly notable in cases of quantifiers that otherwise resist contextual determination. Compare (70a,b):

(70) a.   John spoke to **each boy**.
      b.   John spoke to **each of these three boys**.

In (70a) the domain of quantification is naturally understood as contextually restricted; *each boy* can be understood as 'each boy at the party'/'each boy in John's class', etc. However as observed by Danny Fox (p.c.), (70b) shows much less latitude in that respect. Deictic determination of the quantifier domain by *these* does not readily allow for further contextual restriction. Consider now (71), a variant of (69a):

(71) a. In most of his classes, John fails **each of these three boys**.
   'In most of his classes x, John fails each of these three boys #(in x)'.
   b. Everyone answered **each of these three questions.**
   'Every person x answered each of these three questions on x's exam', etc.

Here again it seems virtually impossible to resist interpreting the three boys in question as boys in John's classes. Similarly for (71b). Hence even in the case of deictic determination, the domain restriction effect continues to assert itself.

3.6.3.2 Scope Freezing as Domain Binding

The cases surveyed above show interesting similarities to what is found with "domain determining constructions" like those setting a topic (72a-c). Note that the latter can be connected to the main clause by means of a trace (72a), or a pronoun that is either explicitly present (72b) or left implicit (72c). Furthermore, as in the quantifier case, it is virtually impossible to resist interpreting the main clause with respect to a topic, and when this is excluded the result is virtually uninterpretable (72d).

(72) a. **Fish$_i$**, Mary eats **t$_i$** every Friday.
   b. **As for fish**, Mary eats **it** every Friday.
   c. **As for fish**, Friday is Mary's preferred day.
   d. #**As for fish**, Mary buys Rolex watches.

I propose an account of Scope Freezing that assimilates it to domain restriction binding and, in particular, leverages the fact that all of Russian inversion constructions discussed above have the general effect of "topicalizing" the fronted item[94].

   Given these observations I want to suggest that when a quantifier is raised over another to a c-commanding position the result is, effectively, creation of a "domain topic" as in (69a) that must be resumed by binding in the quantifier beneath it (73).

(73) $\ulcorner$----------------$\urcorner$
                        $\downarrow$ ***BINDING***

---

[94] Spell this out a bit more, briefly confirming that all the constructions in our list have the effect of topicalizing the moved element. Descriptive stuff on this in the Russian literature.

$$\ldots \mathbf{QP_i} \ldots [\text{ Q } [_{NP} \ldots x_i \ldots]] \ldots \mathbf{QP}_i \ldots$$

MOVEMENT

Creation of this binding relation has the outcome of freezing relative scopes of the two QPs insofar as any further movements the two make must preserve binding on pain of an unbound variable (x_i) at LF as in (63) above.

To illustrate this with a concrete example, consider the Russian equivalent of the "double object construction" (74a), which shows frozen scope, and which I assume to derive from an underlying ACC-DAT order by raising the dative over the accusative (X14a). Assuming the picture in (X13), this induces a binding relation between the raised existential quantifier *[kakoj-to devočke]₁* and a variable contained within the domain restriction of the universal *[každuju igrušku]*. For simplicity, I will indicate this binding relation by a superscript index on the lower nominal *igrušku¹* (74c):

(74) a. Maša   predložila   [kakoj-to devočke]   [každuju igrušku]
       Masha   offered   [some   girl] (DAT) [every   toy] (ACC)
       'Masha offered some girl every toy'   (∃>∀),*(∀>∃)

   b. Maša predložila **[kakoj-to devočke]** [každuju igrušku] [kakoj-to devočke]

   c. Maša predložila **[kakoj-to devočke]ᵢ** [každuju igrušku**ⁱ**] [kakoj-to devočke]

As pointed out by Tatevosov (p.c.), the intuition of domain dependence is not especially strong with cases like (74); a potential way to interpret *igrušku¹* is as 'toy for x_i to have' so that (74c) is interpreted 'Mary presented some girl x with every toy y for her (= x) to have'. In other cases, however, the sense of domain dependence is much clearer. Thus consider (75a), an example of what I termed "reflexive monotransitives". (75a) exhibits scope freezing just like ditransitives and *spray-load* verbs and I assume it derives from an underlying INSTR > ACC order by raising the accusative over the instrumental (75b). By assumptions this induces a binding relation between the raised existential quantifier *[ot kakogo-to pacienta]₁* and a variable contained within the domain restriction of the universal *[každoj bolezn'ju]* (75c):

(75) a. Maša zarazilas'   [ot kakogo-to pacienta]   [každoj bolezn'ju]
       Masha infected (REFL) [from some patient](ACC) [every illness] (INSTR)
       'Masha got infected with every illness by some patient'   (∃>∀),*(∀>∃)

   b. Maša zarazilas' **[ot kakogo-to pacienta]** [každoj bolezn'ju] [ot kakogo-to pacienta]

c. Maša zarazilas' **[ot kakogo-to pacienta]**ᵢ [každoj bolezn'juⁱ] [ot kakogo-to pacienta]

Here we plainly understand the illnesses Masha developed precisely as the illnesses of the relevant patient, so that (75a) I understood equivalently to 'Some patient x infected Masha with all of x's illnesses'. Here binding into the domain restriction of the universal is straightforward. Again, assuming this binding is established by raising it will need to be preserved in any further movements of the two quantifiers. Hence, although there is no barrier to the QPs' raising higher (for example, out of an embedded clause), their relative scope order must be maintained for LF well-formedness.

3.6.3.3   Evidence for the Analysis: Intervention Effects

Potential evidence for the proposed analysis comes from the domain of intervention effects. We earlier noted the example pair in (11a,b) (repeated below as 76a,b) and the suggestion by Higginbotham that contrast is explained if polarity items like *anything* must occur within the immediate scope of their triggers at LF. (76b) is ruled out, so the suggestion goes, because *anything* must remain within the scope of *someone* and hence cannot occur in the immediate scope of *no one* at LF.

 (76) a.   No one gave Bill anything
　　　 b.   ??No one gave someone anything.
　　　 c.   someone > no one > anything

Note however that this explanation is not quite adequate as it stands. If *no one* were able to occur <u>between</u> *someone* and *anything* at LF, *anything* would occur within the immediate scope of its trigger and *someone* still would preserve scope over it. Evidently for the scope explanation to go through, some principle must independently block the scope assignment in (76c), where *no one* "splits" the other two quantifiers.

Interestingly, similar effects have been observed with Inverse Linking. Larson (1985) notes with respect to (77a) that if the embedded quantifier *every city* scopes over the subject *two politicians*, then the object *someone* must scope over the subject too. In other words, whereas (77a) has the inversely linked readings in (77b), the reading in (77c), where the subject quantifier *two politicians* "splits" the universal and the existential, is unavailable.[95]

---

[95] Under (77c) *Two politicians spy on someone from every city* would be true in circumstances where:
- 　for every city, there are two politicians who each spy on someone from that city;
- 　no politician spies on more than one person;
- 　no politician spies on the same person as another politician.

(77) a.   Two politicians spy on someone from every city. (Larson 1985:5, example 12)

   b. $2 > \forall > \exists, \ \forall > \exists > 2$

   c. $*\forall > 2 > \exists$

Noting this point, May and Bale (2005) conclude that inversely linked QPs must move as a syntactic unit, with the embedded QP unable to fully raise out of the embedding QP and receive independent scope, as required for (77c). This conclusion appears too strong, however. Larson (p.c.) notes that (78) can be true in a situation where for every one of the cities x (in some list, for instance), John wants exactly two politicians y from x to be present, and where he may not care about who those politicians will be, as long as exactly two from each city on the list arrive.

(78) a.   John wants two politicians from every city to be present.

   b. $\forall > want > 2$

On this reading *every city* is construed *de re* with respect to the intensional predicate *want*, while *two politicians* is interpreted *de dicto*. Since the two QPs are split by intensional *want* on this reading (78b), it follows that they cannot be restricted to move as a syntactic unit; *every city* must be able to take scope independently over V[96]. A more empirically correct conclusion thus seems be that inversely linked QP1/QP2 are subject to an intervention or minimality constraint (79), which disallows them from being interrupted by another QP.

(79) … QP1 … α … QP2 … *if α = QP

(77a) is thus acceptable on reading (77b) because what intervenes is an intensional V. By contrast (77a) is unacceptable on reading (77c) because the intervener is another QP. Presumably (79) holds in virtue of the binding relation between QP1/QP2, and that the latter is interrupted by the presence of another QP.

Note now that if this line of thinking is correct, then reading (76c) for (76a) can be ruled out on similar grounds if we assume a comparable binding relation between *someone* and *anything* as proposed under the current account. The parallel intervention effects in (76) and (77) thus argue for a common account in terms of binding.

3.6.3.4   A Potential Parallel: Rigidity in Multiple Subject Constructions

Potential support for the domain binding account is also found in a broad parallelism holding between the scope freezing investigated here and a similar "rigidity

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This reading does not appear to be available.

[96] As noted in Chapter 2, I am assuming here a standard account of *de dicto*/*de re* ambiguity as scope with respect to the intensional verb.

phenomenon" occurring in multiple nominative constructions like (80a-d) in Korean (from Sun 2014). The iterated nominatives in (80a-d) are largely synonymous with the Korean possessives in (81a-d) (resp.), however there are significant differences between the two constructions.

(80) a. **Meyli-ka ttal-i** yeyppu-ta
Mary-NOM daughter-NOM pretty-DECL
'As for Mary, her daughter is pretty',
'Mary's daughter is pretty'

b. **Meyli-ka ttal-i nwun-i** yeyppu-ta
Mary-NOM daughter-NOM eye-NOM pretty-DECL
'As for Mary, as for her daughter, her eyes are pretty',
'Mary's daughter's eyes are pretty'

c. **Meyli-ka ttal-i nwun-i saykkal-i** yeyppu-ta
Mary-NOM daughter-NOM eye-NOM color-NOM pretty-DECL
'As for Mary, as for her daughter, as for her eyes, their color are pretty',
'Mary's daughter's eyes' color' is pretty'

d. Meyli-ka **ttal-i nwun-i saykkal-i chayto-ka** yeyppu-ta
Mary-NOM daughter-NOM eye-NOM color-NOM intensity-NOM pretty-DECL
'As for Mary, as for her daughter, as for her eyes, as their color, their intensity is pretty',

'Mary's daughter's eyes' color's intensity is pretty'

(81) a. **Mary-uy ttal-i** yeyppu-ta
Mary-GEN daughter-NOM pretty-DECL
'Mary's daughter is pretty'

b. **Mary-uy ttal-uy nwun-i** yeyppu-ta
Mary-GEN daughter-GEN eye-NOM pretty-DECL
'Mary's daughter's eyes are pretty'

c. **Meyli-ka ttal-i nwun-i saykkal-i** yeyppu-ta
Mary-GEN daughter-GEN eye- GEN color-NOM pretty-DECL
'Mary's daughter's eyes' color' is pretty'

d. Meyli-ka **ttal-i nwun-i saykkal-i chayto-ka** yeyppu-ta
Mary-GEN daughter-GEN eye-GEN color-GEN intensity-NOM pretty-

DECL

'Mary's daughter's eyes' color's intensity is pretty'

Whereas true possessives like (81a-d) form constituents and so resist interruption by sentential adverbs (82a,b), iterated nominatives appear to form a sequence of independent DPs and permit adverb interruption (82c,d):

(82) a. *Mary-uy **tahaynghi** ttal-i yeyppu-ta
Mary-GEN fortunately daughter-NOM pretty-DECL
'Fortunately, Mary's daughter is pretty'

  b. *Mary-uy ttal-uy **tahaynghi** nwun-i yeyppu-ta
  Mary-GEN daughter-GEN fortunately eye-NOM pretty-DECL
  'Fortunately, Mary's daughter's eyes are pretty'

  c. Meyli-ka **tahaynghi** ttal-i yeyppu-ta
  Mary-NOM fortunately daughter-NOM pretty-DECL
  'Fortunately, Mary's daughter is pretty'

  d. Meyli-ka ttal-i **tahaynghi** nwun-i yeyppu-ta
  Mary-NOM daughter-NOM fortunately eye-NOM pretty-DECL
  'Fortunately, Mary's daughter's eyes are pretty'

Relevantly for our purposes, although iterated nominatives are a sequence of independent DPs, they are rigid in their surface linear order. Permutations of such DPs yields ungrammaticality (83a,b) (cf. 80a,b).

(83) a. ***Ttal-i Meyli-ka** yeyppu-ta
daughter-NOM Mary-NOM pretty-DECL
'Mary's daughter is pretty'

  b. ***Meyli-ka nwun-i ttal-i** yeyppu-ta
  Mary-NOM eye-NOM daughter-NOM pretty-DECL
  'Mary's daughter's eyes are pretty'

Numerous analysts have ascribed order rigidity in multiple nominatives to binding - either binding of a trace produced by "possessor raising" from the right-adjacent DP (84a) (Sun 2014) or binding of a pronominal element (*pro*) contained within it (84b) (Cho, Yoon, Vermeulen). Under either view, scrambling of the nominal containing the trace or pronoun (*t/pro ttal-i*) over its binder (*Meyli-ka*) yields a loss of the binding relation (84c), hence the ungrammaticality of (83,b).

(84) a. [_DP **Meyli-ka**] [_DP t **ttal-i**]

b. [$_{DP}$ **Meyli-ka**] [$_{DP}$ *pro* **ttal-i**]

c. *[$_{DP}$ *pro* **ttal-i**] [$_{DP}$ **Meyli-ka**] _____

Note also that the multiple nominative construction has a "domain setting" character, insofar as each nominal sets the topic in relation to which the immediately following nominal is interpreted. Thus in (81c), we interpret 'daughter' in relation to Mary, 'eyes' in relation to (Mary's) daughter, and 'color' in relation to (Mary's daughter's) eyes. The character of this relation is transparent in (81) since it is given by the relational nouns *daughter*, *color* and *eyes* themselves. As discussed by Sun (2014), the situation becomes more flexible with non-relational nouns. Thus in (85a), we understand the relation of the first nominative to the second as one of hyponymy, i.e., category to member of it; in (85b), we understand the relation as temporal location; and in (85c) we understand it as spatial location.

(85) a. **Kkoch-i   cangmi-ka** yeyppu-ta
        flower-NOM rose-NOM   pretty-DECL
        'Among flowers, the rose is pretty'

    b. **Yelum-i   maykcwu-ka** choyko-ta
        summer-NOM beer-NOM   best-DECL

        'Beer in the summer time is the best'

    c. **kosoktolo-ka thonghaynglyo-ka** pissa-ta
        highway-NOM toll-NOM   expensive-DECL
        'Highway toll is expensive'

On the view proposed here, scope order freezing with quantifiers and word order rigidity with multiple nominatives arise from the same source and shows essentially the same properties. In both cases the source of order fixation is a binding relation between one DP and the nominal contained in another DP below it (86). The first DP thus sets or determines a parameter with respect to which the second DP is interpreted.

(86) … DP$_i$ … [$_{DP}$ [$_{NP}$ … x$_i$ …]] …

When the nominal in question is relational, the binding relation is transparent; cf. (87a,b) and (88a,b):

(87) a. Maša zarazilas'   [ot kakogo-to pacienta]   [každoj bolezn'ju]
        Masha infected (REFL)   [from some patient] (ACC)   [every illness] (INSTR)
        'Masha got infected with every illness by some patient'   (∃>∀),*(∀>∃)

b. [∃x: patient(x)] [∀y: **illness(y) & from(y,x)**] got.infected(Masha,x,y)

(88) a. Mary-uy   ttal-i   yeyppu-ta
       Mary-GEN daughter-NOM pretty-DECL
       'Mary's daughter is pretty'

   b. [Mary]$_x$ [ιy: **daughter-of(y,x)**] pretty(y)

When the nominal is non-relational the binding relation is less obvious, and is somehow inferred or constructed; cf. (89a,b) and (90a,b):

(89) a. Maša   predložila   [kakoj-to devočke]   [každuju   igrušku]
       Masha   offered   [some   girl] (DAT) [every   toy] (ACC)
       'Masha offered some girl every toy'   (∃>∀),*(∀>∃)
   b. [∃x: girl(x)] [∀y: **toy(y) & for(y,x)**] offer(Masha,x,y)

(90) a. Kkoch-i   cangmi-ka yeyppu-ta
       flower-NOM rose-NOM   pretty-DECL
       'Among flowers, the rose is pretty'
   b. [flowers]$_x$ [ιy: **rose(y) & member-of(y.x)**] pretty(y)

Evidently, if the apparent parallelism in the two rigidity phenomena (scope and word order) is a genuine one, it would be desirable to bring them under a single account. The domain binding account of scope freezing proposed here would make this possible[97].

3.6.3.5   Remaining Questions

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[97] Interestingly, intervention effects noted above for scope frozen quantifiers do not seem to hold for order rigid nominatives. Whereas scope frozen quantifiers permit the interpolation of an intensional V at LF (recall 77), but resist an intervening quantifier (76), order rigid Korean nominatives permit interpolation of both a sentential Adv (82a) and a scrambled DP (i) (due to Jiwon Yun, p.c.).

(i) a. Meyli-ka   ttal-i   swuhak-ul kaluchinta
       Mary-NOM daughter-NOM math-ACC teaches-DECL
       'Mary's daughter teaches math'
   b. Meyli-ka **swuhak-ul** ttal-i kaluchinta

An important feature of the current account is that crossing one quantifier over another to a c-commanding position establishes a binding relation between the two (73) (repeated below)[98].

(73)   BINDING

      … QP_i … [Q [$_{NP}$ … x_i …]] … QP_i …

            MOVEMENT
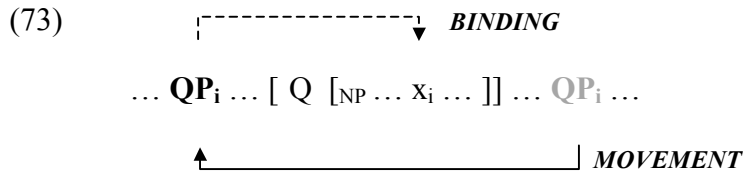
We may ask: how is this binding relation created? Specially, is the variable already present in the quantifier that is crossed over? If so, why does binding not induce a Weak Cross Over violation? Furthermore, even if the quantifier crossed over does contain a bindable domain variable, what forces binding to occur? Alternatively, if the variable is not present antecedent to movement, how is it created by movement? By what process? At this point I can offer only tentative answers to these questions.

Assuming the variable in the quantifier crossed over is already present somewhat analogizes the construction to Inverse Linking, where the embedded quantifier binds a variable in the predicate that it did not c-command prior to movement (91). For unclear reasons, this binding does not induce WCO. Accordingly, we might assume parallel WCO violation avoidance in the scope freezing case for the same (obscure) reasons:

(91)   BINDING

---
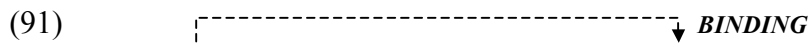
[98] As pointed out to me by Richard Larson (p.c.), it is standard in the literature on scope freezing to think of the phenomenon exclusively in the following terms:

(i) …   QP1 … QP2 … are frozen   =   one cannot raise QP2 above QP1

The observations of this paper is that there is another independent half to this:

(ii) … QP1 … QP2 … are frozen   =   you cannot lower QP1 beneath QP2

The empirical phenomenon of Scope Freezing is that adjustments in BOTH directions are blocked. Let us think about this point wrt Bruening's (2001) analysis, for instance. It appears that his view handles only the first half - the raising half. Specifically, why should the existence of a higher probe block lowering? In fact, one might simply expect that, after lowering QP1 beneath QP2, QP2 would simply become the highest QP wrt the higher probe and hence be the one to get wide scope. The current account, by contrast, gets the distribution of facts right specifically since either raising QP2 above QP1 or lowering QP1 beneath QP2 will break the binding relation between them that gets established by raising.

[every city]$_j$ [someone from t$_j$]$_i$ t$_i$ despises **it$_{j/k}$**

|⟵_____| *MOVEMENT*

More difficult is the question of why binding apparently <u>must</u> occur in (73). In the Inverse Linking Construction, binding of a predicate variable is not obligatory; the pronoun in (65) can be interpreted deictically. But in order to generate scope freezing, binding must not only be possible, but <u>required</u>. Here I must advert to the (admittedly vague) point noted earlier, viz., that all the relevant scope freezing movements we are considering have a general topicalization character and topicalization seems in general to require binding by the topic. Thus in (69a) we saw that it is virtually impossible to understand *three Frenchmen* except as constrained by the topic (69b); the binding seems obligatory, as it is in (69b):

(69) a.   In most of his classes, John fails exactly three Frenchmen.
          'In most of his classes x, John fails exactly three Frenchmen in x'.
      b.   In every room in John's house, he keeps every bottle in a corner.
          'In every room x in John's house, he keeps every bottle in x in a corner.'

Hence whatever the "domain setting effect" of topics amounts to, it appears to compel relevant phrases in its scope to be interpreted accordingly – understood here as compelling a binding relation.

An alternative view would be to consider the variable binding relation in (73) to be created by movement itself. Such an idea is not unprecedented. Chung, Ladusaw, and McCloskey (1995) discuss interesting sluicing examples like (92a), where simply reconstructing the matrix TP into the sluice would yield vacuous quantification since *with whom* binds nothing (92b). In order to achieve the correct result, sluicing must apparently allow for the creation or "sprouting" of a new variable (e_i) as part of the reconstruction process (92c):[99]

(92) a.   Joan ate dinner, but I don't know with whom.

___

[99] Chung, Ladusaw, and McCloskey (1995) discuss a number of constraints on the sprouting process, including the fact that it must observe the selectional properties of the reconstruction source and cannot introduce new lexical material (i):

(i)   The governor was speaking with reporters, but I don't know [$_{PP}$ what about]/*[$_{DP}$ what]

All of these properties appear compatible with creation of the domain variable necessary for scope freezing.

b. Joan ate dinner but [TP I don't know [CP with whom [TP **Joan ate dinner**]]]

RECONSTRUCTION

c. … but [TP I don't know [CP with whom$_i$ [TP **Joan [VP[VP ate dinner] [PP e$_i$]]**]]]

It is possible that in the process of topicalizing one quantifier over another, or even of externally merging a topic as in (92b,c), a variable of the appropriate sort is simply created in the way seemingly required for the sluicing process in (92).

Finally, an important question raised by Collins (p.c.) is what differentiates between the overt raising of a QP that arguably causes scope freezing from the covert quantifier raising, QR, which clearly does not. There are two related ways to answer this question. First, as reminded to me by Richard Larson (p.c.), if we conceptualize QR as a relation in which only the operator remains in its LF position, with the restriction being interpreted at the tail of the chain (Fox 1999), then the kind of domain binding I suggest takes place with overt QP crossing simply becomes impossible with QR[100]. Another way to respond to the question would be to note that while the proposed scope-freezing overt QP movement is argued to crucially possess topicalizing properties, the same is not true of QR: to the best of my knowledge no one has argued for the existence of LF Topicalization/ LF Left Dislocation; indeed, it is not clear what the operation would entail and what properties one would ascribe to it. Though obviously important, I must leave further investigation of these issues for future research.

3.7 Summary

I would like to conclude this chapter by listing again all constructions in which scope freezing obtains in Russian and by reminding the reader that what they all have in common is an instance of overt movement of a structurally lower QP across the structurally higher one.

(63) i. ditransitives
ii. reflexive monotransitives
iii. spray-load alternation
iv. spray-load type verbs
v. long-distance scrambling of QPs
vi. local scrambling of QPs

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[100] I believe that this idea provides an argument in favor of Stanley and Szabó's (2000) treatment of variable as localized in the nominal restriction, as opposed to being localized in the quantificational determiner (cf. von Fintel 1994).

In most cases (such as iii., iv., v. and vi.) that there is an instance of overt movement in the frozen sentences is undeniable. In the others (i. and ii.) positing such instance of overt movement (independent of any syntactic evidence favoring such an account)[101] allows us to unify all cases of scope freezing, see the underlying similarity in all of these diverse contexts and to propose a unified account of the phenomenon. The account in terms of Relation $\mathfrak{R}$ proposed in this chapter addresses one of the key properties of scope freezing contexts, namely the <u>relative</u> nature of scope freezing, - the ability of both quantifier phrases to move in scopally frozen contexts, as long as their relative order is preserved. The analogy with ILC and the cases where scope interacts with binding is quite striking and suggests this account must be on the right track. If the key empirical generalization the account rests on, namely the SF Generalization is correct, we also obtain a powerful tool for probing into ditransitive verbs' internal argument structure, which is a highly debated area of research for Slavic syntax as well as crosslinguistically. In the next chapter I will thus assume the SF Generalization is correct, which will allow me to gain some interesting insights into the structure of the Russian ditransitive VP.

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[101] For instance, Bailyn (2009), (2012).

CHAPTER 4. RUSSIAN DITRANSITIVE VP: SCOPE FREEZING AND ARGUMENT STRUCTURE

4.0 Overview of the Chapter

In Chapter 3, having provided evidence from various syntactic contexts supporting the SF Generalization (1), I have proposed that what freezes scope in all surface scope frozen contexts in Russian is an instance of overt movement of a structurally lower QP across a structurally higher one.

(1) **Scope Freezing Generalization (SFG), revised:**
Scope freezing results when one QP raises over another to a c-commanding position as a result of a single instance of movement.

In this Chapter, I assume the SF Generalization motivated in Chapter 3 and show that from it, we can derive important new insights into the structure of the Russian ditransitive VP. Specifically, I show that the SF Generalization implies Russian ditransitives do not form a homogeneous group, but rather divide into at least three subclasses of verbs, each with distinct properties (as suggested by various additional tests) and with distinct base structures. I will also show that each class permits two alternative word orders one of which is derived.

I begin by briefly sketching current views of the Russian VP. I then use my data and the SF Generalization to provide an alternative to these views, suggested primarily by the scope behavior of these ditransitive verbs. Additionally, given all the similarities between English and Russian, I will tentatively suggest that the results obtained here are not limited to Russian but cut across the debate on the ditransitive VP structure crosslinguistically.

4.1 A Brief Review of Russian Ditransitive Structure

To summarize the current views of the Russian ditransitive VP, 3 main types of approaches can be singled out:

(2)   a. **Dative Goal object originates in Spec, VP position**, assigned Dative case as sister to V' (see Harbert & Toribio 1991; Greenberg & Franks 1991; Franks 1995; Richardson 2007)

b. **Accusative Theme object is generated in Spec, VP position**, with the Dative originating in the complement position (Bailyn 1995, 2009, 2012)[102]

c. **Dative Goal object is assigned case by an Applicative head** (Dyakonova 2005, 2007, following Pylkkänen 2002)

I will not provide any supporting evidence for any of the above views but instead will direct the reader to the original sources[103]. As we will see in the course of this chapter, studying Russian ditransitives from the perspective of quantifier scope (in particular, scope freezing patterns), using the SF Generalization as our main tool for probing argument structure, will lead us to the rather surprising conclusion: Russian ditransitives are not a homogeneous group but instead subdivide into three distinct group, which each requiring a distinct syntactic structure, with the structure in (2b), as in to Bailyn 1995, arguably being one of these.

4.2 The Basic Empirical Generalization: 3 Classes of Russian Ditransitives

In this section I introduce the basic empirical generalization that Russian evidences three different classes of ditransitive constructions with respect to scope freezing, rather than behaving as a homogeneous group (which would require positing one base structure for the whole group). The Russian ditransitive constructions all share the property of showing an accusative (ACC) and an oblique (OBL) marked complement that can occur in either order in surface form. The groups are distinguished according to the effect that word order alternation has on their scope interpretation possibilities. Thus, based on their scope behavior alone, we can distinguish between three distinct classes of ditransitives in Russian, schematized below as follows:

(3)   **Group 1**
        ACC > OBL (ambiguous)
        OBL > ACC (frozen)

---

[102] The structure provided in Bailyn (1995, 2012) is [$_{VP}$ NP$_{ACC}$ [$_{V'}$ V XP$_{DAT/OBL}$]]. As noted in Bailyn (2012), the accounts in (2a) above share with his "the conclusion that Accusatives and Datives are associated with distinct structural positions, and that both receive case configurationally, a view central to my analysis" (p.140)

[103] For an extensive overview, see Bailyn (2012). In Chapter 3 I provide several key tests from Bailyn (1995, 2009/2012) as supporting evidence for his ditransitive structure [$_{VP}$ NP$_{ACC}$ [$_{V'}$ V XP$_{DAT/OBL}$]].

(4)   **Group 2**
       OBL > ACC (ambiguous)
       ACC > OBL (frozen)

(5)   **Group 3**
       OBL > ACC (ambiguous)
       ACC > OBL (ambiguous)

I will illustrate these three distinct groups of ditransitives with examples, first providing them in sentences without QPs and then using QPs in place of the verb's internal arguments to show how they differ from each other in terms of their scope behavior.

4.2.1 Group 1: "ES Pattern"

Group 1 is exemplified by Russian verbs such as *potrebovala*, ('demanded') which selects an Accusative Theme and a source ('from') PP whose head governs the Genitive (6a). These complements may occur in either order (6b).

(6) a. Maša   potrebovala   den'gi   s   Ivana
       Masha   demanded   money(ACC)   from Ivan(GEN)
       'Masha demanded money from Ivan'
    b. Maša   potrebovala   s   Ivana   den'gi
       Masha   demanded   from Ivan(GEN)   money(ACC)
       'Masha demanded money from Ivan'

When the complements are referring terms, as in (6), no truth conditional difference attends word order choice, with the only perceptible differences related to the informational status of the two object phrases. However when the objects of "potrebovala" are quantified phrases, word order alternation encodes a scope difference. In the order ACC > GEN/OBL the sentence is ambiguous. Thus (7a) can be read as asserting that there is some one set of documents that Masha requires all visitors to produce, or that all visitors are required to have documentation, perhaps different documents for each. By contrast, in the order GEN/OBL > ACC the sentence is unambiguous. (7b) asserts that there is some one visitor of which every document is required. No "∀∃" reading is permitted[104]:

(7) a. Maša potrebovala [kakie-to dokumenty] (s každogo posetitelja) (amb)   ∃∀/∀∃
       Masha demanded [some documents] (ACC) [PP from every visitor] (GEN)
       'Masha demanded some documents from every visitor'

---

[104] A word on notation: throughout this chapter (and Appendix 1), the phrase in square brackets represents the argument that absolutely cannot be dropped. The one in parenthesis represents the internal argument that may be dropped/deleted while still being implicitly understood.

b. Maša potrebovala (s kakogo-to posetitelija) [každyj document]   (frozen) ∃∀/*∀∃
Masha demanded [$_{PP}$ from some visitor] (GEN) [every document] (**ACC**)
'Masha demanded every document from some visitor'

Another Russian verb displaying this pattern is *prostila* ('forgave'), which selects an Accusative Theme and an Oblique Goal, marked with Dative case (8a,b)[105],[106]:

(8) a. Maša   prostila [kakoje-to predatel'stvo] (každoi podruge) (amb) ∃∀/∀∃
      Masha   forgave [some betrayal] (ACC)   [every girlfriend] (DAT)
      'Masha forgave some betrayal to every girlfriend'
   b. Maša prostila (kakoi-to podruge) každoje predatel'stvo   (frozen) ∃∀/*∀∃

      Masha forgave [some girlfriend] (DAT) [every betrayal] (ACC)
      'Masha forgave some girlfriend every betrayal'

The alterations in (7a,b)/(8a,b) resemble the scope freezing pattern of English alternating dative ditransitives. As we recall, the ACC > OBL/THEME > GOAL order of quantifiers is ambiguous (9a), allowing either quantifier to be read with wide scope. However, the GOAL > THEME order is frozen (9b), allowing only the surface order.

(9) a. Alice assigned some exercise to every student   (amb)   ∃∀/∀∃
     b. Alice assigned some student every exercise   (frozen)   ∃∀/*∀∃

In terms of morphological complement shape, the Russian (7a,b)/(8a,b) even more strongly resemble the pattern of Spanish dative ditransitives, as discussed by Bleam (2003), where inversion of a dative PP over the direct object (in the presence of the cliticized V) yields frozen scope.

(10) a. Juan le envió todo libro   [a un pariente]   (amb)   ∀∃/∃∀
         Juan CL sent   every book   to a relative
         'Juan sent every book to a relative

     b. Juan le envió [a un pariente]   todo libro   (frozen)   ∃∀/*∀∃
         Juan CL sent   to a   relative   every book

In virtue of the similarities between Russian (7a,b)/(8a,b) and the English and Spanish examples discussed in the literature, I will describe Group 1 ditransitive predicates in Russian as showing the "English-Spanish Pattern" or "ES Pattern" for short.

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[105] I take Dative case to be an Oblique case.
[106] See Appendix 1 for additional examples of Group 1, Group 2 and Group 3 verbs, as well as for many additional tests supporting my classification that are not discussed in the main text in this Chapter.

4.2.2 Group 2: "Reverse ES Pattern"

The example in (11) presents a Group 2 predicate with non-quantificational arguments. The alternate word orders encode only information status; no truth conditional difference is detected:

(11) a. Maša   obozvala   (nexorošim slovom)   [vrednogo malčika]
          Masha   called   [bad word] (INSTR)   [capricious boy] (ACC)
          'Masha called a capricious boy with a bad word'
        b. Maša   obozvala   [vrednogo malčika]   (nexorošim slovom)
          Masha   called   [capricious boy] (ACC) [bad word] (INSTR)
          'Masha called a capricious boy with a bad word'

The situation is different with (12a,b), however, where the two internal objects are quantificational phrases. Here, the order on which the Instrumental-marked phrase precedes the Accusative marked phrase is scopally ambiguous, whereas the opposite order of internal arguments, where the Accusative-marked QP precedes the Instrumental-marked one, is surface scope frozen.

(12)   a. Maša   obozvala   (kakim-to prozviščem) [každogo malčika]   (amb)
           Masha   called   [some nickname] (INSTR) [every boy] (ACC)
          'Masha called every boy by some nickname'
        b. Maša   obozvala [kakogo-to malčika] (každym prozviščem)   (frozen)
           Masha   called   [some boy] (ACC)   [every nickname] (INSTR)
          'Masha called some boy by every nickname'

Another example belonging to Group 2 that demonstrates these properties is (13a,b): the order on which the Instrumental-marked QP precedes the Accusative is scopally ambiguous (13a), whereas the inverted order is frozen (13b).

(13)   a. Maša   ugostila   (kakim-to pečenjem) [každogo rebenka]   (amb)
           Masha   treated   [some cookie] (INSTR) [every child] (ACC)
          'Masha treated every child to some cookie'
        b. Maša   ugostila   [kakogo-to rebenka] (každym pečenjem   (frozen)
           Masha   treated   [some child] (ACC) [every cookie] (INSTR)
          'Masha treated some child to every cookie'

What differentiates Group 2 from Group 1 is the obvious fact that the surface scope frozen order results when the oblique argument QP precedes the Accusative-marked QP, hence the name, the "Reverse ES Pattern".

4.2.3 Group 3: "Free Pattern"

Finally, there are verbs that behave neither like Group 1 nor like Group 2, both of which have in common that one order of their internal arguments is scopally frozen whereas the opposite order is ambiguous. With Group 3 predicates, the scope is free no matter whichever internal argument comes first. Consider the example in (14), again introduced with non-quantificational phrases[107]:

(14) a. Maša   razmestila [babuškino soobšenije]   *(v gorodskoj gazete)
      Masha posted   [grandmother's message] (ACC) [PP in city newspaper] (PREP)
      'Masha posted her grandmother's message in the city newspaper'

    b. Maša   razmestila   *(v gorodskoj gazete) [babuškino soobšenije]
      Masha posted [PP in city newspaper] (PREP) [grandmother's message] (ACC)
      'Masha posted her grandmother's message in the city newspaper'

Compare now (15a,b) and (16a, b) with quantifiers. Here the order of quantificational internal arguments yields no truth conditional difference; specifically on both orders the sentences are scopally ambiguous:

(15)   a. Maša razmestila [kakoje-to soobšenije] *(v každoi gazete)   (amb)
      Masha posted [some message] (ACC) [PP in every newspaper] (PREP)
      'Masha posted some message in every newspaper'
      b. Maša razmestila *(v kakoi-to gazete) [každoje soobšenije]   (amb)
      Masha posted [PP in some newspaper] (PREP) [every message] (ACC)
      'Masha posted every message in some newspaper'

(16)   a. Maša napisala [kakoj-to slogan] (na každoj stene)   (amb)
       Masha wrote [some slogan] (ACC) [PP on every wall] (PREP)
      'Masha wrote some slogan on every wall'
      b. Maša napisala (na kakoj-to stene) [každyj slogan]   (amb)
       Masha wrote [PP on some wall] (PREP) [every slogan] (ACC)
      'Masha wrote every slogan on some wall'

In view of the contrast with Group 1/Group 2 predicates, I will describe Group 3 verbs as exhibiting the "Free Pattern".

The question naturally arises, how should we analyze the three Groups - specifically to what should we attribute their differences in scope behavior, given that in terms of

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[107] The star notation in the following examples in meant to indicate that, in my intuition, the starred phrase cannot be dropped/elided without causing at least mild infelicity.

information structure at least, they seem to behave as a homogeneous group? Under the results from Chapter 3, where I propose that scope freezing results from crossing one QP over another in overt syntax, the structural expectations for the three Groups of ditransitive predicates are clearly the following:

(17)

Group 1: ES Pattern

| V NP-ACC NP-OBL | BASIC ORDER | (amb) |
| V NP-OBL NP-ACC **NP-OBL** | DERIVED ORDER | (frozen) |

↰_____/

Group 2: Reverse ES Pattern

| V NP-OBL NP-ACC | BASIC ORDER | (amb) |
| V NP-ACC NP-OBL **NP-ACC** | DERIVED ORDER | (frozen) |

↰_____/

Group 3: Free Pattern

| V NP-ACC NP-OBL | BASIC ORDER | (amb) |
| V NP-OBL NP-ACC | BASIC ORDER | (amb) |

| V NP-CASE1 NP-CASE2 | BASIC ORDER | (amb) |
| V […NP-CASE2…] NP-CASE2 | DERIVED ORDER | (amb) |

Thus in Group 1 we expect the frozen NP-OBL NP-ACC order to reflect raising of NP-OBL over NP-ACC. In Group 2 we expect the frozen NP-ACC NP-OBL order to reflect raising of NP-ACC over NP-OBL. In Group 3 we have at least two possibilities, as we will see: either both orders are nonderived (i.e., base generated) or else one is in fact derived by movement but results in a configuration that fails to freeze scope.

In the next section I will propose structures for the three Groups of Russian ditransitives, based on the results of various types of syntactic and lexico-semantic tests that strongly

suggest these Groups should indeed be analyzed differently in terms of their underlying structures[108].

4.3 The Proposed Structures of the Three Groups of Russian Ditransitives

4.3.1 Given that Groups 1 and 2 are essentially the mirror image of each other with respect to scope behavior, with one order of internal arguments frozen and the opposite order fluid, it makes sense to approach them in a similar fashion, with the same logic applying to both Groups. Specifically, taking the SF Generalization as our background assumption, we are committed to the conclusion that the two orders of the predicates belonging to Group 1 and Group 2, despite their differences, are derivationally related. That is, both Group 1 and Group 2 verbs will require a derivational analysis of their base-generated structures.

4.3.1 Possible Structures for Group 1 Predicates

To remind the reader, Group 1 predicates are those where scope is frozen on OBL > ACC order and is free on the ACC > OBL order. Logically speaking, two kinds of analyses appear to be possible, given our underlying assumptions[109]:

(18)   (a) OBL has been topicalized to an adjoined position.
       (b) OBL has been raised to spec of an applicative head.

With respect to (18a), two possibilities are in principle available. First, either the structurally lower Oblique QP overtly raises quite high and adjoins to vP (19), or, the second option, is that it raises to a lower position, adjoining to VP (20).

(19) Oblique argument adjoins to vP:

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[108] In addition to the tests discussed in the chapter, many more others tests are discussed in Appendix 1, confirming that the three groups of predicates are in fact different, each exhibiting a different set of properties (with predicates belonging to Group 1 and Group 3, however, sharing a number of characteristics).

[109] As a reminder, I assume that the frozen scope order is derived via overt Topicalization-like movement and that in most cases ambiguous scope is an indicator of non-derived order (though remember the discussion of ambiguous OVS orders in Chapter 3 and see discussion on Group 3 predicates below).

TP
DP   T'
T   vP
OBL   vP
DP   v'
v   VP
DP(ACC)   V'
V   OBL

(20) Oblique argument adjoins to VP:

TP
DP   T'
T   vP
DP   v'
v   VP
OBL   VP
DP(ACC)   V'
V   OBL
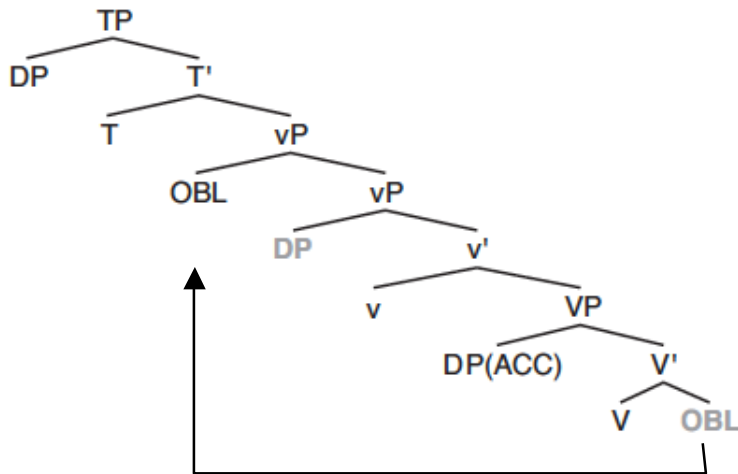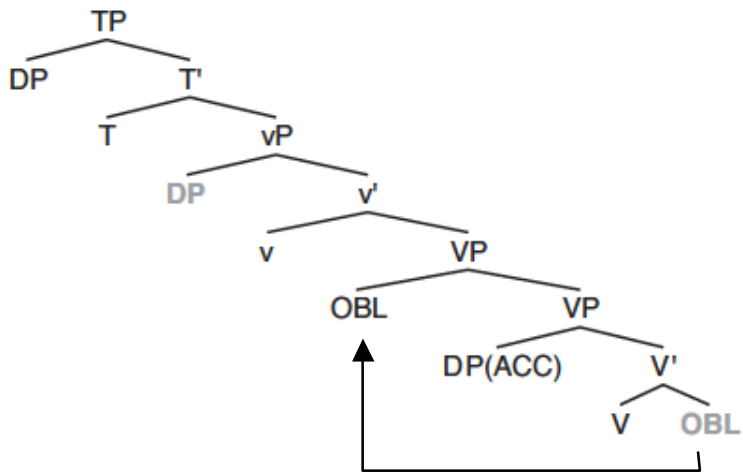
Note that to get the word order to work out correctly with the structure in (19), we need to assume that the lexical verb routinely raises to T in Russian – a non-standard assumption[110]. On the structure in (20), V to T raising is not required. Consider also the distribution of Agent-oriented adverbs ("deliberately", "purposely", "willingly" etc.), which are typically assumed to adjoin to the high vP where the Agent role is introduced

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[110] See King (1995), Bailyn (1995), (cf. Bailyn 2004) and Bailyn (2012) for an extensive discussion of the issue. Experimental results reported in Kallestinova and Slabakova (2007) similarly suggest the verb does not undergo raising to T in Russian.

or checked. Structure (19) predicts the possibility of either order: ADV > OBL or OBL > ADV, depending on the order in which one adjoins ADV vs. OBL. The two structures are given in (19'a.b) below:

(19')

a.

```
              TP
        ┌─────┴─────┐
       DP           T'
              ┌──────┴──────┐
              T             vP
                      ┌──────┴──────┐
                     ADV            vP
                              ┌──────┴──────┐
                             OBL            vP
                                      ┌──────┴──────┐
                                     DP             v'
                                              ┌──────┴──────┐
                                              v             VP
                                                      ┌──────┴──────┐
                                                  DP(ACC)           V'
                                                               ┌────┴────┐
                                                               V        OBL
```

b.

```
              TP
        ┌─────┴─────┐
       DP           T'
              ┌──────┴──────┐
              T             vP
                      ┌──────┴──────┐
                     OBL            vP
                              ┌──────┴──────┐
                             ADV            vP
                                      ┌──────┴──────┐
                                     DP             v'
                                              ┌──────┴──────┐
                                              v             VP
                                                      ┌──────┴──────┐
                                                  DP(ACC)           V'
                                                               ┌────┴────┐
                                                               V        OBL
```
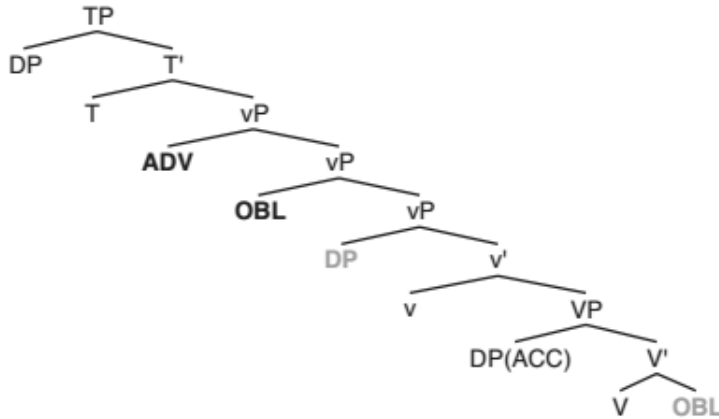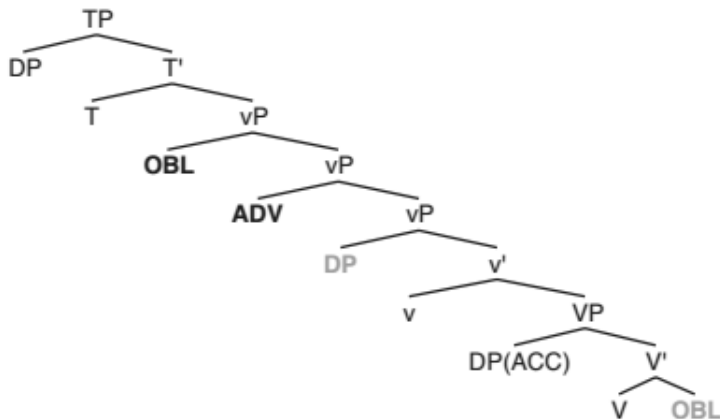
Structure (20), on the other hand, predicts only the ADV > OBL order with agentive ADVs:

(21)
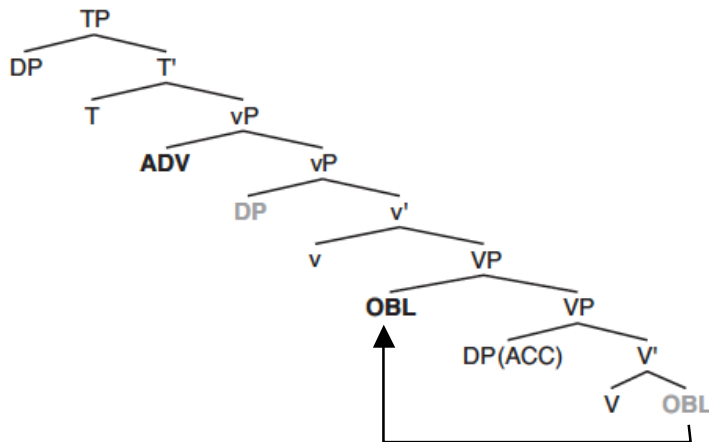
Testing this prediction with one of our Group 1 predicates, presented earlier, we get the following results:

(22) a. Maša   special'no   potrebovala   s   Ivana   dengi
     Masha   purposefully demanded   from   Ivan (GEN)   money (ACC)
     'Masha demanded money from Ivan'

   b. *Maša   potrebovala   s   Ivana   special'no   dengi
      Masha   purposefully from   Ivan (GEN)   demanded   money (ACC)

Thus, it appears that in terms of adjunction analyses, the structure in (20) is much more closely aligned with the Russian data than the one in (19). (20) is the structure proposed for Russian ditransitives in Bailyn (1995, 2012), based on independent types of evidence; hence these results provide further support for Bailyn's proposal[111].

Another possibility for Group 1 predicates is that the lower Oblique overtly raises into the Spec position of an Applicative head. The two possibilities here seem to be these:

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[111] Note that this type of proposal implicitly or explicitly assumes that the type of movement in question is Scrambling, specifically A Scrambling (see Bailyn's arguments from binding to this effect, for instance). The obvious problem to be addressed, of course, is why an adjoined position should have A, rather than A' properties. Currently I do not have any answer to this question. As a very tentative suggestion, I would hypothesize that may be this fact has to do with the adjoined position being a rather low one, and that possibly all adjunction that targets such a low position has A properties. This seems to me to be a prediction that can be tested and relatively easily falsified.

(23)

TP
- DP
- T'
  - T
  - vP
    - DP
    - v'
      - v
      - ApplP
        - OBL
        - Appl'
          - Appl
          - VP
            - DP(ACC)
            - V'
              - V
              - OBL

(24)

TP
- DP
- T'
  - T
  - vP
    - DP
    - v'
      - v
      - vP
        - OBL
        - v'
          - v
          - VP
            - DP(ACC)
            - V'
              - V
              - OBL
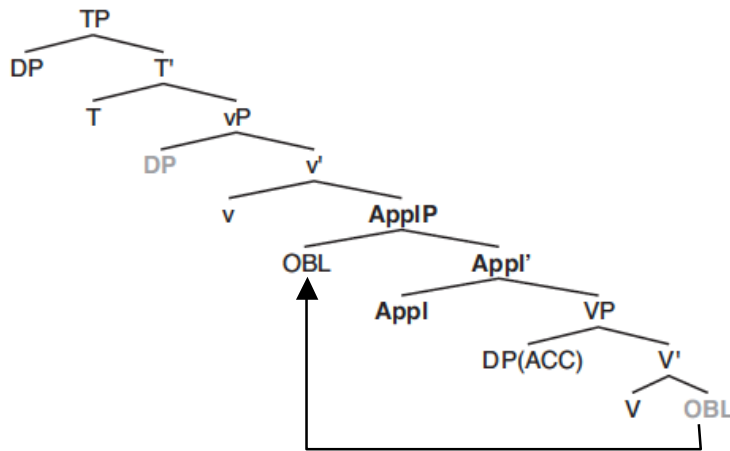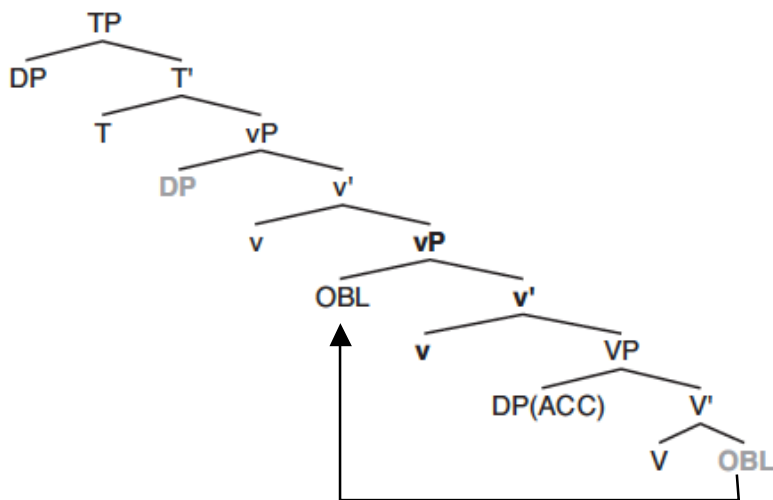
Note that the only difference between the two structures is in how the applicative node is labeled (Appl vs vP), in all relevant respects the structures are otherwise identical and as such make the same predictions. Thus, with respect to our Agent-oriented adverbs, both structures predict that the only order available should be ADV > OBL. As we have just observed, this prediction is supported by the data, so the Applicative structures in (23) and (24) fare equally well with respect to the data as the non-applicative, adjunction structure in (20).

Clearly, the two types of accounts are distinct in spirit and in their assumptions. The adjunction analysis, as already noted, is essentially a scrambling analysis, with Scrambling being a non-feature driven, arguably free operation licensed by information-

structural needs (Bailyn 1995). The applicative analysis, on the other hand, assumes that movement is driven by an edge feature, which requires the target of movement to raise to its Spec position and as such is an instance of motivated movement (Ormazabal and Romero (2010) and Larson (2014)). It remains to be seen if our predictions can be made fine-grained enough so as to choose between these two analyses. At this point, both types of analyses seem to fit the bill in terms of the data and the crucial assumptions my overall analysis of scope freezing is based on. Thus, in Chapter 3, I have argued that the overt movement that the lower QP undergoes to a position above the structurally higher one is most likely a type of Topicalization. This claim happens to be in line with both the adjunction/scrambling analysis and the Applicative analysis (with virtually all pragmatic/functional studies of these constructions arguing for their high Topicality status). Thus, at this point at least, choosing between the two types of analyses seems to be a matter of personal preference/conviction, rather than being required/justified by the data at hand.

4.3.2 Possible Structures for Group 2 Predicates

With Group 2 predicates we know from the SF Generalization that OBL > ACC is the basic word order. This yields two broad possibilities: either NP (ACC) is what it appears to be – a low direct object – or it isn't. A low direct object projected under an oblique would give the structure fundamentally that of an applicative under the non-derivational approaches of Marantz (1993), Pylkkanen (2000), (2002), McGinnis (2001) i.a. This means one would need to adopt both a derivational approach to applicatives (for the Group 1 cases) and a non-derivational approach for the Group 2 cases. While possible, this seems conceptually undesirable. But if NP (ACC) is not a direct object, what could it be?

Russian exhibits sentences of the form NP V OBL [PP P NP (ACC)], where the low Accusative object occurs inside a PP, getting its case from an overt preposition. This possibility suggests that our scope frozen cases of the form NP V [NP (ACC)] OBL might be derived from a structure where [NP (ACC)] originates below the Oblique argument and is of the form [PP P NP (ACC)], with a null P head assigning Accusative case to what only appears to be a low direct object. The key question in resolving whether Group 2 predicates are better amenable to Marantz-style analysis or to the latter, silent PP style analysis will then revolve around determining the status of this NP (ACC).

In what follows I will argue for the silent PP analysis, according to which DP (ACC) is inside a null PP (the assumption will be justified a bit later in the section). Given this analysis, with respect to structural possibilities, the same derived structures seem to be most appropriate, given my assumptions, as with the Group 1 cases. That is:

(25)   (a) [PP P DP(ACC)] can be taken to raise over OBL and adjoin to VP
         (b) [PP P DP(ACC)] can be taken to raise over OBL to the Spec of ApplP or vP.

As was just argued above, there seems to be no a priori reason to choose one of these two possibilities over the other one without any additional evidence for Group 1. Assuming we would want our analyses of the two Groups to be as parallel as possible, to the extent it is justified by the data, at this point in the discussion there seems to be no way to choose between (25a) and (25b) as an analysis of Group 2 verbs.

So let us turn to the rather crucial assumption mentioned above, namely that the Accusative argument in all Group 2 cases is in fact inside a PP, with the null P head assigning Accusative case to it. This assumption is virtually forced on us, given the SF Generalization: the scope freezing on the DAT (ACC) > OBL word order means that this order is in fact derived from (26):

(26) V   NP (ACC) NP-OBL   **NP (ACC)**   DERIVED ORDER (frozen)

             _____/

Assuming that the direct object is projected in base structure in such a low position, below the Oblique argument, is a rather non-standard assumption, which would be quite difficult to defend. Treating the structurally lower Accusative as being generated inside a PP with a null head assigning it case essentially means that what we have is a double oblique structure, and so the low position of this PP, with the Accusative object inside it, is nothing unorthodox. What we do have to worry about, however, is whether this low Accusative shows the kinds of properties that we would expect of it, namely whether it would behave as a non-object, in fact. As it happens, there is enough empirical evidence supporting this conclusion, demonstrating that the Accusative objects of Group 2 verbs have strikingly different properties from those possessed by the Accusative direct objects belonging to Group 1. Consider the evidence.

4.3.2.1 Distributive-po test

Pesetsky (1982) noted that direct objects of transitive predicates and subjects of unaccusative predicates may appear as objects of distributive *po*, while subjects of transitive and unergative predicates typically may not. The distributive *po* test appears to

be quite informative when applied to the three groups of verbs under discussion[112]: it underscores that the Group 2 predicates make up a separate class, distinct from the Group 1 predicates. Thus, we see that while Accusative objects of Group 1 verbs routinely appear as objects of distributive *po*, the Accusative objects of Group 2 verbs all fail this test.

Group 1:

(27) a. Maša potrebovala [kakie-to dokumenty] (s každogo posetitelja) (amb)
Masha demanded [some documents] (ACC) [from every visitor] (GEN)
'Masha demanded some documents from every visitor'
b. Maša potrebovala (s kakogo-to posetitelja) [každyj document]   (frozen)
Masha demanded [from some visitor] (GEN) [every document] (ACC)
'Masha demanded every document from some visitor'
c. √ Maša potrebovala [**po** documentu] [s každogo posetitelja]
'Masha demanded [**po** document] (DAT) [from each visitor'] (GEN)
'Masha demanded one document (each) from every visitor'

(28) a. Maša napisala [kakoj-to kommentarij] (k každoi fotografii)   (amb)
Masha wrote [some comment] (ACC) [PP to every photograph] (GEN)
'Masha wrote some comment to every photograph'
b. Maša napisala (k kakoi-to fotografii) [každyi kommentarij]   (frozen)
Masha wrote [PP to some photograph] (GEN) [every comment] (ACC)
'Masha wrote every comment to some photograph'
c. √ Maša napisala [**po** kommentariju] [k každoi fotografii]
 Masha wrote [**po** comment] (DAT) [to every photograph] (GEN)
'Masha wrote a comment to each photograph'

Group 2:

(29) a. Maša obozvala (kakim-to prozviščem) [každogo malčika]   (amb)
Masha called [some nickname] (INSTR) [every boy] (ACC)
'Masha called every boy by some nickname'
b. Maša obozvala [kakogo-to malčika] (každym prozviščem)   (frozen)
Masha called [some boy] (ACC) [every nickname] (INSTR)
'Masha called some boy by every nickname'
c. *Maša obozvala [po malčiku] [každym prozviščem]
Masha called [po boy] (DAT) [every nickname] (INSTR)
'Masha called each boy by a nickname'

---

[112] For now I will only discuss the behavior of Group 1 and 2 verbs, noting only that in general, Group 3 verbs pattern together with Group 1 verbs in virtually every respect. For more tests, not discussed in this Chapter, see Appendix 1.

(30) a. Maša obidela (kakim-to priznanijem) [každogo druga]   (amb)
      Masha insulted [some confession] (INSTR) [every friend] (ACC)
      'Masha insulted every friend with some confession'
      b. Maša obidela [kakogo-to druga] (každym priznanijem)   (frozen)
      Masha insulted [some friend] (ACC) [every confession] (INSTR)
      'Masha insulted some friend with every confession'
      c. *Maša obidela [po drugu] [každym priznanijem]
      Masha insulted [po friend] (DAT) [every confession] (INSTR)
      'Masha insulted one friend (each) with every confession'

4.3.2.2 Genitive of Negation Test

Pesetsky (1982) also argued that Genitive of Negation can be used as a reliable test for
unaccusativity in Russian. Applying this test to our data we again see a clear dichotomy
between Group 1 predicates on the one hand and Group 2 predicates on the other[113].

Group 1:
(31) a. Maša potrebovala [kakije-to dokumenty] (s každogo posetitelia) (amb)
         Masha demanded [some documents] (ACC) [from every visitor] (GEN)
         'Masha demanded some documents from every visitor'
      b. Maša potrebovala (s kakogo-to posetitelia) [každyi document]   (frozen)
         Masha demanded [from some visitor] (GEN) [every document] (ACC)
         'Masha demanded every document from some visitor'
      c. √ Maša ne potrebovala fotografii
         Masha not demand photograph (GEN)
         'Masha did not demand a photograph'

(32) a. Maša napisala [kakoi-to kommentarij] (k každoi fotografii)   (amb)
         Masha wrote [some comment] (ACC) [to every photograph] (GEN)
         'Masha wrote some comment to every photograph'
      b. Maša napisala (k kakoi-to fotografii) [každyi kommentarij]   (frozen)
         Masha wrote [to some photograph] (GEN) [every comment] (ACC)

---

[113] For the purposes of this test, I have changed the direct object to a feminine one (due to
Accusative-Genitive syncretism in the masculine) as well as used a non-quantificational object
since the Genitive of Negation has its own semantic and discourse restrictions that could interfere
with it (Bailyn, p.c.) See Babyonyshev (1996), Bailyn (1997), Brown (1999), and Babby (2000),
Partee and Borschev (2004 a,b), Partee et al. (2011) i.a. for the discussion of the syntax and
semantics of the construction.

'Masha wrote every comment to some photograph'
　　c. √ Maša ne napisala zapiski
　　　Masha not write PST note (GEN.FEM)
　　　'Masha did not write a note'

Group 2:

(33)　a. Maša obozvala (kakim-to prozviščem) [každogo malčika]　　　(amb)
　　　　Masha called [some nickname] (INSTR)　[every boy] (ACC)
　　　　'Masha called every boy by some nickname'
　　b. Maša obozvala [kakogo-to malčika] (každym prozviščem)　　　(frozen)
　　　　Masha called [some boy] (ACC)　[every nickname] (INSTR)
　　　　'Masha called some boy by every nickname'
　　c. * Maša ne obozvala devočki
　　　　Masha not call_{PST} (by a nickname/bad name) girl (GEN.FEM)
　　　　'Masha did not insult a girl'

(34)　a. Maša obidela (kakim-to priznanijem) [každogo druga]　　　(amb)
　　　　Masha insulted [some confession] (INSTR)　[every friend] (ACC)
　　　　'Masha insulted every friend with some confession'
　　b. Maša obidela [kakogo-to druga] (každym priznanijem)　　　(frozen)
　　　　Masha insulted [some friend] (ACC)　[every confession] (INSTR)
　　　　'Masha insulted some friend with every confession'
　　c. */?? Maša ne obidela podrugi
　　　　Masha not insult_{PST} girlriend (GEN.FEM)
　　　　'Masha did not insult a girlfriend'

The tests we have just reviewed strongly suggest that the direct objects of Group 1 predicates behave like true objects (i.e., originate in the direct object position), while the supposed "direct objects", or rather, the Accusative-marked objects of Group 2 predicates behave as if they originate in a different position that does not possess properties expected of true direct objects. This is of course in line with the proposal that the Accusative-marked objects of Group 2 verbs originate low, inside a PP whose null head assigns the Accusative case.

Regarding the structural possibilities themselves, as was already noted, they appear to be quite similar to those available for Group 1 verbs:

(35)　(a) [PP P DP (ACC)] can be taken to raise over OBL and adjoin to VP
　　　(b) [PP P DP (ACC)] can be taken to raise over OBL to the spec of ApplP or vP.

For the sake of being consistent, it seems, if one chooses option (a) above for Group 1

verbs, one should choose option (a) for Group 2 verbs as well (or vice versa), provided there is no direct evidence to the contrary. Thus, at this point I think it remains possible to argue for either type of analysis for both Group 1 and Group 2 verbs. Thus, for instance, in terms of the Agent-oriented adverbs, the two Groups behave alike, which means analyses requiring high adjunction with concomitant v-to-T raising are highly unlikely:

(36) a. Maša special'no   obozvala   [vrednogo malčika] (nexorošim slovom)
     Masha purposefully called   [capricious boy] (ACC) [bad word] (INSTR)
     'Masha purposefully called a capricious boy with a bad word'

     b. *Maša obozvala [vrednogo malčika] special'no   (nexorošim slovom)[114]
     Masha called   [capricious boy] (ACC) purposefully [bad word] (INSTR)
     'Masha purposefully called a capricious boy with a bad word'

The only consideration that comes to my mind, which may play a role in choosing between the analyses is the fact that with all Group 2 predicates the Accusative object is always interpreted as being *affected*[115]. Such *affectedness* interpretation is decidedly lacking with Group 1 predicates (or Group 3 predicates, for that matter, which in many respects pattern with Group 1). This, I believe, may be just the consideration we need for choosing between the structures. Thus, on such semantic grounds alone, I would tentatively suggest that the adjunction analysis (basically, the analysis of ditransitives proposed in Bailyn (1995), (2012)) should be chosen for Group 1 predicates, whereas the applicative analysis in the spirit of Larson (2014) is probably the more appropriate analysis for the Group 2 predicates. Given these considerations, the structure of a sentence such as (37a) would be something like (38), where the sentence contains two oblique complements (a DP and a PP).

(37) a. Maša   ugostila   (kakim-to pečenjem) každogo rebenka   (amb)
     Masha   treated   [some cookie] (INSTR) [every child] (ACC)
     'Masha treated every child to some cookie'

     b. Maša   ugostila   [kakogo-to rebenka] (každym pečenjem) (frozen)
     Masha   treated   [some child] (ACC)   [every cookie] (INSTR)
     'Masha treated some child to every cookie'

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[114] There is an unrelated reading on which the sentence is grammatical. It is one on which what is deliberate is not the act of name-calling but the choice of the word. Unless I'm mistaken on this, this possibility has no bearing on our considerations in terms of the structural possibilities available to us with Group 2 verbs. The same possibility of an alternative, unrelated interpretation exists with Group 1 verbs discussed above in this context.

[115] I will loosely define *affectedness* here as a persistent change in an event participant. For a detailed discussion of the notion of *affectedness* and a proposal regarding its formal definition see Beavers (2011).

(38)

vP
- DP
  - Masha
- v'
  - treat
  - VP
    - DP
      - some cookie(INSTR)
    - V'
      - treat
      - PP
        - P
        - DP
          - every child(ACC)
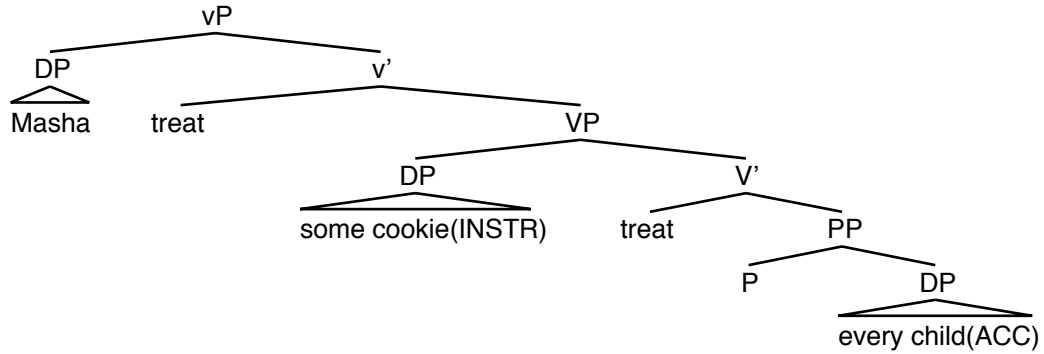
The frozen order would then be derived by fronting the PP, either left-adjoining it to VP as in (39), or by moving it to the spec of a small v voice head, as discussed for the movement analysis of applicatives (40)[116].

(39)

vP
- DP
  - Masha
- v'
  - treat
  - VP
    - PP
      - P
      - DP
        - every child(ACC)
    - VP
      - DP
        - some cookie(INSTR)
      - V'
        - treat
        - PP
          - P
          - DP
            - every child(ACC)

(40)

vP
- DP
  - Masha
- v'
  - treat
  - vP
    - PP
      - P
      - DP
        - every child(ACC)
    - v'
      - treat
      - VP
        - DP
          - some cookie(INSTR)
        - V'
          - treat
          - PP
            - P
            - DP
              - every child(ACC)

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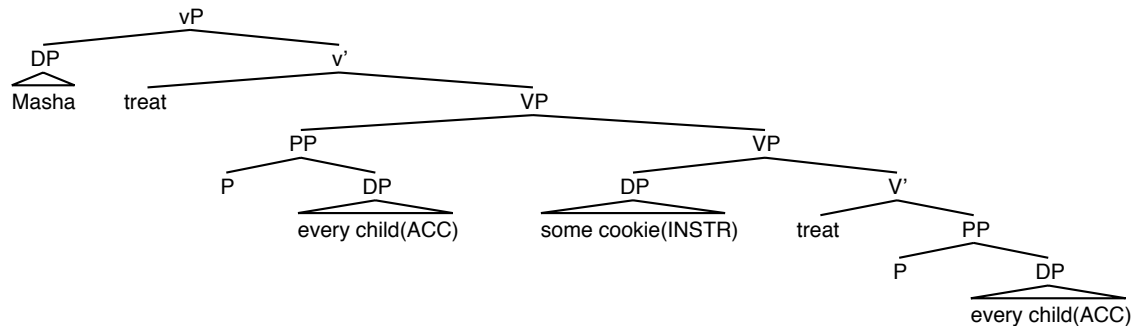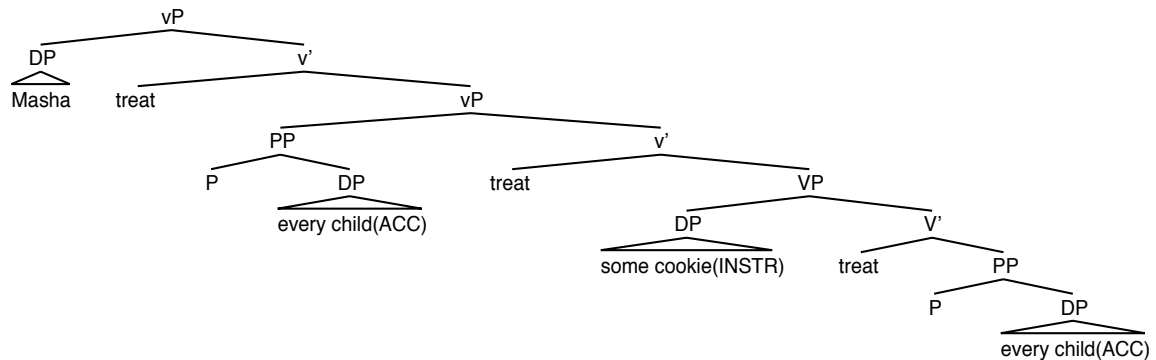
[116] In both (39) and (40) the lower PP copy is of course taken to be silent.

Incidentally, there is further important evidence for the proposal advanced here that Group 2 predicates involve what are essentially two oblique phrases. Consider (41)[117]:

(41)   a. Maša   pobesedovala (na kakuju-to temu) [s každym drugom]   (amb)
            Masha talked [PP on [some topic] (ACC)] [PP with [every friend] (INSTR)]
            'Masha had a conversation on some topic with every friend'

        b. Maša pobesedovala [s kakim-to drugom] (na každuju-to temu)   (frozen)
            Masha talked [PP with [some friend] (INSTR)] [PP on [every topic] (ACC)]
            'Masha had a conversation with some friend on every topic'

The example in (41) contains a ditransitive predicate with two overt quantificational PPs, with one of those Ps governing Accusative case. Thus, this example is fully analogous to what I suggest for Group 2 predicates, the only difference here being that the preposition governing Accusative is overt in (41) but covert in all the other cases we've seen in this section[118].

        Finally, the strongest piece of support for the proposal that there is in fact a null P, assigning Accusative in a low position in Group 2 cases is examples such as (42):

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[117] Another example of this sort is (i). Here the ditransitive predicate 'uslyšala' ('heard') selects for two oblique argument phrases, a Prepositionally-marked PP and a PP containing an Accusative-marked phrase:

(i.)   a. Maša uslyšala [o kakom-to sobytii]   (ot každoj podrugi)   (amb)
            Masha heard   [PP about [some event] (PREP)] [PP from [every girlfriend] (ACC)]
            'Masha heard about some event from every girlfriend'
        b. Maša uslyšala (ot kakoj-to podrugi)   [o každom sobytii]   (frozen)
            Masha heard   [PP from [some girlfriend] (ACC)] [PP about [every event] (PREP)]
            'Masha heard from some girlfriend about every event'

Using the SF Generalization as a diagnostic, we have to conclude that the underlying word order is the one where the PP containing the Accusative-marked argument originates in a structurally lower position, thus yielding further indirect support for the proposal that Group 2 predicates that superficially look like they select for a low Accusative-marked object in fact select for a concealed PP the null head of which assigns the Accusative case.

[118] In English as well, as noted by Richard Larson (p.c.), at least some outer nominals in ditransitives are arguably null P objects. **Emonds (????)** argued this regarding (ia), which he analyzed as in (ib), comparing it to the synonymous (ic):

(ia) Max awarded Bill [the prize]
(ib) Max awarded Bill [P the prize]
(ic) Max awarded Bill [with the prize]

(42) a. Maša porugala (za kakuju-to ošibku) [každogo druga]　　　　(amb)
　　　Masha scolded [PP for [some mistake] (ACC)] [every friend] (ACC)
　　　'Masha scolded every friend for some mistake'

　　b. Maša porugala [kakogo-to druga] (za každuju ošibku)　　　　(frozen)
　　　Masha scolded [some friend] (ACC) [PP for [every mistake] (ACC)]
　　　'Masha scolded some friend for every mistake'

　　c. Maša porugala [kakogo-to druga^j] (ACC) (za každuju <ošibku, f(j)>) **t**[*kakogo-to*
druga^j] (ACC)　　　　　　　\＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿／

What is very interesting about this example, and of utmost importance for the structural analysis advanced here, is the following: this ditransitive verb 'porugala' ('scolded') selects two Accusative-marked objects, one Oblique, occurring inside an overt Prepositional Phrase and one which looks like a regular direct object Accusative. However, the scope pattern that we find with this pair of examples, specifically the frozen scope status of (42b), suggests that (42b) is the *derived* order, that is, what looks like the regular direct object Accusative must have originated below the Accusative that is inside the PP. This, of course, on my analysis entails that the "regular" direct object Accusative in (42b) is in fact a concealed low Accusative, which originates inside a null PP and gets its case from a null P head. This, to me, seems like the strongest possible evidence in support of the hypothesis that the null P assigns low Accusative in Group 2 verbs. Accordingly, the above "regular" Accusative does not do so well on the objecthood tests we carried out before:

Ability to occur inside a distributive *po*-phrase:

(43) ??/*Maša porugala **po** drugu za každuju ošibku
　　　Masha scolded PO [friend] (ACC) [PP for [every mistake] (ACC)]
　　　'Masha scolded one friend for each mistake'

Genitive of Negation Test:

(44)　　*Maša ne porugala podrugi
　　　Masha not scold**PST** girlfriend (GEN.FEM)
　　　'Masha did not scold a girlfriend'

Therefore, I believe we have a rather strong case in arguing that the base-generated structure of Group 2 predicates is as suggested: we are dealing with double Oblique structures, with what looks like a direct object Accusative in fact originating lower than the other Oblique argument, inside a null PP, the null head of which is the Accusative case assigner. The applicative structure as suggested in Larson (2014) seems to be an

appropriate representation for the Group 2 verbs in this respect, in that all Group 2 predicates show a strong *affectedness* interpretation of their Accusative objects, which is in stark contrast with the Accusatives of Group 1 and Group 3 verbs, which do not.

4.3.3 Possible Structures for Group 3 Predicates

Group 3 predicates are quite different from both Group 1 and Group 2 in that either order of internal arguments results in free/ambiguous scope. Given the SF Generalization and the resulting derivational approach to ditransitives' argument structure, for quite a while I believed that the free scope in Group 3 ditransitives must entail that the two orders of internal arguments are not derivationally related, that they are independently projected. Richard Larson (p.c.) pointed out to me that this is not the only way to view the situation, of course. Specifically, on the assumption that freezing is produced as long as the quantifier that does the overt crossing c-commands the other one post-movement, there are two distinct possibilities to consider:

(45)   (a) Scope ambiguity is due to the structure being underived, with no overt movement.
(b) Ambiguity results from a derived structure where the c-command condition is not met post-movement.

Thus, we have at least these two possibilities to consider[119]. Let us discuss them both in order.

4.3.3.1 Independent Derivation

There are plausible cases of independent derivation known from English, such as (46):

(46)   a. Job blamed [God] [for his troubles]   (Larson 1990)
b. Job blamed [his troubles] [on God]

What makes these good candidates for independent derivation is the fact that along with the change in the order of the two internal arguments, there is also clearly a change in grammatical relations, with 'God' being a DO in (46a) but an oblique in (46b). As noted by Richard Larson (p.c.), the corresponding examples with quantificational phrases are both ambiguous, as should be expected under my analysis:

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[119] A distinct third possibility, suggested by the results in Chapter 3 regarding the lack of scope freezing with Russian OVS sentences (and possibly passives as well), is that although the overtly raised QP ends up in a c-commanding position post-movement, the movement itself is not of the kind required for freezing, that is, the QP is "smuggled" to its high position inside a larger piece of structure. We have seen that, given the remnant VP movement analysis of OVS sentences, the lack of scope freezing in such sentences follows if overtly moving a single QP across another QP is what is required for freezing to obtain.

(47)   a. John blamed some employee for every mistake. ∃∀,∀∃
        b. John blamed some mistake on every employee. ∃∀,∀∃

Native speakers apparently also perceive an additional semantic distinction between these, as well, with (47a) being notationally related to (48a), and (47b) being related to locatives, as in (48b):

(48)   a. John thanked some employee for every success.
        b. John gave/offered thanks to some employee for every success.

The fact that the thematic roles involved in the two alternations are different in the above cases supports the idea that they are not derivationally related. This poses a problem for my initial analysis of Group 3 ditransitive alternations as derivationally unrelated, since in none of them can a parallel difference in thematic roles be detected. The only differences detected seem to be related to the informational status of the two internal arguments, with their thematic roles always staying the same. Thus, it is worth considering other alternatives.

4.3.3.2 Derived Orders for Group 3 Predicates

On the "derived orders" analysis of Group 3 predicates there are again two options to consider. Consider the English pair in (49):

(49)   a. John gave [a cute little puppy] [to Mary].
        b. John gave [to Mary] [a cute little puppy].

These are closer to our Russian examples in that there is no change in thematic roles in the two alternants. The analyses offered for such sentences in English have been quite distinct, in particular such examples have been analyzed either as instances of Heavy NP Shift, whereby the order in (49b) is derived via rightward movement of the "heavy" object, with adjunction at either VP (50a) or vP level (50b):

(50)

a.
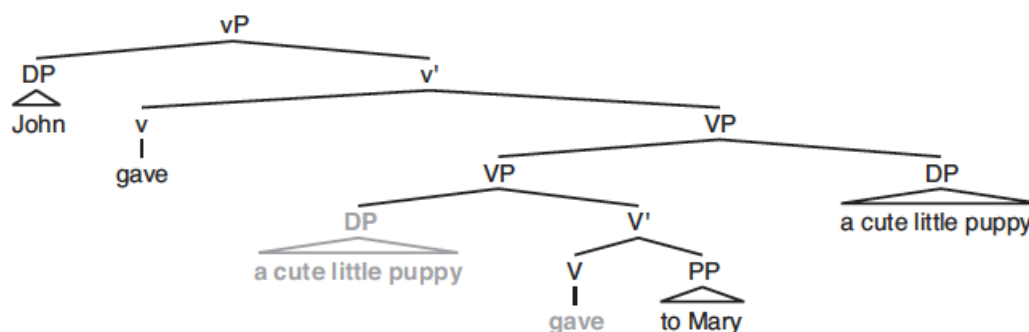
b.
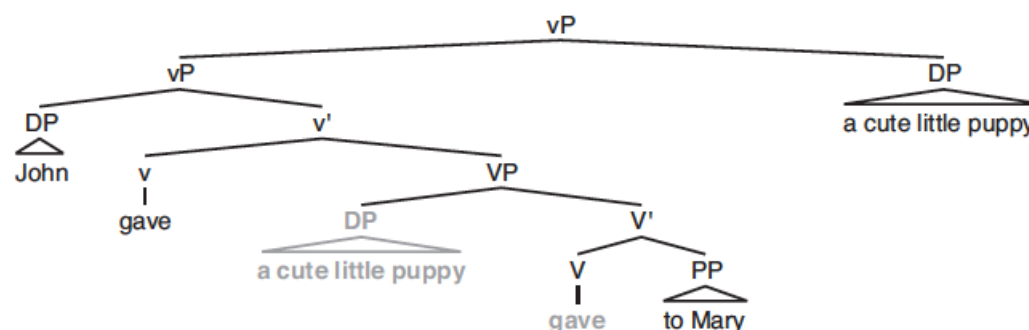
One very important fact to note about Russian scope freezing data, however, is that of the three Groups of ditransitives that have been identified, there is none where both orders would be scopally frozen[120]. On the proposed analysis, according to which the special Relation $\Re$ is established between the two QPs at the point when the lower QP overtly raises over the higher one, the notion of c-command becomes crucial. Thus, the QP, which overtly crosses the previously structurally higher QP has to c-command it in overt syntax, in order to be able to bind a variable inside it (thus accounting for the inability of the now lower QP to QR above the one that is binding a variable inside it or undergoing reconstruction to its thematic (or possibly a different, higher) position). This crucial assumption then immediately eliminates Heavy NP Shift as a possible analysis of our Group 3 verbs since in both (50a) and (50b) the rightward shifted phrase will c-command the other one, which, on my assumptions, would lead to frozen inverse scope – exactly one Group that is completely unattested by the data. The expectation is not borne out in

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[120] This, of course, accords well with the conception of scope freezing as a derived phenomenon.

English, either; thus, Larson (p.c.) finds (51a) to be inverse-scope frozen and (51b) ill-formed, both contrary to fact[121]:

(51)   a John gave [to some acquaintance] [every CD in his collection].
       b. John gave [to every classmate] [a different picture of their teacher].

Thus, to the extent that Russian scope data presented in this thesis can be viewed as accurately representing the scope possibilities attested in Russian, they argue quite strongly against adopting the Heavy NP Shift (HNPS) Analysis of the Group 3 predicates.

The other possibility, laid out in Larson (1989) is the Light Predicate Raising (LPR) Analysis. On this analysis, the structure of (49b) would be as in (52):

(52)
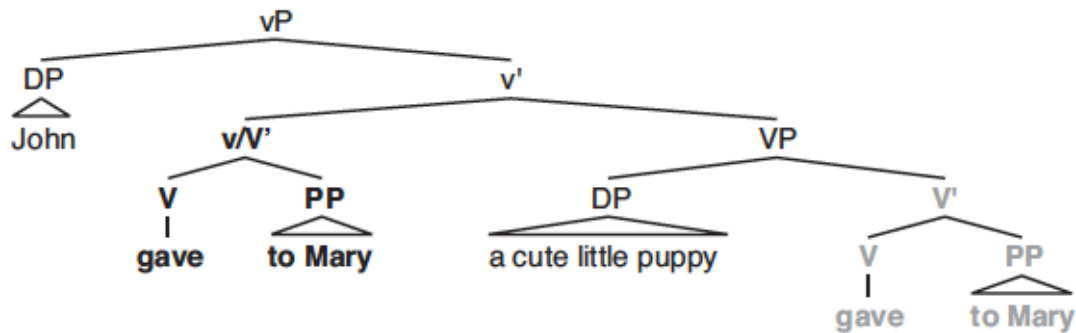
What is crucially important in relation to my analysis, is that LPR configuration does not lead to a situation where the raised PP/DP is able to c-command the other phrase, by virtue of the interfering v/V' node. To demonstrate with a Russian example (16) with quantifiers, repeated here as (53), we will get te following configuration (54):

(53)   a. Maša   napisala [kakoj-to slogan]   (na každoj stene)   (amb)
          Masha   wrote   [some slogan] (ACC) [PP on every wall] (PREP)
          'Masha wrote some slogan on every wall'
       b. Maša   napisala (na kakoj-to stene)   [každyj slogan]   (amb)
          Masha   wrote   [PP on some wall] (PREP)   [every slogan] (ACC)
          'Masha wrote every slogan on some wall'

(54)

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[121] (51b) would be expected to be bad since "a different picture" requires the universal QP to have scope over it, and given the high c-command position of the "different" phrase on HNPS analysis, that possibility should be unavailable.
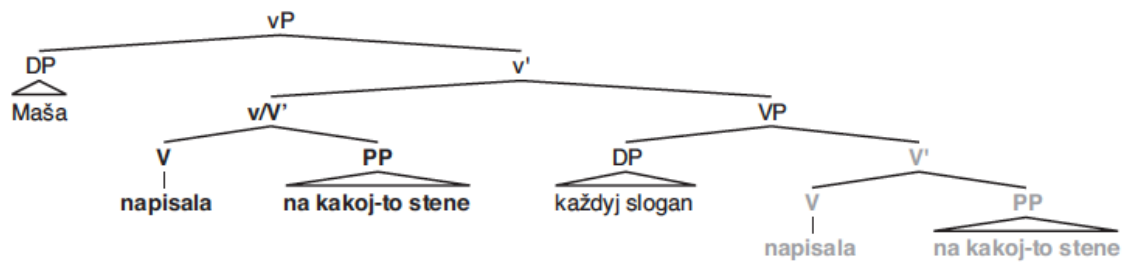
Such an analysis appears to be rather promising, given that both alternations in all Group 3 cases such as those presented in (53) are scopally ambiguous, truth-conditionally identical and do not show any change in thematic relations or in case relations upon alternation[122].

Finally, yet another possibility, sketched in footnote 18, is suggested by our treatment of (scopally ambiguous) OVS sentences and passives. It may be that the above reasoning about (49) is not correct. As suggested by the OVS sentences, it may be that in (50) the direct object does **not** in fact "cross over" the indirect object in the sense we concluded was crucial for the SFG. The crucial sense seems to be the following:

(55)   X **crosses over** Y as a result of movement M iff
        (a) Y c-commands X before M applies
        (b) X c-commands Y after M applies

As seen from the trees, in (50) the direct object c-commands the indirect object both before and after movement. Hence the former doesn't cross over the latter in the relevant sense. The prediction is thus that HNPS should <u>not</u> freeze scope. In other words, both analyses in (50) <u>and</u> (52) predict no scope freezing, although for different reasons. The above reasoning is based on the fact that the direct object <u>does</u> cross over the indirect object in terms of linear order. But if the explanation of scope in OVS sentences is correct, it strongly suggests that linear order is not the relevant notion here[123].

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[122] Another, rather indirect piece of evidence in support of the derivational analysis of Group 3 verbs, in my opinion, is the otherwise puzzling fact that despite both alternations being ambiguous, scope judgments are very often easier on one of the two possible orders of internal arguments, as if it were the "basic" one. As discussed in the Appendix at length, while scope judgments are usually very clear with Group 1 and especially with Group 2 verbs, with Group 3 verbs, numerous additional tests had to be carried out in order to become convinced the "other" alternant is not in fact frozen.

[123] Note that the definition in (55) mentions "movement" and not "derivation". A movement is a single instance of internal merge. A derivation is a set of such instances. In OVS sentences, as a result of a **derivation**, a QP that was c-commanded by another ends up c-commanded by it (we move VP over the subject, and then raise the object out). But no single <u>movement</u> has this effect.

4.4 Outstanding Questions

In providing the analysis of scope freezing in Chapter 3 in terms of a relation ℜ established directly between the two Quantifier Phrases, I have tentatively suggested that the instance of the overt movement that the lower QP undergoes to a position from which it can c-command the previously higher QP is akin to Topicalization. The immediate question to ask in this respect is what happens when the movement is not Topicalization, but Focalization, a contrastive focus movement, for instance. The issue of contrastive focus and its interaction with scope and scope freezing is discussed at length in the Appendix. I have found that applying contrastive focus to the structurally lower QP determiner can significantly sharpen the judgments in those cases where the freezing/ambiguity status of the example was not fully clear. To summarize that discussion briefly, where there is only a preference for surface scope but not a requirement that scope be confined to that determined by c-command, focus forces wide scope for the contrastively focused (lower) argument; where scope is indeed frozen, contrastive focus on the lower object cannot "free" scope in this way. Thus, contrastive focus on the lower object appears to provide a reliable test for frozen surface scope in Russian ditransitives. In light of the above discussion about this overt movement in freezing contexts being an instance of Topicalization, it is interesting what happens to the structurally higher QP in frozen scope contexts when this QP is contrastively focused.

While the test does not seem to provide any interpretable information when the higher object is *kakoj-to* (some) NP, when a different existential QP is used, such as *dve/dva* (two) NP, the resulting interpretation, it seems, is not one where scope is at issue; instead, it is one where the number expressed by the quantifier is at issue:

(56) a. Maša zagruzila   [**DVE** programmy]   (na každyi kompjuter)
    Masha uploaded   [two programs] (ACC) [PP on every computer] (ACC)
    'Masha uploaded TWO (rather than three or five) programs to every computer'

   b. Maša zagruzila   (na **DVA** kompjutera) [každuju programmu]
    Masha uploaded [PP on two computers] (ACC) [every program] (ACC)
    'Masha uploaded every program to TWO computers (rather than five)'

This makes scope judgments in such contrastive focus context much more difficult; however, I believe the result is the opposite of that obtained above. Specifically, it appears that when the first object is focused, the second object is interpreted as being presupposed, that is, in (56a) the exact interpretation is something like: for each of the computers under discussion, Masha uploaded TWO (rather than five) programs to it. For (56b), the interpretation appears to be: For each program, Masha uploaded it to TWO

(rather than five) computers. Given this result, the most important question is what interpretation obtains in frozen surface scope contexts. Although the scope judgments on (57b) are somewhat difficult, I believe the sentence can be interpreted as *ambiguous* between the two interpretations provided below. However, the second interpretation, which is at issue, seems to me to possibly arise due to pragmatics rather than syntax: the lower object is interpreted as presupposed, giving rise to the interpretation where for every cookie in some set under discussion, it was given to a number of boys, and what is at issue here, is the exact number of boys (namely that there were two of them).

(57) a. Maša ugostila   (**DVUMJA** pečenjami)   [každogo rebenka]
         Masha treated   [two cookies] (INSTR)   [every child] (ACC)
         'Masha treated every child to TWO (rathern than five) cookies'

     b. Maša ugostila   [**DVUX** mal'čikov]   (každym pečenjem)
         Masha treated   [two   boys] (ACC)   [every cookie] (INSTR)
         'It's TWO boys (rather than five) that Masha treated to every cookie'
         'For every cookie, Masha treated TWO (rather than five) boys to it'

This results seems to further support the intuition that the overt movement involved in frozen scope contexts is indeed akin to Topicalization.

CHAPTER 5. CONSEQUENCES OF THE PROPOSED ACCOUNT OF RUSSIAN QP SCOPE AND SCOPE FREEZING

5.1 Consequences of Russian Non-Rigidity for Russian Syntax and Beyond

In the previous chapters we have discussed a wide range of empirical data strongly suggesting that Russian is indeed a non-rigid language in what concerns quantifier scope, and we have seen that in this respect it is not very different from English. In fact, a number of striking similarities between the two languages that extend all the way to scope freezing found in English and Russian ditransitives have been discussed in this thesis suggesting that quantifier scope *and* scope freezing should indeed be analyzed along parallel lines in these languages. The conclusion to be drawn at this point is that Russian is a scope-fluid language that makes extensive use of the covert movement operation QR which is constrained in exactly the same ways as in English. Ionin's (2001) pioneering work on Russian scope with which I share certain important insights, but which I have argued is crucially mistaken regarding the unavailability of non-local QR, has been very influential in the field of Russian syntax. A number of works have uncritically accepted Ionin's claims about Russian being a surface-scope only type of language which led to arguably mistaken conclusions being drawn about various aspects of Russian syntax that are currently found in the literature. In the initial sections of Chapter 5 I review two such studies involving Superiority, and the erroneous conclusions that have resulted. Discussing Superiority here is also important in that it is the basis of one of the most influential analyses of scope freezing found in English, namely Bruening (2001), which I will turn to in more detail later in the chapter. I then turn to the strikingly parallel scope freezing facts found in Japanese, discuss an account of these facts (Larson and Harada (2011)) and the predictions that account seems to make that I then test against Russian scope freezing data. The predictions do not appear to be fully supported by the data, suggesting that for Russian at least a parallel account of scope freezing in terms of Cyclic Linearization as proposed in Larson and Harada (2011) should not be adopted. I conclude the chapter by reviewing the details of and arguing against another influential account of quantifier scope and scope freezing distribution, Bobaljik and Wurmbrand (2012). The account, which the authors intend to have significant cross-linguistic explanatory power and which makes very clear predictions for Russian is shown to be falsified by the data presented in this thesis.

5.1.1 Grebenyova (2006)

Superiority effects, observed in English sentences like (1), appear to be absent in Russian counterparts like (2), from Stepanov (1998):

(1) a. **Who** loves **who(m)**?

     b. *__Whom__ does **who** love?

     c. I don't know **who** loves **who(m)**.

     d *I don't know **who(m)** **who** loves.

(2) a. **Kto$_1$**   **kogo$_2$**   [t$_1$ ljubit   t$_2$]?

      Who (NOM)   whom (ACC)   loves

      'Who loves whom?'

     b. **Kogo$_2$**   **kto$_1$**   [t$_1$ ljubit t$_2$]?

      Whom (ACC)   who (NOM)   loves

      'Whom does who love?

     c. Ja ne znaju [**kto**   **kogo**   ljubit]

      I not know who (NOM)   whom (ACC)   loves

      'I don't know who loves whom.'

     d. *Ja ne znaju   [**kogo**   **kto**   ljubit]

      I not know   whom (ACC) who (NOM)   loves

      'I don't know whom who loves'

Grebenyova (2006) observes, however, that effects very reminiscent of Superiority arise in Russian Sluicing constructions. Given the context in (3a), only the Superiority-observing sluice in (3b) is acceptable; the Superiority-violating sluice in (3c) is not[124]. Similarly for the embedded sluicing constructions in (4):

(3) a. A: Každyj   priglasil kogo-to   na tanec

       Everyone invited   someone to dance

       'Everyone invited someone to a dance.'

     b. B: Kto   kogo?

       Who (NOM)   whom (ACC)

     c. B: *Kogo kto?

(4) a. Každyj priglasil kogo-to na tanec,   no ja ne   pomnju   kto   kogo

      Everyone invited   someone to dance   but I not   remember who   whom

      'Everyone invited someone to a dance but I don't remember who (invited)

who.'

     b. *Každyj priglasil kogo-to na tanec, no ja ne   pomnju   kogo   kto

      Everyone invited someone to dance but I not   remember whom   who

Grebenyova (2006) proposes that the contrasts observed in (3) and (4) are not in fact due

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[124] There is disagreement regarding the data in the literature: Scott (2012) reports examples such as (3c) to be grammatical.

to Superiority but rather "follow from an independent property of elliptical structures, namely, quantifier parallelism". Following Fiengo and May (1994) and Fox and Lasnik (2003), Grebenyova (2006) adopts the notion of parallelism, which requires variables in the elided and antecedent clauses to be bound from parallel positions. Adopting Ionin's view of Russian as a scope rigid language, Grebenyova argues that only structure (5b) below will be possible as a representation for the sluice, since only its binding of variables parallels the LF representation for the sluice antecedent, represented in (5a). (5c) will not be possible because its binding is non-parallel to (5a).

(5) a. $\forall x$ $\exists y$ [**x** priglasil **y** na tanec]
                      invited   to dance   —Parallel
     b. kto **x** kogo **y** [**x** priglasil **y** na tanec]
         who   whom   invited   to dance   Non-Parallel
     c. kogo **y** kto **x** [**x** priglasil **y** na tanec]
         whom   who   invited   to tanec]

Based on this analysis, Grebenyova offers (6) as a potential cross-linguistic generalization regarding scope and sluicing:

(6)   **Grebenyova's Generalization:**
        Languages with fixed isomorphic scope will disallow free ordering of wh-phrases in sluicing structures.

The results in this thesis indicate, however, that sentences like (3a) and (4a) do have an inverse scope construal available in addition to a surface scope reading. Hence Grebenyova's prediction for the sluices in (3) and (4) is in fact more subtle than she represents. The correct prediction from parallelism should be this: to the extent speakers allow an inverse scope construal for (3a) and (4a), they should permit the contra-Superiority orderings in (3c) and (4b). To the extent that the inverse scope is inaccessible to speakers, the contra-Superiority orderings in (3c) and (4b) should be unacceptable to them as well.

In fact, even this refined prediction appears to be incorrect. Consider (7a) under the scenario provided. Despite the latter strongly favoring an inverse scope reading for (7a), Russian speakers do not report an improvement in the contra-Superiority sluice in (7b) versus the Superiority-preserving sluice in (7c). (7c) remains the only acceptable sluice:

(7)   Context: Ja slyšal, čto včera na večerinku prišla odna očen' populjarnaja osoba (pravda, ja ne znaju kto) – praktičeski vse parni pytalis' priglasit' jejo na tanec, tak čto ona protancevala ves' večer.
        I heard that yesterday there came some very popular person to the party (though I

don't know who) – virtually all guys tried to invite her to dance, so she danced all night:

a. Každyj   priglasil   kakuju-to devušku   na   tanec
   Everyone (NOM)   invited   some   girl (ACC)   to   dance
b. *Kogo   kto?
    Whom (ACC)   who (NOM)
c. Kto kogo?

These results strongly suggest that an account of the Russian wh-ordering facts in (3) and (4) in terms of parallelism is on the wrong track, and that a different account must be found.

Scott (2012) argues convincingly that the ordering restrictions observed in (3) and (4) are not merely reminiscent of Superiority effects – in fact they <u>are</u> Superiority effects. Scott shows, furthermore, that such effects are exhibited not only in sluicing constructions, but in other contexts as well, including constructions with an overt topic (8), in overt topic with particle –TO marking constructions (9), in embedded clauses (10), and in coordinated multiple WH structures (11): [125]
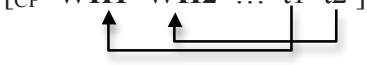
(8) a. Darii   **kto**   **čto**   posovetoval ?
        Daria (DAT)   who (NOM) what (ACC) advised
        'Who advised what to Daria?'
     b. *?Darii   **čto**   **kto**   posovetoval ?
         Daria (DAT) what (ACC) who (NOM) advised
         'Who advised what to Daria?'

(9) a. Darii-to   **kto**   **čto**   posovetoval ?
        Daria (DAT)   who (NOM) what (ACC) advised
        'Who advised what to Daria?'
     b. *Darii-to   **čto**   **kto**   posovetoval ?
         Daria (DAT) what (ACC) who (NOM) advised
         'Who advised what to Daria?'

(10) a. Maria sprosila,   **kto**   **čto$_i$**   posovetoval t$_i$ Darii?
        Maria asked   who (NOM) what (ACC) advised   Daria (DAT)
        'Maria asked who advised what to Daria?'

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[125] Note that these constructions, which exhibit wh-ordering facts parallel to those found with sluicing, do not involve quantifiers or quantifier scope, hence no issues of parallelism on binding should arise. This result casts further doubt on the account of Grebenyova (2006) insofar as the latter doesn't appear to generalize to the full range of cases where Superiority effects are observed.

b. *Maria sprosila, **čto$_i$** **kto** posovetoval t$_i$ Darii?
Maria asked what (ACC) who (NOM) advised Daria (DAT)
'Maria asked who advised what to Daria?'

(11) a. **Kto** i **kogo** obmanyvaet?
Who (NOM) and whom (ACC) deceives
'Who deceives and who (Who does s/he deceive)?'
b. ***Kogo** i **kto** obmanyvaet?
Whom (ACC) and who (NOM) deceives
'Who deceives and who (Who does s/he deceive)?'

Scott (2012) analyzes Russian as a 'true' *wh*-movement language, similar to Bulgarian in the sense of Rudin (1988), with a strong [+wh] feature on each *wh*-phrase, forcing it to be in the specifier of CP. Crucially, Scott proposes that the effects of Superiority are masked in many contexts in Russian by the presence of a High Operator Phrase Position (HopP) to which any wh-phrase can raise overtly. Thus although initial movement of Russian wh's to CP-spec is always Superiority preserving (12a), in contexts where HopP is available a further movement of the interior wh- becomes possible (12b), yielding a surface order that appears to violate Superiority.

(12) a. [$_{CP}$ **WH1 WH2** … t1 t2]

b. [$_{HopP}$ **WH2** [$_{CP}$ **WH1** WH2 … t1 t2]

Superiority is thus predicted to manifest itself in main clauses where HopP is overtly occupied by a non-*wh*-phrase (as in (8) and (9)), and in all embedded clauses (as in (10)) under the assumption argued for by Scott that HopP availability is a "Root Phenomenon," in the sense of Emonds (1976).

To summarize the results of this section, we have seen that an incorrect assessment of Russian as a scope rigid language leads Grebenyova (2006) to an incorrect analysis of wh- ordering effects in Russian sluicing constructions, and to a corresponding unsupported cross-linguistic generalization about the relation between wh- word order and scope, namely (6) above[126]. As a consequence, this incorrect assessment also causes Grebenyova to misrecognize what we are actually seeing in (3) and (4) - namely, genuine

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[126] It is not my intention to provide an alternative to Grebenyova's account of Russian sluicing data in this thesis. My goal here is different: to show how uncritically accepting the premise that Russian is a surface-scope only language has led a number of researchers to arguably wrong conclusions in various areas of Russian syntax (as well as to exemplify how it has perpetuated the claim of Russian scope rigidity in the literature).

Superiority effects (according to Scott (2012)). Incorrect assessment of Russian as a scope rigid language thus also contributes to an incorrect assessment of Russian as a Superiority violating language.

5.1.2 Stepanov and Stateva (2009)

Another domain involving Superiority and quantifier scope where Ionin's (2001) claims have been crucially invoked concerns scope freezing in datives, discussed at length in the previous two chapters and demonstrated here again with examples from Bruening (2001):

(13) a.   The teacher gave **a book** to **every student**.   ($\exists > \forall$), ($\forall > \exists$)
      b.   The teacher gave **a student every book**.   ($\exists > \forall$), *($\forall > \exists$)

(14) a.   The teacher gave **a different book** to **every student**.   ($\forall > \exists$)
      b.   #The teacher gave **a different student every book.**   (*$\forall > \exists$)

Bruening (2001) proposes that scope freezing is a Superiority effect such that the structurally higher QP will always be attracted to a little *v* head before the structurally lower one if the *v* head is endowed with an optionally present P feature. Thus, frozen quantifier scope ordering in the double object construction is taken to be fully analogous to frozen *wh-* linear ordering in multiple *wh-* constructions. Stepanov and Stateva (2009) explore the implications of this analysis for the Russian ditransitive construction, under the following additional assumptions:

(15) **Stepanov and Stateva's assumptions about Russian:**

  • Russian is a scope rigid language, as claimed by Ionin (2001)
  • Russian is a Superiority-violating language, as claimed by Stepanov (1998)

Given these two premises, Stepanov and Stateva reason as follows: if frozen scope in double object constructions is a Superiority phenomenon, and if Russian does not obey Superiority, then Russian should not be expected to show scope freezing in Russian ditransitive constructions. More exactly, Russian ditransitive constructions should exhibit no <u>special</u> constraints on scope interpretation – the situation in (the equivalent of) double object datives should be identical to that in other constructions in the language.

   Now, as we know, Ionin (2001) takes Russian to be a scope rigid language, hence quantifiers are expected to show their surface form construal in the general case. However, Ionin does admit scope reversal in one circumstance: where both quantifiers are contrastively focused. Thus Ionin concedes that an example like (16), with the two

quantifiers *odin malčik* 'one boy' and *kazduju devočku* 'every girl' focused, does allow either scope construal for the QPs in question[127]:

(16) (Xotja by) **ODIN mal'čik**   videl **KAŽDUJU devočku**
      At least   one   boy (NOM)   saw   every   girl (ACC)
      ($\forall$ >1); ?(1 > $\forall$)

Given this point, Stepanov and Stateva (2009) reason further as follows: if scope freezing in the English double object results from Superiority, and if Russian is not a Superiority-observing language, then scope reversal in the Russian equivalent of double object construction should be available in the case where scope reversal is generally available, namely, with contrastively focused quantifiers. They then claim that when contrastively focused QPs occur in the Russian equivalent of the double object construction, inverse scope is in fact available, as in (17):

(17) Ivan pokazal (po krajnej mere) **ODNOMU posetitelju**   **KAŽDYJ fil'm**
      Ivan showed   at least   one   visitor (DAT) every   movie (ACC)
      'Ivan showed every movie to at least one visitor.'
      ($\forall$ >1); ?(1 > $\forall$)

Stepanov and Stateva offer examples like (17) as evidence that Russian disobeys Superiority with QR just as it disobeys Superiority with *wh*-movement. On the basis of this result, they offer the following broad generalization:

(18) **Stepanov and Stateva's Generalization:**
     A language shows Superiority effects with QR iff it shows Superiority effects with wh-movement.

    In the previous sections of this thesis we have seen reasons to dispute both of Stepanov and Stateva's basic assumptions. We have seen overwhelming evidence against Ionin's claim that Russian is a scope rigid language. And we have reviewed arguments by Scott (2012) that Russian is not in fact a Superiority-violating language. Russian thus is not, in these core respects, different from English. The resulting picture is therefore a very different one from that suggested in Stepanov and Stateva (2009). Finally, we have seen of course that Russian is exactly like English in exhibiting scope freezing in

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[127] We have seen earlier that Ionin's examples with *odin* prefer surface wide scope (though I find inverse scope is still possible). In (16), inverse scope is indeed facilitated, which Stepanov and Stateva attribute to the contrastive focus marking on quantificational determiners. They seem to analyze inverse scope in these cases as arising through QR, although they maintain that in languages such as Russian QR may 'piggyback' on other processes such as topicalization or focus movement.

ditransitives[128], [129]. Thus, again, we see that an incorrect assessment of scope relations in Russian not only leads to incorrect generalizations, like the one offered by Stepanov and

[128] As we have seen in Chapter 4, the situation with scope freezing found with Russian ditransitives appears even more complex than that found with the English double object construction in that the exact scope behavior in Russian ditransitive constructions depends on each given predicate (specifically, it depends on whether we are dealing with Group 1, Group 2 or Group 3 predicate). Of course, given the striking parallelism between Russian and English with respect to scope that we have observed throughout the dissertation, the question naturally arises as to whether or not such a subdivision of ditransitive predicates exists in English as well.

[129] There is an additional serious problem with Stepanov and Stateva's example in (17) which they use as the key piece of evidence for their Generalization above. As we have discussed at length in Chapter 4, there is a plethora of evidence suggesting that Russian ditransitives are not a homogeneous group with respect to their scope behavior, and that even though the majority of Russian ditransitives (those belonging to Group 1 and 2 on my classification) do indeed show scope freezing, there is a large group of ditransitives that do not. The example in (17) that Stepanov and Stateva use in fact represents one of the verbs that do not show real scope freezing behavior, not only when constrastive focus is applied, but in general. Any of the tests used in Appendix 1 to argue for the existence of Group 3 verbs can be used here to show this. For instance, when the quantificational determiner of the structurally lower object is contrastively focused, it becomes immediately clear that the inverse scope is available (although in general, example (17) represents one of those cases where surface scope is strongly preferred):

(i) Ivan pokazal kakomu-to posetitelju **KA**židyj fil'm
     Ivan showed   some   visitor (DAT) every movie (ACC)
     'Ivan showed some visitor EVERY movie' (every >> some)

The sentence in (i) does indeed allow inverse scope (although the surface scope is also available even though in many similar cases on this tests the preference for inverse scope is overwhelming). Furthermore, other tests employed in Appendix 1 to verify our scope judgments lead to the same conclusion. Thus, the passivization tests reveal that although indeed for this particular predicate surface scope appears to be the preferred interpretation, the test below shows that inverse scope is nevertheless clearly available on the DAT >> ACC order of internal arguments:

(ii) Kakomu-to posetitelju byl pokazan každyj fil'm
      Some   visitor (DAT) was shown   every movie (ACC)
      'Some visitor was shown every movie' (every >> some)

The test in (ii) is particularly effective in bringing out the inverse s cope reading, suggesting the ditransitive predicate Stepanov and Stateva used in their example to argue for the lack of scope rigidity when contrastive focus is applied is in fact a predicate that does not belong to the group of 'scope frozen' predicates to begin with, even though it is in fact an example that on neutral intonation strongly prefers the surface scope interpretation. We have seen that with predicates of Group 1 and 2, which are truly scope frozen on one of the two possible orders of internal arguments, both of the tests in (i) and (ii) above are *not* able to override the initial frozen scope intuitions, suggesting that whatever is responsible for the frozen surface scope relation in such

Stateva, given in (18), but it also obscures the presence of important properties in Russian[130]. On the basis of Ionin's mistaken claim, Stepanov and Stateva misrecognize what we are actually seeing in Russian double object constructions - i.e., real Scope Freezing.

5.2 Consequences of the Proposed Account of Scope Freezing for English

We have noted before, without going into too many details of the analysis, that for Bruening (2001) scope freezing is a Superiority phenomenon. Given the many parallels between English and Russian in terms of quantifier scope in general and in terms of scope freezing in ditransitives in particular, it is natural to ask whether Bruening's account could be adopted to explain Russian data as well. To do that, I will discuss his account in a bit more detail first and then will apply it to my data to see how the account fares with respect to these data. We will see that Bruening (2001) encounters many problems when applied to the Russian scope data, concluding that at the very least, the account should not be extended to Russian.

5.2.1 Scope Freezing in English: More on Bruening (2001)

To recapitulate briefly, on Bruening's account QR is a feature-driven type of movement where Superiority prohibits the structurally lower object (for him, the Accusative object) from raising to its *v*P-adjoined position before the structurally higher one (the Dative QP object) does. Coupled with *Shortest Attract* or *Shortest Move* (Chomsky 1993, Richards 1997) it causes the (lower) direct object to cross paths with and tuck in right below the indirect object upon QR to *v*P[131],[132].

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sentences is a real syntactic phenomenon in which the structurally lower QP cannot outscope the higher one even if it tries to "piggyback" on other types of movements, such as focus movement. Thus, the example in (17) could not be legitimately used to show what the authors claim it shows; if the logic of their argument is to be found persuasive at all, the test should be applied to an example with a predicate that belongs to the scope frozen class. However, I personally fail to see how an example where *both* quantificational determiners are focused can lead to any insights regarding regular quantifier scope or scope freezing availability.

[130] There are other accounts of various syntactic phenomena in Russian that crucially rely on Ionin's view of the language's scope rigidity. I will not attempt to list or discuss all of them here.
[131] Richards, whose work Bruening relies on, subsumes both *Attract* and *Shortest* under the broader notion of Economy and defines them as follows (Richards 1997: 113):

(i).   **Attract:** An attractor K attracts a feature F, creating a copy α' of an element α containing

F, and merging α' with K. The relations between α', K, and F must all obey Shortest.

(ii).   **Shortest:** A pair P of elements [α, ß] obeys Shortest iff there is no well-formed pair P' which can be created by substituting γ for either α or ß, and the set of nodes c-commanded by one

Admitting that Quantifier Raising in general is not obviously feature-driven, unlike other types of movement that are widely taken to be subject to Superiority, Bruening draws parallels between QR and object shift found in Germanic languages, which Chomsky (2001) analyzes as being feature-driven by a formal P feature that is optionally present on the light verb *v*. Bruening exploits the observation that both object shift in Germanic languages and QR in English have interpretive effects and proposes that the P feature can be parameterized: in languages that allow object shift the P feature is employed to attract the object to *v*P while in English (and other languages that do not have object shift) it is parameterized so as to apply to Quantifier Phrases[133]. Thus, on his

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element of P' and dominating the other is smaller than the set of nodes c-commanded by one element of P and dominating the other.

[132] The idea seems to be inspired by the well-known parallelism between wh-movement and QR. Thus, the suggestion is that quantifiers, like *wh-* elements, are attracted by a higher feature that obeys familiar minimality constraints. In the case of *wh-* this feature is located in the CP domain, whereas with quantifiers the domain is vP:

(i)   a.   [$_{CP}$ WH   C   …   WH]
             [F]   [F]

      b.   [$_{vP}$ QP   v   …   QP]
             [F]   [F]

Just as the highest *wh-* (WH1) in a multiple *wh-* structure receives widest scope, with lower wh (WH2) "tucking in" and receiving scope beneath it (iia), so the highest quantifier phrase (QP1) in a double object construction receives widest scope, with the lower quantifier (QP2) receiving scope beneath it (iib):

(ii)   a.   [$_{CP}$ WH1 WH2 C   …   WH1 … WH2]
             [F]   [F]

      b.   [$_{vP}$ QP1 QP2   v   …   QP1 … QP2]
             [F]   [F]

Frozen quantifier scope ordering in double object constructions is thus counterpart to frozen *wh-* linear ordering in multiple *wh-* constructions.

[133] Note that formulated this way, Bruening's account seems to make the prediction that no language that allows object shift will also allow feature-driven QR, thus predicting no Scope Freezing in configurations similar to the one found in the English Double Object Construction and Russian scopally frozen ditransitives in such languages. However, at least one language I am aware of for which research on object shift is available, allows both specificity-related object shift (Mykhaylyk and Ko 2008, Mykhaylyk 2009) as well as demonstrates Scope Freezing in ditransitives, namely Ukrainian. Thus, the example (ib) below in which the Oblique object QP precedes the Accusative Theme object, exhibits the same surface scope effect as that found with the English DOC and with Russian (Group1) ditransitives:

(i) a. Marijka   zabrala   [jakus' igrašku]   [u   kožnoji dytyny]
     Mary   took.away   [some   toy](ACC)   [PP at   [every child](GEN)]
     'Mary took away some toy from every child'
     (∃ > ∀, ∀ > ∃)
     b. Marijka   zabrala   [u jakojis' dytyny]   [kožnu igrašku]
     Mary   took.away   [PP at [some child] (GEN)]   [every toy](ACC)
     'Mary took away from some child every toy'
     (∃ > ∀, *∀ > ∃)

Subjecting the higher object phrase in (ib) to object shift does not change the resulting scope
interpretation (ic); however, the raised object is now interpreted as specific, which makes it even
clearer that surface scope is the only interpretation possible for this sentence:

     c. Marijka   [u jakojis' dytyny]   zabrala   [kožnu igrašku]
     Mary   [PP at [some child] (GEN)]   took.away   [every toy](ACC)
     'Mary took away from some specific child every toy'
     (∃ > ∀, *∀ > ∃)

Finally, let us take a look at what happens when both object phrases are fronted to a position
above the verb:

     d. Marijka   [u jakojis' dytyny]   [kožnu igrašku]   zabrala
     Mary   [PP at [some child] (GEN)]   [every toy](ACC)   took.away
     'Mary took some specific child's every toy'
     (∃ > ∀, *∀ > ∃)

The interpretation for this sentence is one in which the child is known and there is a known set of
toys such that Mary took every toy from the set away from that child. Again, the only scope
available is that of wide scope for the higher QP. As the reader may already suspect, given the
close similarity between Russian and Ukrainian, the latter in fact shows the same subdivision of
ditransitive predicates into the three Groups discussed in Chapter 4 that Russian does. Let us also
take a look at what happens with Group 3 ditransitives in Ukrainian in the context of object shift.
        The first two sentences in (ii) demonstrate the fact that both orders of QPs with the verb
podaruvaty (to present) are scopally ambiguous. The second order, however, the one where the
Dative QP precedes the Accusative, shows rather strong preference for surface scope (to indicate
this, the inverse scope is marked with a question mark), although the inverse scope is still
available.

(ii). a. Marijka   podaruvala   [jakus' igrašku]   [kožnij dytyni]
     Mary   presented   [some   toy] (ACC)   [every child](DAT)
     'Mary   presented some toy to every child'   (∃ > ∀, ∀ > ∃)
     b. Marijka   podaruvala   [jakijs' dytyni]   [kožnu igrašku]
     Mary   presented   [some   child] (DAT)   [every toy] (ACC)
     'Mary presented some child with every toy'   (∃ > ∀, ?∀ > ∃)

The interesting contrast arises once object shift is applied to the two objects in the (iib) sentence:

     c. Marijka   [jakijs' dytyni]   podaruvala   [kožnu igrašku]

account, when the English light verb *v* carries the optional feature, the QP will be attracted to little *v* via QR; if the *v* head lacks the P feature, QR will not apply, causing the derivation to crash if the QP is uninterpretable in its base-generated position. On Bruening's account this applies to object QPs but crucially not to QPs in subject position; subject QPs for Bruening do not have to raise to *v*P (due to being semantically interpretable in their base position as sister to the verb), hence the account predicts no competition between the subject and the object QPs with respect to Superiority, a fact that explains for Bruening why either of the objects is able to scope over the subject QP. Thus, the presence of the P feature on little *v* drives object QR, and Superiority, together with Shortest, ensures that the structurally higher object QP moves first and the structurally lower one 'tucks in', accounting for Scope Freezing. The cases where Scope Freezing does not obtain, such as (19a) and (20a) below, on Bruening's account are due to the two objects being equidistant from the verb carrying the P feature, thus either phrase can be attracted first (hence the scope ambiguity).

(19)   a. The teacher gave a (different) book to every student. (every > a)

Mary   [some child] (DAT)   presented   [every toy] (ACC)
'Mary presented some (specific) child with every toy'
(∃ > ∀, ?∀ > ∃)
d. Marijka   [jakijs' dytyni]   [kožnu igrašku]   podaruvala
Mary   [some child] (DAT)   [every toy] (ACC)   presented
'Mary presented some specific child with every toy' (∃ > ∀)
'For every toy, Mary presented it to some child in a set of children' (∀ > ∃)

As can be seen from the glosses, shifting the higher QP object to a preverbal position forces a specific indefinite reading of this object (iic); this, in its turn, makes the wide scope for the shifted object a highly salient and strongly preferred interpretation, as may well be expected. However, when both objects are shifted as in (iid), the inverse scope not only reemerges, it becomes highly salient. In fact, it was sentence (iid) that helped me verify that this predicate belongs to the group of scopally ambiguous ones (Group 3) since as mentioned above, the sentence in (iib) shows a rather strong preference for surface scope, initially suggesting it was a Group 1 predicate. Thus, it seems that object shift can be used as yet another diagnostic for judging available scopes in ditransitives in Ukrainian (and, arguably, Russian as well).

It appears then that the original formulation of the Superiority account of Scope Freezing given in Bruening (2001) needs to be reformulated to allow for the above cases: either the same P feature on *v* has to be allowed to regulate both object shift and Superiority-obeying QR, or more than one optional feature on little *v* (and arguably on other heads, to allow for optional instances of QR past *v*P-level) has to be posited. Either of these solutions appears to weaken the original proposal in Bruening (2001) as far as I can tell. Consider the former option. Following this solution appears to force us to say that the shifted object QP does not in fact undergo QR (and as such, the P feature only regulates object shift in this case) and QR thus piggybacks on object shift, getting a free ride, so to speak; however, this view also seems to force us to commit to saying that the lower, non-shifted object undergoes QR as regulated by this very same P feature on *v*. When both objects are shifted, QR then gets a free ride on object shift in both instances of movement. This seems to me to be a bizarre situation at best.

b. The teacher gave a (#different) student every book. ***(every > a)**

(20)   a. Maud draped a (different) sheet over every armchair. (every > a)
        b. Maud draped a (#different) armchair with every sheet. ***(every > a)**

To demonstrate, the two structures posited for the examples in (19) are shown in (21):

(21)   a. The teacher gave a (different) book to every student. (every > a)
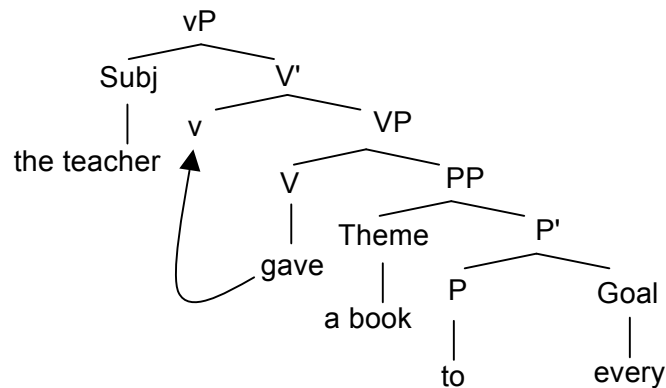
b. The teacher gave a (#different) student every book. ***(every > a)**
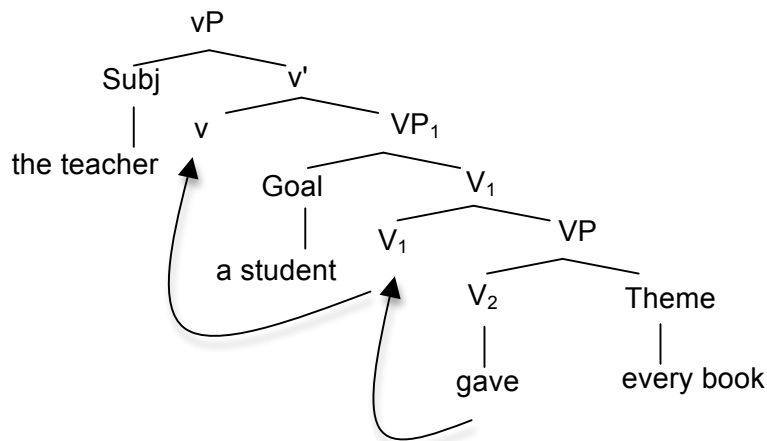
Thus, on this account the difference between the two examples above comes down to the fact that in the Prepositional Dative construction the Theme and the Goal (or rather, the Goal together with the preposition as a constituent) are arguments of the same head, and so either one is argued to be able to raise to *v*P first, with the other argument tucking in

below[134]. In the Double Object Construction, however, the Goal is taken to be the argument of a higher head, whereas the Theme is argued to originate lower in the structure, as a complement of the lexical verb. The latter "complex predicate" structure is essentially as proposed in Marantz (1993), who argues for the extra layer of structure involved in the DOC and the *with*-variant of the Spray-Load construction, but not in the Prepositional Dative and the locative variant of the Spray-Load construction. The complex predicate structure above is argued to have the Goal argument projected by a null verbal head (V1); the Theme being projected by the lexical verb (V2) which originates below the null verbal head ensures that the c-command relations are unambiguous, with the Dative Goal asymmetrically c-commanding the Accusative Theme and thus being attracted to *v*P first in conformity with Superiority[135],[136].

5.2.2 Bruening (2001) Tested Against Russian Data

Formulated this way, Bruening's account makes certain predictions that are at odds with empirical data from Russian. First, the account seems to predict that whatever scope freezing is found in the language should be confined to vP, since a QP targeting a higher adjunction position would not be in competition with any QPs inside the vP that target a vP-adjoined position for movement. Thus, cases of scope freezing found outside of vP, such as those found with scrambling, on Bruening's account must be treated as an entirely unrelated phenomenon. The next, although related, prediction is that since

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[134] In adopting this structure Bruening essentially relies on accounts such as Hoekstra and Mulder (1990), Den Dikken (1995) (cf. Harley (1995)) that argues for the NP and PP constituting a small clause, with *a book* essentially being the subject of a predicate *to every student*.

[135] Bruening (2001) reviews a number of arguments adduced to support the complex predicate structure with the null applicative head such as the semantics of affectedness which is present in the DOC, as in (ia) below, but not in the prepositional Dative construction, as in (ib), which can only have the goal, endpoint or source interpretation (arguably whatever meaning is contributed by the preposition):

(i)   a. The lighting here gives me a headache.
        b. *The lighting here gives a headache to me.

Additional evidence supporting the proposed complex predicate structure is argued to be the impossibility of the double object nominalizations in English in (iia), as opposed to the grammatical Dative nominalizations, exemplified in (iib) below:

(ii)   a. *Sue's gift of Mary (of) a book.
   b. John's gift of a book to Mary.

Such contrast is argued to be expected if such 'root nominalizations' are prohibited from nominalizing the complex formed by the lexical verb and the applicative morpheme.

[136] Note that strictly speaking, the Theme c-commands the Goal even in the small clause structure in (21a) as well, which should be a problem for Bruening (2001).

Bruening's is a feature-driven account of scope freezing, scope freezing would arguably not be predicted to result from overt displacement of QPs, as for instance, is clearly the case with scrambling of QPs in Russian (especially so with Scrambling, which is arguably *not* feature-driven.) If we abstract away from the English cases Bruening considered in his (2001) paper and spell out the general predictions the account seems to make, Russian data appears to be problematic for the account in essentially every syntactic context in which freezing occurs in Russian. For instance, take the case where a verb has one obligatory QP argument and one QP adjunct. While Bruening doesn't discuss such examples for English (in fact, none such examples are discussed in the literature dealing with English, as far as I am aware), what the account seems to predict, I think, is that an adjunct QP should take obligatory wide scope over a verb's only argument QP (on the general assumption that the argument is structurally closer to the verbal head and the adjunct phrase is adjoined to a projection of the head predicate above and to the right of the object argument, as demonstrated below for English):

(22)

a. We left the house early.   b. He studies syntax before class.
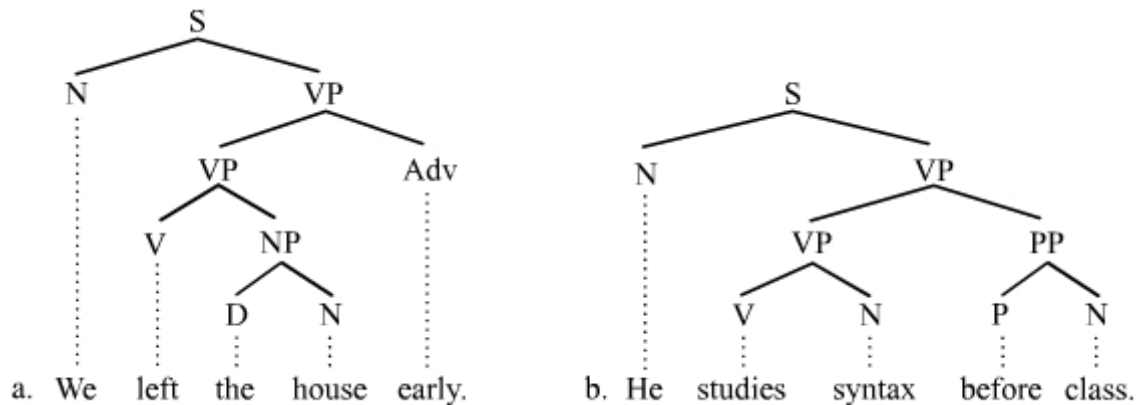
Using the *before* adjunct phrase sentences as an example, and assuming the same structural relations hold in both languages for *before* adjunct phrases, let us test this prediction with Russian. As the Russian examples in (23) demonstrate, the sentence is actually ambiguous on either order of the QPs (although in (23b) there is strong preference for surface scope, which may require doing a few additional tests discussed in Appendix 1 for the reader to confirm that the example is in fact ambiguous).

(23)   a. Vanja vyučil   [kakoj-to tekst]   [pered   [každym zanjatijem]]
          Vania studied   [some text](ACC)   [PP before   [every class](INSTR)]
          'Vania studied/memorized some text before every class' ($\exists > \forall, \forall > \exists$)
       b. Vanja vyučil   [pered   [kakim-to zanjatijem]] [každyj tekst]
          Vania studied   [PP before   [some class](INSTR)]   [every text](ACC)
          'Vania studied/memorized before some class every text' ($\exists > \forall, \forall > \exists$)

Such results might be used to argue that the theory is not meant to cover the argument-adjunct QP relations, and so the test is inconclusive. Consider, however, the pair of examples in (24):

(24) a. Vanja potreboval [kakoje-to voznagraždenije] [pered [každym vystuplenijem]]
     Vania demanded [some reward] (ACC)   [$_{PP}$ before [every performance](INSTR)]
     'Vania demanded some reward before every performance' (∃ > ∀), (∀ > ∃)
    b. Vanja potreboval [pered [kakim-to vystuplenijem]] [každoje voznagraždenije]
     Vania demanded [$_{PP}$ before [some performance](INSTR)] [every reward] (ACC)
     'Vania demanded before some performance every reward' (∃ > ∀), *(∀ > ∃)

In (24a), where the adjunct phrase follows the argument QP, the scope relations are free. Again, as mentioned above, Bruening's account seems to predict frozen (inverse) scope, since the *before* QP phrase is arguably structurally higher than the argument QP, and so on Bruening's account the adjunct QP should be attracted to the little *v* head first, with the argument phrase tucking in below it. Let us assume, for the sake of argument, that there is a way to explain away the scope facts in (24a) as irrelevant to Bruening's theory, as above, or that the account does not actually predict what I think it does. What the account nevertheless does not seem able to explain though, is the frozen scope that obtains in (24b). Here the judgments are very clear and additional tests from Appendix 1 support the intuition that only surface scope relation between the two QPs is possible. I do not see how Bruening's account can derive the scope contrast that exists in (24). On my account, given the SF Generalization, on the above assumptions about the structural position of the *before* phrase, what is somewhat unexpected in the lack of frozen scope in (23b). It forces me to conclude that the *before* phrase in this case can be attached either on the left or on the right. The contrast between (24a) and (24b), however, is exactly as expected: if the *before* phrase with this particular predicate has to be attached to the right of the obligatory argument (24a), the scope freezing in (24b) is indicative of the adjunct phrase's having undergone overt raising across the verb's argument phrase[137], which seems exactly right.

To take just one more syntactic context from Russian discussed previously that Bruening's account can not explain quantifier scope and scope freezing distribution for, consider the pairs of sentences below (these are what I have been referring to as "reflexive monotransitives"):

(25) a. Maša otravilas'   [kakim-to bljudom] (na každom prazdnike)
     Masha poisoned (REFL) [some dish] (INSTR) [on every celebration](PREP)
     'Masha got poisoned with some dish at every celebration' (∃ > ∀), (∀ > ∃)

---

[137] The semantic interpretation of the construction in (24b) is fully compatible with the account in terms of quantifier domain restriction theory that I proposed in Chapter 3.

b. Maša otravilas'   (na kakom-to prazdnike)   [každym bljudom]
Masha poisoned (REFL) [on some celebration] (PREP) [every dish] (INSTR)
'Masha got poisoned at some celebration with every dish' ($\exists > \forall$), *($\forall > \exists$)

(26) a. Maša pokazalas'   (v kakom-to plat'je)   [každomu drugu]
Masha showed (REFL) [in some dress] (PREP) [every friend](DAT)
'Masha showed herself in some dress to every friend'   ($\exists > \forall$), ($\forall > \exists$)

b. Maša pokazalas'   [kakomu-to drugu] (v každom plat'je)
Masha showed (REFL) [some friend] (DAT) [in every dress] (PREP)
'Masha showed herself to some friend in every dress'   ($\exists > \forall$), *($\forall > \exists$)

Assuming as before that the adjunct prepositional phrase is adjoined to a projection of the head predicate above and to the right of the object argument, the examples in (25) and (26) are a mystery for accounts such as Bruening's in terms of their quantifier scope and scope freezing distribution. To accommodate the data, a Superiority account of scope freezing (or any account that attributes scope freezing to a structural asymmetry of the two QPs in question) would have to claim that while the two QPs in (25a) are equidistant from the probe, for (25b) it would need to assume that the adjunct prepositional phrase is projected in a structurally higher position with respect to the verb's argument, from which it c-commands the latter, thus being attracted by the probe first. With the pair of sentences in (26), the exact opposite would have to be claimed, which seems entirely unsubstantiated. On my account, which crucially relies on the empirical SF Generalization drawn from the data, the scope distribution in (25) and (26) is not something to explain away, but rather, something to draw insights from. In particular, the order of QPs in (25a) would be treated as the base order (as is to be expected), and the order in (25b) would represent a derived order, achieved via overt movement/Topicalization of the adjunct phrase. In (26a), the scopal ambiguity of the example leads me to the unexpected conclusion that the adjunct phrase must be adjoined on the left, and the scope freezing in (26b) is the result of the overt instance of movement/Topicalization of the verb's argument QP across the structurally higher, preceding adjunct phrase. What is important is that the semantics of the scopally frozen sentences is as was described in Chapter 3 – with the topicalized phrase being interpreted as ranging over a restricted domain, binding its domain variable inside the lower QP.

5.2.3 Initial Evidence for the SF Generalization in English and Its Consequences for the Analysis of the English Scope Freezing Constructions

The idea that overt movement may be causing scope freezing in English is certainly not new. Epstein (1992) cites the following data from Lasnik and Uriagereka (1988):

(27)   a. I don't think that Mary solved any problems.
        b. *I don't think that any problems, Mary solved. (Lasnik and Uriagereka (1988))

The sentence in (27b) on that account is ungrammatical if the NPI *any problem* has to move at LF to the negative licensor, but cannot due to being displaced overtly. It has been pointed out to me however that examples such as (27b) may be ungrammatical for an entirely different reason: Postal (1974) argued that the moved QP needs to be interpreted as a topic but this interpretation is not available due to the quantificational status of the moved phrase (den Dikken, p.c.)[138]. I will leave this issue open for further research. However, examples such as (28b) from Heim and Kratzer (1998) also suggest that overt displacement of a QP across another QP may have a surface scope freezing effect (though the authors do not suggest this explicitly):

(28)   a. Almost everybody answered at least one question.
        √ (almost everybody >> at least one), √ (at least one >> almost everybody)
        b. At least one question, almost everybody answered.
        √ (at least one >> almost everybody), *(almost everybody >> at least one)

Thus, while (28a) is ambiguous, displacing the object QP above the subject QP results in the wide scope interpretation of the moved QP; the fact that the other reading (subject wide scope) is unavailable suggests that reconstruction of the overtly moved QP does not take place. Such striking parallelism between English and Russian and the finding that QR in the two languages is exactly the same with respect to the constraints it obeys strongly suggest that scope freezing in the English double object construction may in fact be amenable to the analysis proposed here for Russian. I will not attempt to provide a fully spelled out account of Russian scope freezing data here and will merely discuss a few examples to show that this line of research is indeed wide open for English. Consider Bruening's examples, repeated below for convenience:

(29)   a. The teacher gave a (different) book to every student. (every > a)
        b. The teacher gave a (#different) student every book. ***(every > a)**

(30)   a. Maud draped a (different) sheet over every armchair. (every > a)
        b. Maud draped a (#different) armchair with every sheet. ***(every > a)**

On the account I proposed for Russian, the ambiguity of the examples in (29a) and (30a) is derived in the regular fashion, via QR of the structurally lower QP to a position above the higher one where it can take scope over the latter. Nothing more needs to be said about these examples. The frozen surface scope interpretation in (29b) and (30b) is, given

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[138] Examples like (28b) from Heim and Kratzer (1998) and the details of my own account, if on the right track, seem to argue directly against the view that quantificational phrases cannot be (interpreted as) topicalized (cf. Ebert (2009)).

the SF Generalization and assuming that it has cross-linguistic applicability, is quite suggestive then. Specifically, it suggests that the order of QPs we observe on the surface is not the base-generated order. Rather, these sentences derive in the following way:

(29b') The teacher gave [a student](DAT) [every book]$_{ACC}$ **t**[a student] (DAT)
(30b') Maud draped [an armchair](ACC) [with every sheet] **t**[an armchair] (ACC)

Thus, the SF Generalization leads us to conclude that the Dative-marked Goal object QP in (29b') originates in a position that is structurally lower than the position of the Accusative-marked Theme object QP (providing support for the original proposal in Larson (1988)), and the surface order we observe is the result of the Topicalization-like overt instance of movement of the structurally lower QP over the structurally higher one. The relative scope ordering of the two QPs, according to which the Accusative-marked QP can move further, but cannot outscope the higher Dative-marked QP is due to the proposed binding relation, Relation ℜ, which I argued is established at the moment overt QP crossing takes place, with the now higher QP binding a domain variable in the QP that is now the structurally lower one. This binding is what precludes the QP that contains the variable from moving above the one that serves as the binder for the variable, thus accounting for the relative nature of scope freezing (the proposed derivations are as in (29b'') and (30b'')).

(29b'') The teacher gave [a student$_x$] (DAT) [every <book, f(x)>]$_{ACC}$ **t**[a student$_x$] (DAT)
(30b'') Maud draped [an armchair$_x$] (ACC)[with every <sheet, f(x)>] **t**[an armchair$_x$] (ACC)

Without going through any more of the examples, I will suggest that the account I proposed for Russian and briefly sketched here for English is what happens in all cases of true surface scope freezing, namely that such scope freezing effects are always due to an overt instance of movement of a QP across a higher one that leads to the establishment of Relation ℜ and the domain restriction variable binding that is at the heart of this relation.

5.3 Significance of the Russian QP Scope and Scope Freezing Data for Other Languages

As may well be suspected at this point, given the vast similarities between such syntactically different languages as Russian and English in what concerns quantifier scope relations, other languages may also show similar scope and scope freezing behavior, despite initial evidence to the contrary. Japanese, for instance, is another language that has famously been claimed to be a language where surface c-command relations determine what scopes are available. According to the vast literature on Japanese QP scope, it is in fact the overt displacement of QPs (e.g., Scrambling) that

leads to the establishment of non-surface scope relations, argued to be derived via reconstruction (see Hoji (1985) and later work for a detailed discussion)[139]. Despite such apparent differences, Japanese has also been shown to be a language that exhibits true surface scope freezing in ditransitives (as well as a number of other syntactic contexts, as discussed in Larson and Harada (2011) and elsewhere). This naturally leads to the question of the extent to which quantifier scope relations in languages such as Russian, English and Japanese can be argued to be regulated by the same syntactic mechanisms, despite all superficial evidence for their vastly different behavior in the area of quantification. In the next sections I will briefly consider Japanese scope freezing data and the account of the phenomenon proposed in Larson and Harada (2011). I will then test the latter account against the Russian scope freezing data with an eye on the predictions the account seems to make for other languages. I will conclude that although the account is superior to Bruening (2001) in being able to derive scope freezing distribution facts correctly in a much broader range of Russian scope freezing constructions, it nevertheless seems to make some predictions that are falsified by the Russian data.

5.3.1 Japanese Scope Freezing

Japanese is known to exhibit the exact same scope freezing effect with ditransitives as that found in the English DOC (Hoji 1985, Miyagawa and Tsujioka 2004, Harada and Larson 2009, Larson and Harada 2011). Thus, while both DAT>>ACC and ACC>>DAT orders in ditransitive sentences are possible in Japanese (just as they are in Russian), whenever the Dative object precedes the Accusative object in overt syntax, the Dative object QP necessarily takes scope above the following ACC-marked QP (31):

(31) a. Taroo-ga   dareka-ni   dono nimotu-mo   okutta (koto)
         Taroo (NOM)   someone (DAT)   which package-all   sent
         'Taroo sent someone every package.' ($\exists > \forall$),* ($\forall > \exists$)

      b. Yamada-sensei-ga   an-nin-izyoo-no   gakusei-ni
         Yamada-professor (NOM)   three-(CL)-more (GEN)   student (DAT)

         ni-hon-izyoo-no   ronbun-o   okutta (koto)
         two-(CL)-more (GEN)   paper (ACC)   sent
         'Professor Yamada sent three or more students two or more papers.'
         (3oM>2oM,*2oM>3oM)

---

[139] Although see Miyagawa (2003, 2006) for an account of scrambling of QPs in Japanese that discusses a remarkably similar situation in terms of the lack of reconstruction when what is scrambled is a quantifier phrase.

Moreover, as demonstrated in Harada and Larson (2009), surface scope freezing is observed both with high-datives (Recipient *-ni*, (32a)) and low-datives (Path *-ni*, (32b)).

(32) a. Yamada-sensei-ga   [**san-nin-izyoo**-no   gakusei-ni]
      Yamada-professor (NOM)   three-(CL)-more (GEN) student (DAT)

      ofisu-ni   [**ni-hon-izyoo**-no   ronbun-o]   okutta (koto)
      office (DAT)   two-(CL)-more (GEN) paper(ACC)   sent
      'Prof. Yamada sent three or more students two or more papers to the office.'
      ***Q-Acc > Q-Dat** (inverse scope impossible!)

      b. Yamada-sensei-ga   Hanako-ni   [**ni-kasyo-izyoo**-no atesaki-ni]
      Yamada-professor-**NOM**   Hanako-**DAT**   two-**CL**-more-**GEN** address-**DAT**

      [**yon-hon-izyoo**-no   ronbun-o]   okutta (koto)
      four-(CL)-more (GEN)   paper (ACC)   sent
      'Prof. Yamada sent Hanako four or more papers to two or more addresses.'
      ***Q-Acc > Q-to** (inverse scope impossible!)

Harada and Larson (2009) take the scope freezing facts as yet another piece of evidence that Japanese DAT>>ACC sentences should be treated like the English DOC, rather than the prepositional Dative construction[140]. The account of Japanese scope freezing, proposed in Harada and Larson, relies crucially on the assumption that the Dative *ni*-phrase originates in a position structurally lower than the position of the Accusative object, as expected under standard projection by the thematic hierarchy. They cite evidence from crossover and unaccusativity (due to Zushi 1992) as well as information structure and specificity (Kaiser and Nakanishi 2001) that supports this conclusion[141].

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[140] Despite initial similarity to the English PP Dative, with the *ni*-phrase corresponding to the English *to*, other considerations that lead the authors to conclude that the Japanese DAT>>ACC sentences correspond to the English DOC are the general native speaker intuitions about the DAT>>ACC order being the unmarked one, and data from domain relations whereby the Dative Goal asymmetrically c-commands the Accusative Theme argument.

[141] Important indirect evidence for the derived position of Dative *ni*-phrases in Japanese ditransitives in Larson and Harada (2011) comes from a number of constructions, such as intransitive locatives, transitive locatives and possessives. Discussing intransitive locatives, for instance, the authors note that although, given standard projection theory, we expect the NOM-DAT order to be the basic one, both the speaker intuition and the domain-sensitive phenomena point to the DAT-NOM order as being the basic one. It is quite revealing then that this DAT>>NOM order, that is clearly derived in the case of locatives, is also associated with surface scope freezing, while the base-generated (but dispreferred) NOM>>DAT order is scopally ambiguous. Expectedly, the thematically predicted NOM>>DAT order is also the more neutral one in terms of information structure and specificity, as verified by the Kaiser and Nakanishi test. The exact same facts are also observed with Japanese ditransitive locatives and possessives,

5.3.2 Larson and Harada (2011): Cyclic Linearization Account of Japanese Scope Freezing

Larson and Harada (2011) postulate the following theses and argue that *ni*-phrases are not case-marked, but are rather concordial elements receiving case from a higher probe:

(33)

- NP-*ni* must c-command a structurally case-marked argument
- *Ni* is neither a case-marker, nor a case-probe.
- *Ni*-phrases obtain case by agreement from a structural case probe (v,T).

The authors follow the intuition expressed in traditional grammars, according to which agreement on adjectives and nouns is not the same thing: while agreement marking on nouns is "real", agreement on adjectives is merely concordial in nature. On this view, *ni*-phrases must raise to a position c-commanding the element receiving structural case, where it can undergo agreement; staying in its low base-generated position will result in the *ni*-phrase remaining non-case-marked, as the probe will stop looking for an element to agree with as soon as it reaches the higher element that is to be marked with structural (NOM or ACC) case. Larson and Harada recast the traditional grammarians' intuition about the "real" and "concordial" nature of case on nouns and adjectives in terms of the feature theory developed in Pesetsky and Torrego (2004): the notion of "real" is reanalyzed as "valued", and the notion "concordial" as "unvalued"[142]:

(34)   a. Nouns enter the numeration with an **uninterpretable, valued** case feature
         b. Adjectives enter the numeration with an **uninterpretable, unvalued** case feature

Following standard assumptions, *v* is taken to bear an interpretable, unvalued case feature. By (34a) N bears an uninterpretable, valued occurrence of case, where the value is accusative (ACC) in this instance. According to (34b), the intervening elements are taken to bear uninterpretable, unvalued occurrences of the case feature (35a). Agreement between the higher, unvalued features and the lower valued feature, then produces a single feature with multiple instances that is both interpretable and valued (35b) – a legitimate interface object:

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which Larson and Harada (2011) demonstrate also exhibit scope freezing on the DAT>>ACC order (see their (2011) paper for the examples demonstrating these points).
[142] The generalization in (34) is not an absolute one: Larson (2007) discusses the so-called Ezafe languages, where adjectives and other elements seem to behave like nouns in bearing (oblique) valued case features, and Corbett (1987, 1995, 2006) discusses Slavonic, where nominal elements behave adjectivally, being inserted with unvalued case features and obtaining case by agreement.

(35)

a.
```
                vP
         ┌──────┴──────┐
        v     ...      DP
      iC[ ]        ┌────┴────┐
                   D         AP
                 uC[ ]  ┌─────┴─────┐
                      uC[ ]   AP        NP
                           uC[ ]     uCacc[ ]

        ╰─────────┬─────────╯      ╰────┬────╯
             unvalued Case        valued Case
               features             feature
```
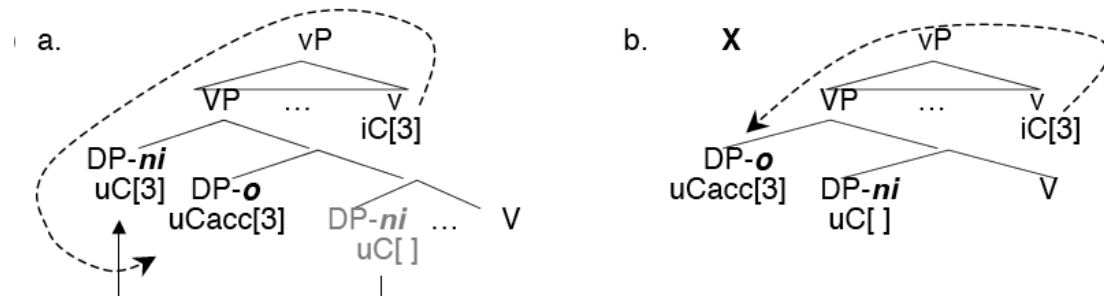
b.
```
                vP
         ┌──────┴──────┐
        v     ...      DP
      iC[3]        ┌────┴────┐
                   D         AP
                 uC[3]  ┌─────┴─────┐
                      uC[3]  AP        NP
                           uC[3]     uCacc[3]

             ╰──────── Agreement ────────╯
```
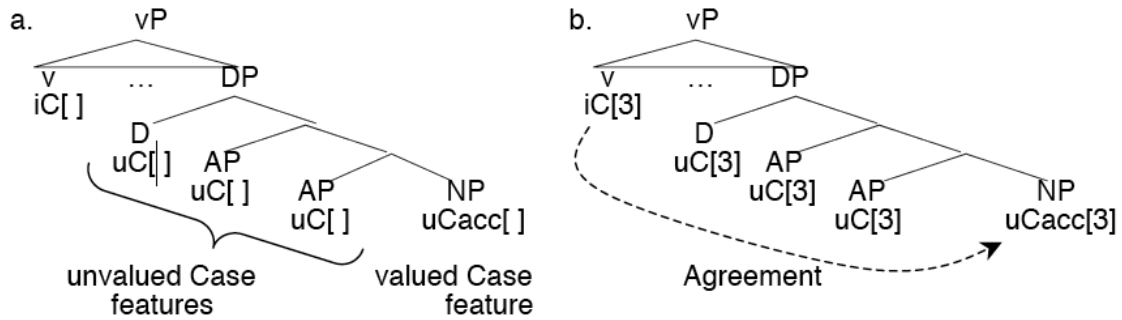
Consider a *v*P containing a direct object. Little *v* is taken to bear an interpretable, unvalued case feature; DP-*o* bears an uninterpretable occurrence of case valued as accusative (ACC). If, as Larson and Harada propose, -*ni* phrases are concordial, bearing uninterpretable, unvalued case features, and if they are situated above the direct object (either by being merged there or having moved there from a lower position), then agreement between the higher, unvalued features and the lower valued feature will produce a single feature with multiple instances that is both interpretable and valued (36a) – a legitimate interface object. What is not going to produce a legitimate interface object is a situation where the *ni*-phrase merges below the structural case-marked DP and remains there (36b):

(36)

a.
```
                    vP
            ┌────────┴────────┐
           VP      ...         v
      ┌─────┴─────┐          iC[3]
    DP-ni      DP-o
    uC[3]   uCacc[3]  ┌───────┴───────┐
                    DP-ni   ...     V
                     uC[ ]
```

b. **X**
```
                    vP
            ┌────────┴────────┐
           VP      ...         v
      ┌─────┴─────┐          iC[3]
    DP-o       DP-ni
  uCacc[3]      uC[ ]  ┌───────┴───────┐
                                        V
```

In a situation like (36b), DP-*o* is valued for case, and so it will not probe the –*ni* phrase beneath it, nor will the interpretable unvalued feature on *v* probe beyond DP-*o*. The search will terminate, leaving DP-*ni*'s case feature unvalued. The derivation of transitive locatives, intransitive locatives and possessives (see footnote 18) is then argued to proceed in exactly the same way: the *ni*-phrase, projected low in accordance with theta-theory A-scrambles to the edge of VP to a position above the DP, which is marked for structural case where it is able to undergo agreement with the higher probe (little *v* for

ACC, T for NOM). Remaining in situ in its original position below the structurally case-marked DP would leave the *ni*-phrase unvalued and the derivation would crash[143].

The account of Japanese scope freezing proposed in Larson and Harada (2011) combines their movement account of *ni*-phrases with the Cyclic Linearization theory put forth in Fox and Pesetsky (2005a,b) and Ko (2005). The basic idea of Cyclic Linearization theory is that certain nodes α in the derivation of a structure constitute "linearization domains" (LDs). At an α-node, linear relations among α-constituents are logged in a "linearization statement". Linearization statements are additive, and their transitive closure is required to be consistent, such that "subsequent structure-building can add new constituents, remerge older ones, etc., but once linear relations between X and Y are fixed in α, they must be preserved in all larger domains β" (Larson and Harada 2011, p.27). Ko (2005) observes that the condition that a probe can search only in its c-command domain enforces an important restriction on scrambling, if the latter is taken to be conditioned by a feature (Σ) resident on the phrase head. The c-command restriction forbids α from searching its specifier γP, or a phrase contained within it, for a matching valued feature iΣ. Therefore, no scrambling from the specifier will be possible (37b):

(37)
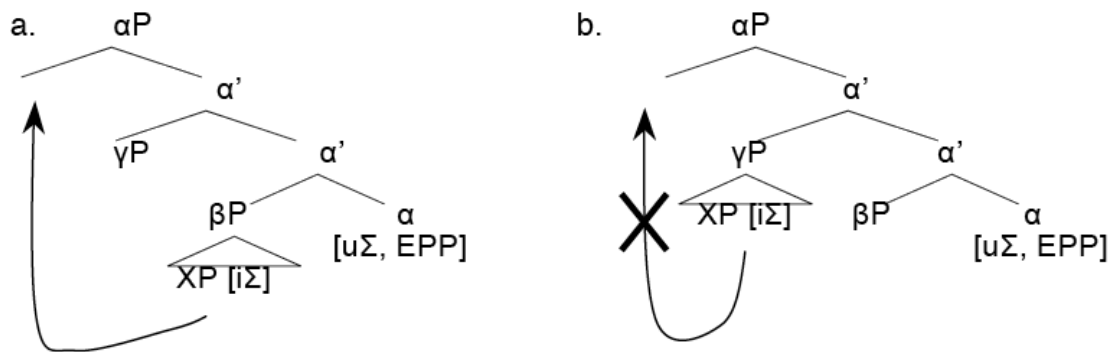
For the account to work, Larson and Harada make the following assumptions: along with Ko (2005), they assume that scrambling is triggered by a feature (Σ) on a head (in this case, V). Furthermore, they make the assumption that VP is a linearization domain (LD). Finally, they assume that covert QR is interpreted at the landing site for linearization, but

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that agreement is calculated from where an element is pronounced[144]. Let us consider an example from Larson and Harada to see how the account would work.

(38)
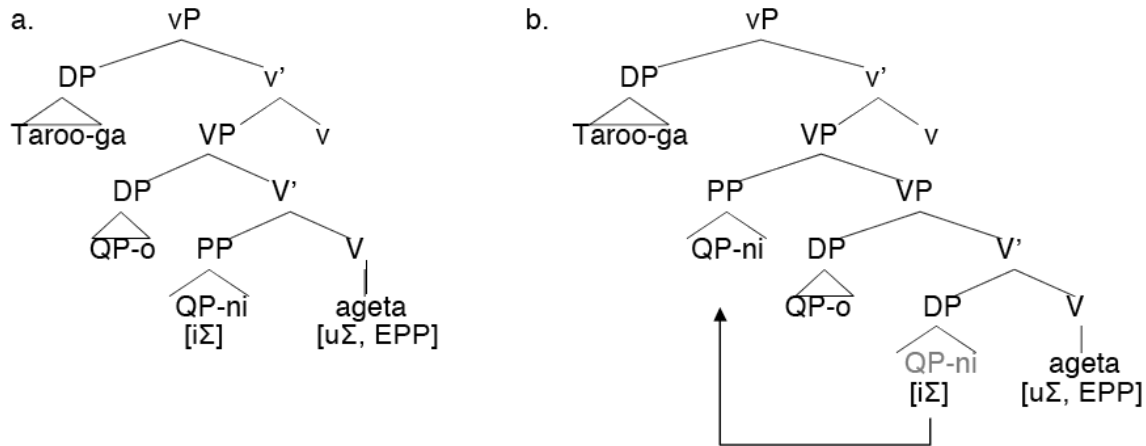
The verb *ageta* is endowed with two features, Σ and EPP. Suppose the *ni*-phrase undergoes scrambling to the edge of VP. We know this movement must happen for the phrase to undergo agreement and yield an interface-legible object, as per earlier discussion. The Accusative-marked DP will neither be able to undergo QR nor scrambling, since it is plainly not in the search domain of the verb (as per Ko 2005). Thus, at the VP node, which is assumed to be a linearization domain, we have the following linearization statement: DP-*ni* >> DP-*o* >> V. All further movement, including QR, will have to preserve the order of the elements in this relative statement, due to a requirement that all linearization statements be consistent. Since no further movement will be allowed to change the order of the initial linearization statement, the scope relation between its elements will be frozen. The ambiguous scope of ACC >> DAT order is derived in the following way. Recall the order is argued to be derived by Light Predicate Raising, with V+DP-*ni* undergoing strong-vacuous rightward raising, the ni-phrase staying in situ. The linearization statement that will result under this scenario is DP-o > DP-ni > V, thus the scope will also be ACC >> DAT (39).

(39)

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[144] Along with Nissenbaum (2000), Larson and Harada take QR to occur in narrow syntax, but with the bottom of the chain, rather than its head, being pronounced.

a. John-ga piza-o Mary-ni ageta
b.
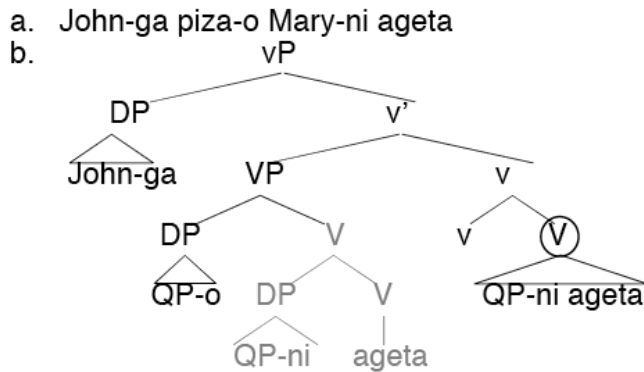
However, the *ni*-phrase can also undergo QR, as in (40). In this case, it is the derived position of the *ni*-phrase that will be relevant for interpretation, but the surface position that will count for agreement. Thus, the linearization statement will be DP-*ni* >> DP-o >> V. All subsequent movement, including QR, will have to preserve this order, thus we derive the DAT >> ACC scope.

(40)

a. John-ga piza-o Mary-ni ageta
b.
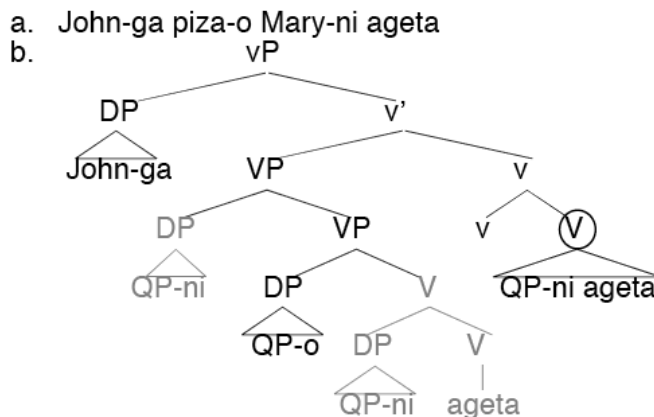
Larson and Harada's account thus derives the Japanese scope freezing facts, familiar since Hoji (1985) and subsequent work: the DAT >> ACC order is scopally frozen, while the ACC >> DAT order is ambiguous between the surface and the inverse scope interpretations. They make a tentative suggestion that just as *ni*-phrases are not case-probes but are plainly concordializing elements, perhaps so are other postpositional phrases. The suggestion has rather far-reaching consequences: "Perhaps affixal Ps in Japanese, although plainly contentful, are in fact never case probes. More generally, perhaps there is no inherent/oblique case in Japanese, but only structural case (nominative and accusative) and concordial arguments like datives, allatives, ablatives, etc. This would have the consequence that all such elements would be obliged to move from their base-merge position to one where they could participate in agreement. It would

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also yield a highly generalized form of scope rigidity, since, as we have seen, scrambling to the edge of VP can be analyzed as the source of scope freezing under Cyclic Linearization theory." (Larson and Harada 2011, p.32)[145]

Having spelled out the details of the Cyclic Linearization account of scope freezing proposed for Japanese, it is interesting to see whether this account can be extended to Russian to account for all the numerous cases of scope freezing found in the language. In the next section I will discuss the predictions that Cyclic Linearization account of scope freezing seems to make and see if these predictions are in fact borne out in Russian.

5.3.2 Larson and Harada (2011) Tested Against Russian Data

Having discussed all the cases where surface scope freezing obtains in Russian what we have seen is that despite the multitude and diversity of syntactic contexts in which the phenomenon occurs, they all arguably have one thing in common: freezing occurs whenever one QP overtly crosses another QP. In Chapter 3 I have stated this in terms of the following Scope Freezing Generalization, repeated below:

(41)   **SF Generalization**:
       Scope freezing always results from overt raising of one QP over another to a c-commanding position.

If we generalize across all cases of scope freezing discussed in Larson and Harada (2011), assuming that their account of *ni*-phrases as concordializing elements and thus their assumptions about the base-generated phrase structure are correct, we derive the following general picture:

(42)

- All cases of scope freezing in Japanese are cases where QP2 scrambles across QP1.
- Cases where no overt crossing takes place (e.g., Light Predicate Raising) are

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[145]Given that the general pattern found in Japanese, with oblique-marked elements typically dominating structurally case-marked elements is observed in many other head-final languages that also exhibit the familiar surface scope freezing, Larson and Harada propose, as a tentative suggestion, that it may be possible to extend their account to these languages as well. They hypothesize that the head-final languages quite generally "are in fact characterized by a restriction on interpretable case features to precisely v and T, with all other apparent "case-marking/case-markers" simply being concordial" (Larson and Harada 2011, p.32). If this is correct, this proposal, together with the restrictions put on movement by Cyclic Linearization of Fox and Pesetsky (2005) and Ko (2005) could offer a rather general account of scope freezing found in head-final languages.

scopally ambiguous[146].

Put this way, these generalizing statements seem to be an accurate description of the scope facts in Russian as well, which strongly suggests that the account provided in Larson and Harada may work for Russian as well. Their account, formalized in terms of Cyclic Linearization theory of Fox and Pesetsky (2005) and Ko (2005), seems to make one prediction, which may help us determine if in fact it may be the right way to think of scope freezing in Russian. The prediction seems to be, as far a I can tell, that crossing of QPs (as seems to be the case in Russian) is not in fact a necessary precondition for scope freezing; any overt movement, which happens before the α-node is reached and the linearization statement is computed may affect which scopes will be possible[147]:

(43) **Prediction 1:**
      Actual crossing of QPs is not required; any overt movement that happens before the first linearization statement is logged at α-node will affect which scope is allowed.

Applied to Russian, the prediction seems to be that whenever overt movement of QP2 takes place to a position below QP1, scope should be frozen as QP1>>QP2, as QP2, which has just been moved overtly, will not also be able to move covertly, thus, its position below QP1 will be logged into the linearization statement and will then have to be preserved.

Consider the following paradigm:

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[146] The following generalizing statement refers only to ACC>>DAT contexts discussed in Larson and Harada (2011) and is not meant to cover all syntactic contexts in the language where no overt movement takes place.

[147] Note that the prediction is actually more complex than it seems. Larson and Harada's account of Japanese scope freezing crucially relies on two assumptions: first, the phrase in Spec, VP is unable to move either overtly or covertly due to being outside of V's search domain and thus will not be attracted by the feature Σ on V that is driving movement. Secondly, the *ni*-phrase, generated low, crucially needs to move to a position in which it will be visible for agreement purposes. In Russian, it is not clear that anything like the latter needs to happen: each of the objects in a ditransitive VP can appear either higher or lower than the other one. However, what seems to be true for both Russian and Japanese is that whenever a QP does move overtly, that same QP cannot then move covertly. Thus, for any given derivation where a QP moves overtly within the VP, that movement should affect scope correspondingly. Furthermore, the former assumption the account crucially relies on, namely the impossibility of the phrase in Spec, VP to undergo overt scrambling doesn't seem to hold for Russian either, as we will see above. These considerations make the prediction stated above somewhat difficult to evaluate. For instance, if it is shown clearly that the phrase in Spec,VP is able to undergo overt scrambling in Russian, does that invalidate the CL account as it is stated, or do we simply assume that this assumption, which is crucial for Japanese, is simply not relevant for Russian?

(44) a. Kakaja-to devočka nakryla   prostynej   každoje kreslo
        Some girl (NOM)   covered   bed-sheet (INSTR)   everychair (ACC)
        'Some girl covered every chair with a bed-sheet' (∃>∀), (∀>∃)

      b. Kakoje-to kreslo   každaja devočka   nakryla   prostynej
        some chair (ACC)   every girl (NOM)   covered   bed-sheet (INSTR)
        'Some chair, every girl covered with a bed-sheet' (∃>∀), *(∀>∃)

      c. Kakaja-to devočka každoje kreslo   nakryla   prostynej
        Some girl (NOM)   every chair (ACC)   covered   bed-sheet (INSTR)
        'Some girl covered every chair with a bed-sheet' (∃>∀), (∀>∃)

In (44a) we have a ditransitive with a spray-load type verb where the subject and the second object are quantificational. The sentence is scopally ambiguous. When the object QP is scrambled above the quantificational subject, the sentence is disambiguated, with only the surface scope interpretation being available (44b). Let us consider this sentence from the point of view of the Cyclic Linearization account. On standard assumptions, at the point when the first linearization statement is computed and logged (VP-node), the subject is not yet present; therefore, the relative order of subject and object phrases is not regulated at that point. On the assumption that scrambling of the object QP across the subject QP takes place before the next linearization statement is computed and logged, we predict the lack of ambiguity of (44b): the object scrambles overtly, changing the order to QP2>>QP1, which is then logged into a linearization statement and cannot be changed at further cycles of movement. At this stage, the CL account and the SF Generalization in (43) are indistinguishable in that both predict the sentence in (44b) to be surface scope frozen[148]. What seems to distinguish between the two is the sentence in (44c): SF Generalization clearly predicts that since no crossing of QPs takes place in this example, the sentence should be scopally ambiguous, and it is. Cyclic Linearization, on the other hand, seems to predict the lack of ambiguity for this example: the object QP undergoes movement before the linearization statement is logged at the CP node. Since this movement didn't change the order of QPs, the linearization statement will be QP1>>QP2. Further movement should then not be able to change the relative order of the two QPs, resulting in frozen surface scope. A related prediction the CL account makes, as far as I can tell, is this:

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[148] Larson (p.c.) points out that Larson and Harada did not consider cases of subject-object interaction (except for when the subjects occurred inside the VP) and thus their account as stated is not intended to cover them. However, when the account in transferred to Russian, the above situation does seem to be one to which the CL account can be extended and about which predictions can be made.

(45) **Prediction 2:**
Scope freezing should be observed in a situation in which both object QPs move overtly, but do not cross.

Consider the situation. If both QP1 and QP2 move overtly, by assumption, they will not then be also able to move covertly. Thus, the ordering of QPs that will be logged at the VP node will be QP1>>QP2>>V. All subsequent movement will then have to preserve this order. As Larson and Harada (2011) note, according to Ko (2005), a situation where a QP in Spec,VP position moves is impossible, as the phrase in the specifier position will not be within the verb's search domain and will thus not be able to be attracted by the verb's feature (Σ). As it happens, moving both objects, the one arguably in Spec,VP included, to a position preceding the verb is perfectly acceptable in Russian. This allows us to test the above prediction and evaluate whether crossing of QPs is in fact a necessary precondition for scope freezing. Consider the sentences in (46) first, which we have previously discussed as our examples of a true spray-load alternation in Russian.

(46) a. Vanja zalil   kakoje-to toplivo   v každyj bak
      Vania poured   some gas (ACC)   into every tank (ACC)
      'Vania poured some gas into every tank'   ($\exists>\forall$), ($\forall>\exists$)

   b. Vanja zalil   kakoj-to bak   každym vidom topliva
      Vania poured   some tank (ACC)   every type of gas (INSTR)
      'Vania filled some tank with every type of gas'   ($\exists>\forall$),*($\forall>\exists$)

   c. Vanja   kakoje-to toplivo   v každyj bak   zalil
      Vania   some gas (ACC)   into every tank (ACC) poured
      'Vania poured some gas into every tank'   ($\exists>\forall$), ($\forall>\exists$)

   d. Vanja kakoj-to bak   každym vidom topliva   zalil
      Vania some tank (ACC)   every type of gas (INSTR)   poured
      'Vania filled some tank with every type of gas'   ($\exists>\forall$),*($\forall>\exists$)

We can see that the order of internal arguments that was ambiguous (46a) before both of the QPs scrambled overtly to a pre-verbal position remains ambiguous after both QPs undergo movement (46c). The order that was frozen (46b) remains frozen after both QPs move (46d). As was argued before, the order in (46b) where scope is frozen is likely a derived order, where the lower QP has scrambled overtly above the higher one. If this is correct, the overt movement of QPs to a pre-verbal position continues to reflect this crossed order in (46d). Thus, the fact that scope is frozen in (46d) is actually predicted both by the SF Generalization and the CL account of Larson and Harada (2011). What differentiates between the two is (46c). On my assumptions the scopal ambiguity of the example in (46a) is a reflection of the fact that the order of internal arguments is the base

generated one. Thus, the sentence in (46c) represents a situation where the two QPs have moved from their base-generated position to a pre-verbal position without changing their relative order. The SF Generalization predicts that this example should be scopally ambiguous, as the QPs have not crossed. If my reasoning regarding the predictions that the CL account makes for Russian is correct, the example in (46c) should actually be scope frozen, since both QPs have moved overtly, and will thus arguably not be able to move correctly again before their ordering is logged into a linearization statement at the VP node. As we see, the example is in fact ambiguous, falsifying this prediction. Thus, once again the Russian data seems to be able to differentiate between the SF Generalization and the CL account. To show that this situation is quite general, consider another example from reflexive monotransitives (47):

(47) a. Maša zarazilas'   [kakoj-to bolezn'ju]   [ot každogo pacienta]
          Masha infected**REFL**   [some illness]**INSR**   [from every patient]**ACC**
          'Masha got infected with some illness by every patient'   (∃>∀), (∀>∃)

      b. Maša zarazilas'   [ot kakogo-to pacienta] [každoj bolezn'ju]
          Masha infected (REFL) [from some patient] (ACC) [every illness] (INSTR)
          'Masha got infected with every illness by some patient'   (∃>∀),*(∀>∃)

      c. Maša   [kakoj-to bolezn'ju]   [ot každogo pacienta]   zarazilas'
          Masha [some illness] (INSTR) [from every patient] (ACC)   infected (REFL)
          'Masha got infected with some illness by every patient'   (∃>∀), (∀>∃)

      d. Maša [ot kakogo-to pacienta]   [každoj bolezn'ju]   zarazilas'
          Masha [from some patient] (ACC)   [every illness] (INSTR) infected (REFL)
          'Masha got infected with every illness by some patient'   (∃>∀),*(∀>∃)

As we see, example (47a) is ambiguous, suggesting it represents the base-generated order of arguments. (47b) is surface scope frozen, which for me points to the derived, crossed order of arguments. (47d), where the order is the same as in (47b) is arguably also derived, with the superficially leftmost QP having moved and crossed the rightmost QP. Thus, both the SF Generalization and the CL account predict it to be scopally frozen, which it is. Example (47c), on the other hand, arguably represents the original order of arguments, both of which have moved to a pre-verbal position without having changed their relative order. Thus, the SF Generalization predicts that this sentence will remain scopally ambiguous. The CL account, on the contrary, predicts that scope in this sentence will be frozen. This is due to the fact that both QPs have moved overtly and will arguably not be able to move again covertly, thus their relative order QP1>>QP2>>V will be logged into a linearization statement at VP node and it should not be possible to reverse this order at the later stages of the derivation.

Finally, despite the fact that the CL account seems to be able to account for the general situation with Russian scope freezing (e.g., scope freezing with overt crossing of QPs, lack of scope freezing when there is no crossing), there is a subset of data that the account does not seem to be able to explain. Specifically, the account doesn't seem to have anything to say about cases of scope freezing found with Long Distance scrambling of QPs. Consider a schematized sentence in (48).

(48)   [$_{CP1}$ [$_{TP1}$ QP$_1$ [$_{VP1}$ intensional V$_1$ [$_{CP}$ that [$_{TP2}$ subject [$_{VP2}$ V$_2$ QP$_2$ QP$_3$]]]]]]

There are three linearization nodes between the QP1 and QP3/QP2: VP2, CP and VP1. For Cyclic Linearization, it is the initial cycles of the derivation that are important, with the linearization statement that was logged at the first linearization node having to be preserved at further nodes. It is not clear how the relation between QP1 and QP3, for instance, could be formalized with respect to the linearization statements. Which linearization statements should be considered? Do we disregard the initial statements since the QP1 is not present at that point in the derivation? If so, do we start with the linearization statement that is logged at the CP1 node? But in that case, is it still meaningful to say that the requirements imposed by the CL theory are observed at that point, given that the derivation is complete and there is no further movement to consider? These questions would have to be answered for the account to be considered general enough to cover the LDS cases in which scope freezing is observed. Thus, the CL account, it seems, would have to treat cases of scope freezing that obtain with Long Distance Scrambling as an entirely unrelated phenomenon, in need of a separate account. However, the scope freezing that we find with LDS fits perfectly into the SF Generalization: scope freezing obtains whenever the lower QP scrambles overtly across the higher QP, with cases where the lower QP scrambles to a position below the QP in the upper clause remaining ambiguous. Thus, the CL account does not seem to be general enough to account for all instances of scope freezing in Russian. The account, proposed in Chapter 3, which is crucially based on the SF Generalization, is[149].

5.4 Significance of Russian Scope Data for Cross-linguistic Investigation of Quantifier Scope

Although Bruening (2001) is a highly articulated account that makes very clear predictions for English as well as other languages, Bruening himself never attempted to

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[149] Without working through the details of the relevant examples in Japanese in this Chapter, for space reasons mostly, it seems to me that, adopting Larson and Harada (2011) assumptions about structural relations in Japanese, the account I propose in Chapter 3 is able to account for all the cases of scope freezing found in English and in Japanese, thus it seems to have rather wide cross-linguistic applicability. I will leave it for future research to see if the account can handle scope freezing in other languages, such as German and Korean.

extend his account to cover cross-linguistic data on scope freezing. Applying his account to Russian scope freezing to see how it fares with respect to the wealth of data covered in this thesis is justified insofar as the parallelism between the two languages with respect to quantifier scope and scope freezing is indeed striking and insofar as previous literature has already done exactly that, claiming it provides an adequate account of Russian data (Stepanov and Stateva 2009). Larson and Harada (2011), which is an account of scope freezing found in Japanese with interesting consequences for head-final languages generally, was also not meant to account for languages such as Russian and so an attempt to extend it to Russian on my part was prompted by the striking similarity in the description of syntactic contexts in which scope freezing obtains in the two languages. Bobaljik and Wurmbrand (2012), on the other hand, is an account that purports to explain the distribution of scope fluidity and scope rigidity cross-linguistically, relying crucially on the availability of overt displacement operations such as Scrambling. In this respect, it is a highly relevant account that needs to be discussed in the context of Russian data presented in this thesis, to see whether the account has the cross-linguistic predictive power it set out to have, with Russian arguably being the perfect testing ground for this account.

5.4.1 Bobaljik and Wurmbrand (2012): An Overview of the Account

Bobaljik and Wurmbrand (2012) is a syntactic account that purports to explain, among other things, the partial inverse correlation according to which the availability of scrambling in a language appears to go hand in hand with restrictions on quantifier scope. Thus, if a language freely allows scrambling, it is expected that the scope relations in the language will be limited to those that can be expressed overtly, mostly due to Economy considerations[150]. The paradigmatic example of this correlation, which is at the heart of Bobaljik and Wurmbrand's account, is the difference in scope possibilities between English on the one hand, and German and Japanese on the other. English is a language without Scrambling, which means that inverse scope relations between the object and the subject, for instance, cannot be represented transparently through word order, and so the covert operation of Quantifier Raising (QR) that changes scope relations is allowed to take place since there is no better, more economical derivation representing scope overtly. Japanese and German, however, are scrambling languages, and so, the authors argue, inverse scope of the object over the subject can be represented transparently by overtly displacing the object to a position above the subject, therefore Economy

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[150] Note that in this sense Bobaljik and Wurmbrand (2012) shares the spirit of Ionin's (2001) account, where the basic idea is also that the availability of overt movement restricts covert movement (as well as reconstruction).

considerations preclude the application of QR, which would derive the same scope relations through covert movement. The basic facts are represented in (49) below[151].

(49) a. Some toddler read every book.   (∃>∀), (∀>∃)

b. Dareka-ga   subete-no   hon-o   yonda.
   someone (NOM)   all (GEN)   book (ACC)   read
   'Someone read all the books.'   (∃>∀), *(∀>∃)

c. Subete-no   hon-o   dareka-ga   yonda.
   all (GEN)   book (ACC)   someone (NOM)   read
   'Someone read all the books.'   (∀>∃) possible

To account for such facts, Bobaljik and Wurmbrand (2012) propose a soft universal economy constraint, *ScoT*, which regulates the relation between word order and scope, starting, crucially, with an LF representation and then finding the appropriate PF to match given LF.

(50) ***Scope Transparency (ScoT)***
     If the order of two elements at LF is A»B, the order at PF is A»B.

Being a soft constraint, *ScoT* should be respected to the extent language's resources allow for it, and violated only as a last resort. Thus, in English, *ScoT* is violated, since there is no *ScoT*-obeying way of representing inverse scope relations[152]. In German and Japanese, however, a derivation in which QR has applied represents an unforced violation of *ScoT*, and given that there is a *ScoT*-obeying alternative derivation, the derivation with QR is excluded. Consider the two tableaux in (51), which formalize these facts.

(51)

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[151] The authors' original notation and commentary on the examples is preserved.

[152] It is important to make clear that in simple English cases where the relative scope of object and subject QPs is considered, Bobaljik and Wurmbrand take passive sentences as well as sentences in which the object is topicalized to not be in competition with SVO sentences. With passives, the authors state, the morphology shows rather clearly that we are not dealing with the same numeration, and Topicalization for them is an instance of movement that necessarily has an effect on Information Structure, which they treat as part of LF (thus also within the purview of *ScoT*), and so Topicalization is argued to not be "free" movement in the sense that Scrambling is.

German, Japanese scrambling

	LF	PF	ScoT
a. √	B»A»t$_B$	B»A»t$_B$	√
* (QR)	B»A»t$_B$	A»B	*
b. √	A»B	A»B	√
* (Reconstruction)	A»B	B»|A»t$_B$	*

English

	LF	PF	ScoT
a. * Scrambling	B»A»t$_B$	*B»A»t$_B$	√
√ (QR)	B»A»t$_B$	A»B	*
b. √	A»B	A»B	√
* Scrambling	A»B	*B»A»t$_B$	*

In addition to QR and Scrambling, the (b) portions of the tableaux also show how the system handles reconstruction. In English, the A>>B LF is matched by an A>>B PF, and, as the authors put it, there is nothing more to say about these cases. In German and Japanese, however, the LF in which scope corresponds to the base order must also be compared to a PF in which the object has scrambled above the subject. This represents the reconstruction cases. This LF-PF pairing represents an unforced violation of *ScoT*, and thus should be banned. This goes against the facts, as it is well known that both German and Japanese allow reconstruction of (short) scrambling[153]. However, Bobaljik and Wurmbrand (2012) treat all relevant cases as instances of semantic reconstruction, and thus take the tableaux above to correctly represent the situation in these languages.

The *ScoT*-based account of cross-linguistic differences in scope is thus an attractive alternative to accounts that posit, sometimes implicitly, a parametric difference between languages such as English on the one hand, and German/Japanese on the other. According to these accounts, scope is projected from surface structure (without QR) in German and Japanese; thus they assume that there is a "QR parameter" that languages differ on. Bobaljik and Wurmbrand's account, on the other hand, predicts that QR is in fact available in *all* languages, even in those that appear to be scope-frozen, and that

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[153] See Lechner 1996, 1998a, 1998b, Frey 1989, 1993.

scope rigidity is a property not of languages, but of constructions[154]. Thus, on this account, scope is predicted to be fluid in those constructions where overt movement is restricted[155]. This is aptly demonstrated with the Inverse Linking Construction (ILC) in German, discussed originally in Sauerland (2001) and Sauerland and Bott (2002). Consider the data in (52).

(52) *Context:* Two friends are talking about last night, when one of them visited Peter, who's crazy about jazz. On that occasion, Peter played a record by Miles Davis, a record by John Coltrane, and a record by Fred Frith.

a. Peter   hat eine Platte jedes Musikers   aufgelegt.
   Peter   has a/one record (A)   every$_{GEN}$ musician (B) played
   'Peter played a record by every musician.' (∃>∀), (∀>∃)

b. *Peter hat   jedes Musikers   eine Platte   aufgelegt.
    Peter has   every$_{GEN}$ musician (B) a/one record (A)   played

      Bobaljik and Wurmbrand note that since overt movement of the Genitive Phrase in ILC in German is prohibited, covert QR must be allowed. According to the discussion in Sauerland (2001) and Sauerland and Bott (2002) this is indeed the case. Moreover, the inverse scope in (52a) is available even without the special topic-focus intonation that generally makes inverse scope available in German. What is particularly interesting about the data in (52), as the authors note, is the observation that movement of Genitives is apparently allowed, so long as it is covert. The data in (52) thus provides strong initial support for the account that relates quantifier scope distribution to word order possibilities. Even more striking evidence supporting this account comes from the following facts from Sauerland and Bott (2002).

(53) a. Peter   hat eine Platte   von jedem Musiker   aufgelegt.
      Peter   has a/one record (A)   of every musician (B)   played
      'Peter played a record by every musician.' *(∀>∃) (without special intonation)

   b. Peter hat von jedem Musiker   eine Platte   aufgelegt.
      Peter has of every musician (B)   a/one record (A)   played
      'Peter played a record by every musician.'

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[154] I fully endorse this conclusion of the authors and believe that Russian demonstrates its correctness rather unequivocally: while the language on the whole certainly cannot be said to be scope frozen (or scope fluid for that matter), it exhibits contexts where scope is free and quite numerous contexts where it is frozen. As such, Russian data strongly support Bobaljik and Wurmbrand's general conclusion and argues forcefully against the QR parameter.

[155] Note that *ScoT* is not purported to rule in illicit derivations in which overt movement is ruled out by hard constraint such as island constraints or clause-boundedness. It is only expected to regulate choices among convergent derivations.

The example in (53a) also represents an instance of Inverse Linking in German, only with a Prepositional Phrase instead of a Genitive. In this construction, unlike the one in (52a), inverse scope is only available under the special intonation marking. As noted by Bobaljik and Wurmbrand, this difference between the two constructions is entirely unexplained on other accounts, but receives a natural explanation in their framework once we take into consideration the movement potential of the von-PP in this construction. Specifically, as demonstrated in (53b), the Prepositional Phrase in this construction can be moved overtly, unlike the Genitive in (52b). Thus, given that overt movement is allowed, covert movement QR is ruled out by *ScoT*. The tableau is (54) formalizes the account of the scope differences between the Prepositional Phrase ILC and the Genitive Phrase Inverse Linking: the availability of scrambling in the former leads to the ban on QR whereas the impossibility of overt movement in the latter allows the violation of *ScoT* to be tolerated[156].

(54)

PP

	LF	PF	ScoT
√	B»A	B»A»t$_B$	√
* (QR)	B»A	A»B	*

Gen

	LF	PF	ScoT
N/A	B»A	B»A»t$_B$	√
√	B»A	A»B	*

While the above cases were accounted for with the help of the *ScoT* constraint alone, the majority of cases handled in this framework are actually explained through the interaction of *ScoT* with other Economy conditions. In fact, such constraint interaction and the particular outcome, dubbed the ¾ Signature, are argued by the authors to constitute the main reason this account must be on the right track. The ¾ Signature arises as a result of the interaction of soft Economy constraints, one of which is *ScoT*: given two LF choices and two PF choices, out of the four logical possibilities exactly three are said

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[156] Bobaljik and Wurmbrand address the issue of whether the von-PPs are indeed moved from within the noun phrase or are base-generated within the VP. They present a number of arguments in favor of the movement account, among them the fact that the dislocation of a von-PP is only possible when the noun phrase does not include a Genitive specifier, which is difficult to explain on the base-generation account. See the paper for additional arguments.

to be attested. Moreover, the authors argue that paying careful attention to which of the four possibilities are attested and which one is excluded necessarily leads to the conclusion that one needs to start with the LF representation and determine the best PF match for it rather than the other way around. One of the key paradigms providing support for the account that displays the ¾ Signature is argued to be the English phenomenon of *there*-insertion. Let us examine the data.

The scope contrast in question is exemplified by the examples in (55a) and (55b). The existential QP in (55a) can either take scope above the raising predicate such as *likely*, or below it, in its reconstructed position. However, if overt raising of the QP fails to apply and an expletive *there* is inserted instead, for some reason, the scope of the QP above the raising predicate is excluded, so apparently QR cannot apply. As noted by the authors, this is rather surprising, given that existentials are known to be freer in their scope-taking abilities than universal quantifiers.

(55)   a. (Exactly) one student is likely to be absent. (∃» *likely)*; (*likely* » ∃)
        b. There's likely to be (exactly) one student absent. *(∃ » *likely)*; OK (*likely* » ∃)
        c. *Is likely to be (exactly) one student absent.

The account of these facts, developed in Bobaljik (2002) and adopted by the authors, crucially relies on the observation that English is a language, which requires that its finite subject position be filled overtly (the classic EPP). The EPP is taken to be a purely phonological requirement, rather than a condition on narrow syntax. It is a hard constraint, violation of which necessarily leads to ungrammaticality (55c). There are two ways of satisfying the EPP in English: overt movement into the subject position, or insertion of the "dummy" element, the expletive *there*. Crucially, the authors assume that *there* is not part of the syntactic numeration, but is inserted at PF only to satisfy the EPP. Furthermore, expletive insertion is taken to be a costly operation that applies only as a "last resort", a notion that is formalized with the constraint called DEP.

(56)   **DEP**
        Do not insert expletive pronoun.

Having these two constraints allows the authors to explain the above scope facts. The interaction of these constraints is schematized in the tableau in (57).

(57)

English raising

		LF	PF	ScoT	DEP
a.	√	∃ » *likely*	∃ » *likely*	√	√
	* (QR)	∃ » *likely*	*there likely* » ∃	*	*
b.	√	*likely* » ∃	*there likely* » ∃	√	*
	√ (reconstruction)	*likely* » ∃	∃ » *likely*	*	√

When the QP takes scope above the raising verb, the only PF candidate that will be a possible match for this LF is the one in which the QP raises into the subject position overtly (the first line of (57a)), thus satisfying both constraints. The candidate in which the expletive is inserted and QR of the QP takes place violates both *ScoT* and DEP, and thus is excluded. However, when we consider the LF on which the QP takes scope below the verb, both PFs we need to consider will be found to be possible expressions of that LF. Consider first the top line of (57b). This is the situation where the QP does not raise overtly and so the expletive is inserted. This incurs a DEP violation but *ScoT* is not violated. If, on the other hand, the QP raises to the subject position overtly, DEP will be satisfied, but at the expense of violating *ScoT* (bottom line of (57b)). Given that neither of these two candidate PFs is better than the other (since each violates one constraint), both are tolerated and thus optionality arises. This account of scope facts in the raising construction in English demonstrates exactly how the ¾ Signature arises: the candidate PF that violates both constraints will always be excluded, the candidate that obeys both will always be accepted and whenever the two candidate PFs that are in competition with each other each violate one constraint, both will be considered possible expressions of the LF in question.

Other phenomena, which according to the authors exhibit the ¾ Signature and are thus amenable to the analysis they propose are the English Focus and Heavy NP Shift, the Dutch A-Bar Scrambling as well as the interaction between German Scrambling and Information Structure. This highly articulated account thus covers a lot of empirical ground and makes very clear predictions for other languages. In the following section I will test these predictions against the data from Russian, another language that allows Scrambling and which thus falls directly within the purview of this analysis (although the authors do not discuss it). I will conclude that this account cannot account for the Russian scope data either as it is falsified in a number of contexts.

5.4.2 Testing Bobaljik and Wurmband's (2012) Account Against Russian Data

5.4.2.1 Scope in Russian SVO Sentences

The first prediction the account makes for Russian is that since Scrambling is freely available in this language, SVO sentences should be scope rigid in the same way German and Japanese SVO sentences are. This prediction, however, is not supported by the data. SVO sentences in Russian with a quantificational subject and a quantificational object are scopally ambiguous (58a), even though overt scrambling of the object over the subject is possible (58b).

(58) a. Dva   studenta   pročitali   každuju   knigu
       Two   students (NOM)   read (PST.PLR.)   every   book (ACC)
       'Two students read every book' (∃>∀), (∀>∃)

   b. Dve   knigi   každyi student   pročital
      Two   book (ACC)   every student (NOM)   read (PST.SG)
      'Two books, every student read' (∃>∀), */??(∀>∃)

We have seen extensive evidence suggesting QR in Russian is freely available even though it is a Scrambling language. To briefly remind the reader, one of the arguments in favor of the QR view in Russian is the availability of Weak Crossover in sentences such as the following:

(59)   *Mašina   **ego**i   roditelej   razdražajet   [**každogo podrostka**]i.
         Car (NOM) his   parents (GEN) annoy(PRES.SG) every teenager (ACC)
         '*His_i parents's car annoys [every teenager]_i'

The ungrammaticality of the example on the bound variable reading suggests that covert movement of the object QP takes place and creates the WCO configuration. For a variety of other arguments supporting the conclusion that Russian SVO sentences are scopally ambiguous, see Chapter 2 of this thesis.

5.4.2.2 Scope in Inverse Linking Contexts

The account also makes a clear prediction that scope should be fluid in constructions where overt movement is restricted (even in languages where scope is generally frozen). The correctness of this prediction has been convincingly demonstrated with the Inverse Linking facts from German. This prediction should of course hold for Russian as well. As it happens, Russian Inverse Linking also provides a testing ground for this prediction. Consider the following examples: (60a) shows that an Inverse Linking configuration is possible in Russian. The fact that the overt movement of the embedded Genitive QP is

impossible (60b) suggests, on Bobaljik and Wurmbrand's account, that inverse scope in (60a) should be available. The prediction is indeed borne out: the sentence allows an interpretation on which the embedded QP takes scope over the embedding existential, which is further supported by the availability of the bound variable reading. Thus the ILC facts in Russian seem to be perfectly aligned with the German facts, supporting the account.

(60) a. [Kakoj-to žitel'   [každogo iz   gorodov$_j$]]   preziraet ego$_j$.
        Some dweller (NOM)   every   from cities (GEN) despises it (ACC)
        'Someone from every city despises it'   (∀>∃)

      b. *[Každogo iz gorodov] [kakoj-to žitel']   preziraet ego.

The above data is incomplete, however, in that Inverse Linking in Russian is also possible with the preposition preceding the embedded QP, rather than occurring inside it as in (60a) above. Such Preposition-QP ordering, however, appears to favor the wide scope for the outer quantifier. (The same is also true for Ukrainian). As can be seen in (61b), overt extraction of the embedded PP is also banned in Russian. Thus, on Bobaljik and Wurmbrand's account we expect inverse scope in (61a) to be available just as it is in (60a). However, this is not the case: the inverse scope interpretation does not seem to be available at all, and so the bound variable interpretation of the pronoun is similarly unavailable[157].

(61) a. *[Kakoj-to žitel'   [iz   každogo goroda$_j$]]   preziraet ego$_j$.
         Some   dweller (NOM) from every city (GEN)   despises it (ACC)
         'Someone from every city despises it'   *(∀>∃)
      b. *[iz každogo goroda$_j$] [kakoj-to žitel'] preziraet ego$_j$.

Consider next the following pair of examples, which are also instances of Inverse Linking. Extraction of adnominal genitives is prohibited in Russian ((62b) and (63b)). Thus we expect inverse scope to be freely available in these examples. Inverse scope appears to be quite difficult, yet still possible in (62a) and (63a).

(62) a. [Kakoi-to student]   čital [knigi každogo professora]
         Some student (NOM)   read [books [every professor](GEN)] (ACC)
        'Some student read books of every professor' ??(∀>∃)

      b. *[Kogo]$_i$ kakoi-to student   čital   [knigi t$_i$]?
          [Whose] (GEN)   some student(NOM)   read   books (ACC)

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[157] The star in (61a) refers to the impossibility of the bound variable reading, as the example is grammatical on the surface scope interpretation.

(63)   a. Petia kupil [kakuju-to plastinku [každogo muzykanta]]   ?(∀»∃)
        Peter bought [some record [every musician] (GEN)] (ACC)
        'Peter bought a/some record of/by every musician'

        b. *[Kogo]ᵢ   Petia kupil   [kakuju-to plastinku tᵢ]?
           Whose (GEN)   Peter bought   some record (ACC)

Now, let us take a look at another pair of examples, which are also instances of Inverse Linking in Russian:

(64)   a. [Proletarii [vsex stran]],   objediniajtes'!
        [Proletarians [all countries] (GEN)] (NOM)]   unite
        'Proletarians of all countries, unite!' √ (all > some)
        b. *vsex stran proletarii objediniajtes!

(65)   a. U Miški   est'   [igruška [v každoj komnate doma]]
           At Mishka (GEN)   is   [toy] (NOM) [[in [every room] (GEN)] house] (ACC)
        'Mishka has a (different) toy in every room of the house'   √ (every > some)

        b. [V každoj komnate doma]   u   Miški   est'   [igruška]
           In every room (GEN) house (ACC) at   Mishka(GEN) is   toy(NOM)
        'In every room of the house, Mishka has a (different) toy'

For both (64a) and (65a) the most natural interpretation is the inversely linked one, arguably derived by QR. Given the availability of this interpretation for both sentences, Bobaljik and Wurmbrand's account makes the same prediction for these examples, namely that the overt displacement of the inversely linked phrase should be unavailable. However, while this is indeed the case in (64b), overt movement of the inversely linked phrase in the latter case is perfectly acceptable, as shown in (65b). Thus, we have now seen pairs of sentences that behave the same with respect to overt extraction yet exhibit different scope possibilities (such as (60) and (61)). There are examples, that behave as predicted by B&W account by being ambiguous where overt movement is prohibited, but where the inverse scope reading is much more difficult to get that in numerous other examples (such as (62) and (63)), with the account having nothing to say about such gradient contrasts. We have also seen pairs of examples that have the same scope possibilities (such as (64) and (65)), yet differ with respect to the possibility of overt extraction. Bobaljik and Wurmbrand's account therefore, highly articulated as it is, does not appear to be fine-grained enough to make correct predictions that would differentiate between these examples with respect to their scope-taking potential.

5.4.2.3 Scope in Russian Ditransitives

An interesting question that Bobaljik and Wurmbrand do not discuss is how their account fares with regard to the English double object construction exemplified again in (66b).

(66) a. The teacher gave **a book** to **every student**.   (∃ > ∀), (∀ > ∃)
     b. The teacher gave **a student every book**.   (∃ > ∀), *(∀ > ∃)

As far as I can tell, Bobaljik and Wurmbrand's account predicts that given frozen scope in (66b), overt movement of the QP *every student* should be freely available. This, however, is absolutely impossible[158]:

(67) *The teacher gave **every book a student.**

Given that in Russian overt movement of argument phrases in ditransitive constructions is almost always possible (except for those few cases where there are no alternations, with only one order being possible), Bobaljik and Wurmbrand's account predicts that scope should be frozen in *all* alternations that allow overt reordering of arguments. The prediction in not borne out: as we already know from Chapter 4, with some Russian predicates one of the alternations is scope frozen and the other is scope fluid, whereas with other verbs both alternations are scope fluid. Let us consider the latter cases first, exemplified here in (68) and (69). The order of the arguments is free, which means scope should be frozen. However, each ordering is scopally ambiguous, contrary to the account's predictions:

(68) a. Maša vyčerknula   kakogo-to druga   iz každogo zaveščanija
        Masha crossed.out some friend (ACC)   from every will (GEN)
        'Masha crossed out some friend from every will'   (∃ > ∀), (∀ > ∃)

     b. Maša   vyčerknula   iz kakogo-to zaveščanija   každogo druga
        Masha   crossed out   from some will (GEN)   every friend (ACC)
        'Masha crossed out from some will every friend'   (∃ > ∀), (∀ > ∃)

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[158] Furthermore, given that scope is ambiguous in the Prepositional Dative construction, the account also predicts that overt movement of the prepositional phrase should be disallowed, which is similarly contrary to fact:

(i)   The teacher gave to **every student a book.**

The movement in (i), however, constitutes Heavy NP Shift, which the authors account for by invoking the focus-changing potential of this construction. It therefore remains to be seen whether this particular example constitutes a real problem for the account.

(69) a. Maša   razmestila   kakoje-to soobšenije v každoi gazete
       Masha   posted   some message (ACC) in every newspaper (PREP)
       'Masha posted some message in every newspaper'   ($\exists > \forall$), ($\forall > \exists$)

      b. Maša   razmestila   v kakoi-to gazete   každoje soobšenije
       Masha   posted   in some newspaper (PREP)   every message (ACC)
       'Masha posted in some newspaper every message'   ($\exists > \forall$), ($\forall > \exists$)

Now consider the examples in (70). Here, the order of the arguments is again free, but only one of the orders is scopally ambiguous, whereas the other is surface frozen. Thus, while in (70a), where the Accusative object precedes the Dative object, the scope is ambiguous, in (70b), where the order of the objects is reversed, the scope is surface frozen[159].

(70) a. Maša   prostila kakoje-to predatelstvo   každoj podruge
       Masha   forgave some betrayal (ACC)   every girlfriend (DAT)
       'Masha forgave some betrayal to every girlfriend'   ($\exists > \forall$), ($\forall > \exists$)

      b. Maša   prostila kakoj-to podruge   každoje predatelstvo
       Masha   forgave some girlfriend (DAT)   every betrayal (ACC)
       'Masha forgave some girlfriend every betrayal'   ($\exists > \forall$), *($\forall > \exists$)

We see then that Bobaljik and Wurmbrand's account does not correctly predict scope distribution in Russian ditransitives. Furthermore, once we consider more data, it becomes clear that even for those cases that are scope frozen (and could thus be claimed to be correctly predicted by the account), the predictions are not fine-grained enough, since along with cases like (70), where the Dative >> Accusative order is scope frozen, there are also cases such as (71) and (72) where the opposite is true, with Accusative >>Dative order being frozen while the Dative >>Accusative is scopally ambiguous.

(71) a. Maša   naučila   kakomu-to fokusu   každogo rebenka
       Masha   taught   some trick (DAT)   every child (ACC)
       'Masha taught some trick to every child'   ($\exists > \forall$), ($\forall > \exists$)

      b. Maša   naučila kakogo-to rebenka   každomu fokusu
       Masha   taught some child (ACC)   every trick (DAT)
       'Masha taught some child every trick'   ($\exists > \forall$), *($\forall > \exists$)

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[159] Note that while there is disagreement in the literature regarding the argument structure in Russian ditransitives, with some accounts positing the Accusative >> Dative base order with the opposite order being derived by movement (Bailyn 1995, 2012 i.a.) and the opposing view arguing for the Dative >> Accusative base order (Dyakonova 2007), almost everyone agrees the two orders are derivationally related (i.e., derived by movement) which makes Russian ditransitives the perfect testing ground for Bobaljik and Wurmbrand's account.

(72) a. Maša   podvergla kakoj-to opasnosti   každogo rebenka
         Masha   subjected some danger (DAT)   every child (ACC)
         'Masha subjected every cjild to some danger'   (∃ > ∀), (∀ > ∃)

      b. Maša   podvergla kakogo-to rebenka   každoj opasnosti
         Masha   subjected some child (ACC)   every danger (DAT)
         'Masha subjected some child to every danger'   (∃ > ∀), *(∀ > ∃)

Finally, at least in some cases where overt reordering is impossible, the inverse scope is very difficult to unavailable (for some readers), which also goes against Bobaljik and Wurmbrand's predictions, since sentences like these where overt movement is disallowed are predicted by the account to be scopally ambiguous. Additional problem for the account, already encountered with Russian Inverse Linking, is the fact that along with examples like (73), there exist examples like (74), where a partitive phrase is used with the verb's lower argument. The problem again is that here the overt reordering of argument phrases is just as impossible as it is in (73), yet inverse scope is readily available. As far as I can tell, Bobaljik and Wurmabrand's account cannot explain such contrasts.

(73) a. Maša   posledovala   kakomu-to sovetu   každogo prepodavatelia
         Masha   followed   some advice (DAT)   every instructor (ACC)
         'Masha followed some advice of every instructor'   ??/*(∀>∃)

      b. *Maša   posledovala   kakogo-to prepodavatelia   každomu sovetu
         Masha   followed   some instructor (ACC)   every advice (DAT)
         'Masha followed some instructor's every advice'

(74) a. Maša   posledovala   kakomu-to sovetu   každogo iz prepodavatelej
         Masha   followed   some advice (DAT)   every from instructors (ACC)
         'Masha followed some advice from every instructor' (∀>∃)

      b. *Maša   posledovala   kakogo-to iz prepodavatelej   každomu sovetu
         Masha   followed   some from instructors (ACC)   every advice (DAT)
         'Masha followed one of the instructor's every advice'

We see then that ditransitives, which Bobaljik and Wurmbrand (2012) appear to make clear predictions about, are problematic both on account of English as well as Russian data. One way in which Bobaljik and Wurmbrand could respond to challenges from Russian data in particular is by invoking a language-specific or construction-specific constraint in each syntactic context where the data appears problematic and argue that conflicting constraint requirements lead to the availability of QR in that context. Given the many contexts in which QR is available in Russian, this explanation seems to me to lose its explanatory power. However, if that explanation is to be found satisfactory, the

particular ¾ Signature effect should be observed: that is, out of 4 logical possibilities only 3 should be attested. That doesn't seem to be the case in many of the contexts reviewed, as far as I can tell.

5.5 Conclusions

In this Chapter I have shown how uncritically accepting the claim about Russian QR having radically different properties from those found in English have led a number of researchers to arguably mistaken analyses of a number of syntactic phenomena found in the language and resulted in the postulation of generalizations that do not withstand the test of empirical data (Stepanov and Stateva (2009) i.a.). One of the strongest motivations for this discussion on my part was showing how these claims have perpetuated the myth of Russian as a scopally frozen, QR-less language that differs radically from English, leading other researchers to take such claims for granted and build on them, thus perpetuating the myth even further. I have then argued that a Superiority-based account of Scope Freezing (Bruening (2001)) should not be extended to Russian (as it has been done in Stepanov and Stateva (2009)) for a number of reasons both purely theoretical as well as empirical. Furthermore, if correct, the proposed account of Scope Freezing and the many parallels between English and Russian with respect to scope that were demonstrated in this thesis together raise the possibility that a parallel account of the Scope Freezing effects found in English in the Double Object and the *with*-variant of the Spray-Load construction may be an attractive alternative to the feature-driven account that has been proposed for English in Bruening (2001). This, of course, would implicate similar scope-freezing overt instances of movement in these constructions. A more detailed exploration of the possibility of a similar account of English scope freezing facts and the consequences that this account would have for the proposed structures in English is left for further research, although the general implications are quite clear.

I have also considered a Cyclic Linearization account of scope freezing offered for Japanese in Larson and Harada (2011) and have argued that although the account can explain the distribution of scope and scope freezing data in most of the syntactic contexts discussed for Russian, it does not generalize to all of them. In addition the account seems to make several predictions that are falsified by the Russian data, which suggests that this account, too, should not be extended to Russian.

Finally, I have reviewed the details of an influential recent account of scope freezing provided in Bobaljik and Wurmbrand (2012) and have argued that the account does not make the correct predictions in a number of key syntactic contexts in Russian. For those contexts where the account could be argued to make the right predictions, it nevertheless does not seem to be fine-grained enough to explain the particular details of quantifier scope distribution. Thus, this account, although it appears to provide an attractive explanation of scope freezing effects found in a number of contexts in such

languages as English, German, Japanese and Dutch, nevertheless is falsified by the Russian data. However, I fully share the authors' main insight that there can be no QR parameter that languages differ on and that instead scope rigidity should be viewed as a property of constructions, rather than languages as a whole. Russian data, presented in the previous chapters of this thesis provide strong support for this conclusion.

CHAPTER 6. CONCLUSIONS

6.1 Summary of the Thesis

The idea that there are languages that like to "wear their LF on their sleeves", originally due to David Pesetsky, has fascinated many syntacticians working on various languages. Ionin (2001) has tried to extend this idea to Russian, arguing that the language with so much overt movement must be a language that correspondingly restricts covert movement. In this thesis I have argued first and foremost, relying on empirical evidence from a number of syntactic tests and contexts, that Russian cannot be considered a surface scope frozen language, which due to Ionin's influential work has been a rather broadly accepted conclusion in the field of Russian syntax and beyond. I have amassed evidence strongly suggesting that in what concerns quantifier scope, Russian is, perhaps surprisingly indeed, not at all different from English. Specifically, I have shown that sentences with a quantificational subject and object, for instance, exhibit quantifier scope ambiguity in allowing both surface and inverse scope. I have also shown that the parallelism between the two languages extends all the way to how inverse scope must be derived – the cases that are ambiguous in English due to the covert operation of Quantifier Raising appear to derive their ambiguity in Russian in the same way; in cases where in English the ambiguity is arguably derived through subject reconstruction and short object raising (as evidenced by binding relations, for instance), the same seems to hold of Russian, too.

I have also argued at length for the existence of the Antecedent Contained Deletion construction in the language, which many view as one of the most convincing arguments for postulating the covert operation of QR. The construction, although not exactly identical to the English one in form, nevertheless seems to be identical to the English construction in terms of its syntactic properties. For instance, ACD in Russian can involve CP, rather than VP ellipsis, just as is also possible in English[160] (as shown in Larson (2000)). Another similarity between the Russian and the English ACD is its ability to reconstruct a nonfinite complement (also noted in (Larson 2000)). Thus, some sentences in English can reconstruct a non-finite complement while others can additionally reconstruct a finite CP. Another property of Russian ACD, discussed for English in Sag (1976), Larson and May (1990) and Bruening (2001), is the ability to disambiguate sentences that exhibit *de dicto/de re* ambiguities in intensional contexts. Finally, Russian ACD sentences demonstrate another relevant property, noted in Cecchetto (2004): in sentences ambiguous between the matrix and the embedded interpretation, it is not possible to combine the matrix reading with the distributive reading. If found convincing, the evidence for the existence of ACD that is parallel in

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[160] And in fact, examples of ACD ellipsis involving a CP are also almost identical to the English counterparts in form, as well as in their syntactic properties.

function (and often in form as well) to the English construction, indeed argues strongly for postulating (non-local) QR in Russian.

More evidence used to argue that QR of the English variety must indeed be available in the language comes from the Inverse Linking Construction, Weak Crossover violations as well as from contexts where the previously available inverse scope suddenly disappears due to the context being prohibitive of overt movement, thus proving that QR, being an operation which is constrained much like overt movement, is indeed available in the corresponding ambiguous sentences. Furthermore, I show that Russian QR is constrained by Fox's (1995, 2000) Scope Economy Principle in exactly the same way it is in English. I end Chapter 2, where all of the above tests and arguments are presented, with a brief discussion of other Slavic languages, employing the same syntactic tests, and arguing that these languages cannot be considered scope-frozen either. Thus, as far as Slavic languages are concerned, conclusions about the "surface scope only" status of these languages must be taken with caution, as evidence presented in the thesis suggests that Slavic languages in general are simply not members of the class of scopally rigid languages (if such languages indeed exist). The overall conclusion to be drawn from Chapter 2 is that availability of Scrambling in a language does not entail scope rigidity: Russian, being a Scrambling language, nevertheless allows inverse scope in exactly the same contexts where English does, with the same apparently holding of all the other Slavic languages briefly considered as well.

Next, in Chapter 3, I show that the parallelism between English and Russian is indeed a thoroughgoing one in that the two languages not only show scope ambiguity in the same contexts, but they also show surface scope freezing in the same contexts as well. Thus, just as Larson (1990) and Bruening (2001), among others, argued for the surface scope freezing effect in the double object construction and the *with*-variant of the Spray-Load construction, I show the same contexts to be scope frozen in Russian. I then present evidence that scope freezing obtains in Russian in quite a number of contexts, specifically in ditransitives on one of the two possible orders of the verb's internal arguments, with the bona-fide spray-load alternation, in spray-load type verbs, in what I call "reflexive monotransitives"[161] and finally, in cases of overt displacement of a QP across a higher QP through local and long-distance scrambling. I propose a theory of scope freezing that relies on a key empirical generalization drawn from the data:

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[161] "Reflexive monotransitives" is the name I gave to a Russian construction derived from a ditransitive verb with the help of reflexive morphology that takes one internal argument and one adjunct, in most cases. When the verb's internal argument and the adjunct are both quantificational, this construction exhibits the exact same behavior with respect to scope that is found with Russian ditransitive verbs. See Chapter 4 for a detailed discussion of this construction.

(1) **Scope Freezing Generalization (SFG), revised:**
Scope freezing results when one QP raises over another to a c-commanding position as a result of a single instance of movement.

Thus the one thing unifying all scopally frozen cases in Russian, I argue, is the presence of *overt* raising of a lower QP across a higher one. Scope freezing itself I analyze in terms of a relation $\mathfrak{R}$, established directly between the two QPs in contexts where such QP crossing takes place. Thus unlike previous theories of scope freezing that view the phenomenon either as a relation between a higher probe and a QP goal (Bruening 2001) or as a result of relative ordering of the two QPs with respect to the phase (Harada and Larson 2009, Larson and Harada 2011), my account proposes that in scope freezing cases there exists a special relation between the two QPs themselves, similar to that existing between the two QPs in an Inversely Linked structure, or a binding relation. I propose a possible formalization of this account in the spirit of Stanley and Szabó (2000) and Stanley (2002) whereby the nominal restriction of the now lower QP1 (after overt movement of QP2 across QP1 has taken place) is associated with a domain variable bound by the now higher QP2. This binding relation established due to overt crossing of QPs is what precludes the structurally lower QP1 from raising past QP2, thus accounting for the relative nature of scope in scope freezing contexts, where QP1 is able to undergo further (covert) movement so long as it stays within the scope of the higher QP2 (Larson 1990). I also suggest that the restriction of the domain of the overtly raised QP or the uniqueness presupposition is due to this instance of movement itself, which in many respects is reminiscent of Topicalization. The clear advantage of the proposed account is that it unifies all the various cases of scope freezing found in the language, something that alternative accounts cannot achieve, as far as I can tell.

In Chapter 4, making the SF Generalization my underlying assumption, I use it as a diagnostic tool to probe into ditransitive verbs' argument structure. Thus I discuss scope freezing that obtains with Russian ditransitives in much more detail and present evidence strongly suggesting that Russian ditransitives do not form a homogeneous class as far as quantifier scope is concerned. Instead, they are subdivided into *at least* three Groups, depending on their scope behavior. Based on a number of tests as well as well as on theoretical considerations, I argue that the differences in scope behavior between the three Groups of verbs must be traced to the underlying base-generated differences in verb phrase structure, proposing distinct structures for the there Groups that seem to be supported by independent evidence.

In Chapter 5 I discuss how adopting the premise of Russian being a "surface scope only" language has led researches to arguably wrong conclusions about various syntactic phenomena in the language and to postulating generalizations that are shown to be falsified by the data presented in the thesis. I have also argued that Russian scope data

are not amenable to an analysis in the spirit of Bruening (2001). In Chapter 5 I suggest that exactly because the parallelism between English and Russian is so striking, extending to every single construction considered, it is logical to ask whether the account of scope freezing proposed in this thesis for Russian might not be an attractive, viable alternative to Bruening's account of the English scope freezing. If my argument that scope freezing can be used as a tool for probing into the internal argument structure of ditransitives and the SF Generalization are correct, we might obtain interesting and important insights into the verb phrase structure for English as well. Initial data, familiar from the literature, suggesting that overt QP displacement may indeed lead to scope freezing in English is presented in the thesis. I leave working out a complete account of English scope freezing in terms of my proposal for future work. Another account of scope freezing, provided in Larson and Harada (2011) for Japanese, is also discussed in Chapter 5, with an eye on how the account fares when confronted with the Russian data. I end up concluding that although Larson and Harada's Cyclic Linearization account of scope freezing is superior to Bruening (2001) in being able to explain the distribution of scope for most of Russian data, nevertheless, it is not able to account for the whole range of data and makes a few predictions that are falsified when applied to Russian.

Finally, in Chapter 5 I also discuss the theory of quantifier scope and scope freezing put forth, most notably, in Bobaljik and Wurmbrand (2012). While Bruening (2001) was conceived of as an account of English facts alone, and thus its extension to Russian is only warranted in so far as attempts at that have already been made in Stepanov and Stateva (2009) and in so far as the parallelism between the two languages is indeed striking, Bobaljik and Wurmbrand (2012) is a highly articulated account that is specifically intended to handle scope freezing data from a cross-linguistic perspective. It is an especially important study for languages such as Russian given that it crucially relies on the availability of overt (QP) displacement, most notably Scrambling in accounting for scope freezing. Thus, Russian, as a Scrambling language with scope freezing found in numerous contexts provides a natural testing ground for this theory. Reviewing data from a number of contexts and constructions in Russian, I show, however, that the account makes false predictions in a number of cases, and where it can be argued to make the correct predictions, the account appears to nevertheless not be fine grained enough to predict the specifics of scope freezing or scope fluidity distribution. Thus, I argue that the account is falsified by the Russian scope data. However, I fully endorse Bobaljik and Wurmbrand's key thesis that there cannot be a QR parameter that languages such as English and Chinese, for instance, differ on. Rather, as these authors argue, scope freezing must be a property of constructions, rather than languages as a whole. On this view, labeling whole languages as scope fluid or scope frozen is an unfortunate misnomer, which can lead to overlooking important properties of the languages in question. This is what I believe has been the case with Russian, a language that clearly demonstrates the correctness of Bobaljik and Wurmbrand's argument against

the existence of a QR parameter, being a language with freely available QR yet with numerous syntactic contexts and constructions where scope is surface frozen.

6.2 Future Directions

6.2.1 Syntactic Work from the Cross-Linguistic Perspective

The results obtained in this thesis have important implications for other languages as they raise a number of urgent questions. One of the first questions that come to mind concerns the cross-linguistic differences in terms of scope. Why should languages as distinct in terms of their syntactic properties as English and Russian (the former a non-scrambling language and the latter a language that freely allows scrambling in virtually all conceivable contexts) be so similar in terms of quantifier scope while Russian and German, on the other hand, are so different? Specifically, given that the latter two are scrambling languages, why should reconstructing a scrambled QP be disallowed in Russian but allowed in German, for instance? Similarly, why should sentences with a quantificational subject and object be freely ambiguous in Russian, but surface scope frozen in German unless a special intonation contour is used (Lechner 1996, 1998a, 1998b, Frey 1989, 1993, Krifka 1998)? The same questions arise for Japanese, another scrambling language: why should Russian allow inverse scope in basic subject-object sentences, like English does, while Japanese seems to be confined to surface scope relations in this context (Kuroda 1970)[162]?

At the same time, a number of facts suggest that Russian and Japanese do share a number of properties with respect to scope and in this respect are much more similar than Russian and German are. Thus, while Japanese is well-known for the "undoing" property of its scrambling (Saito 1989, 1992), there is evidence from Miyagawa's work on Japanese arguing that a very similar situation to that described for scrambling of QPs in Russian holds of Japanese Scrambling as well. Specifically, using somewhat similar data from Japanese, Miyagawa (2006) has proposed that Scrambling, which, he argues, like QR, is entirely optional, is constrained by Economy in Japanese: if an instance of movement has a semantic effect (in the sense that a new, previously unavailable interpretation is established) it is licensed in the new position, otherwise it has to reconstruct. Another similarity between Russian and Japanese concerns ditransitives: Japanese, too, has been known to exhibit surface scope freezing in this context (Hoji (1985), Harada and Larson (2009), Larson and Harada (2011)). Furthermore, as clearly shown in Larson and Harada (2011), all the constructions where scope freezing is

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[162] Note that in this respect German and Japanese behave in a similar fashion, although I am not aware of whether a special intonation contour in Japanese can bring about the inverse scope interpretation the way that it is argued to in German.

observed in Japanese can be argued to involve an instance of overt movement by a structurally lower QP across the structurally higher one, which is exactly what I have argued to be the case in Russian. Given the above similarities between Russian and Japanese with respect to scope freezing with scrambling of QPs on the one hand and scope freezing with ditransitives on the other, it would be interesting to see whether further similarities exist between these languages in terms of the subdivision of Japanese ditransitives into different Groups depending on their scope behavior that were identified here for Russian. If such Groups of predicates can indeed be identified for Japanese (as well as English, for that matter), we may be in a position to evaluate the cause of scope freezing from a cross-linguistics perspective, relying on similar evidence from such distinct languages as Russian and Ukrainian, English, Japanese, Korean and arguably other languages, as I believe the classification of predicates along the lines suggested in the thesis may not be unique to (East) Slavic languages. Similarly, if scope freezing and the SF Generalization may indeed be used as a diagnostic tool for probing into verbs' argument structure, new important insights from a cross-linguistic perspective may be derived in this area as well.

6.2.2 Work at the Prosody-Syntax-Semantics Interface

While I have not discussed this question in much detail in the thesis, the issue of the prosody of quantificational sentences most certainly needs to be addressed. Although prosodic effects on quantifier scope ambiguity still remain a poorly studied area, a growing body of literature suggests that the prosody speakers tacitly project onto quantificational sentences may strongly affect their judgments (Kitagawa and Fodor 2003). Thus, in Japanese, processing of inverse and embedded scope was found more difficult when a Major Phrase (MaP) boundary intervened between the two scope-taking elements (Hirotani (2004)). Given ample syntactic evidence for the availability of inverse scope in Russian quantificational sentences that is due to a syntactic mechanism of Quantifier Raising, at the point when I started working on the thesis I hypothesized that the frequent claims regarding the 'surface scope only' status of Russian SVO sentences (Ionin (2001), Grebenyova (2004), Stepanov and Stateva (2009) i.a.) may be due to the prosody some native speakers impose on such sentences that results in intuitions of the lack of scope ambiguity. Specifically, I hypothesized that the prosody Russian speakers impose on doubly quantified sentences (prosodic grouping, the use of (contrastive) pitch accents) may be biasing them toward surface scope judgments, thus accounting for the rigid surface scope claims found in the literature.

My pilot work in this area (production studies that looked at how naïve native Russian speakers produce various types of quantificational sentences embedded in a scopally disambiguating context) suggests that the surface scope status of Russian may indeed be at least in part attributed to the *silent prosody* (Fodor 2002) native speakers

impose on such sentences that is often incompatible with inverse scope interpretations[163],[164]. Such findings have methodological importance suggesting prosody should be controlled for when carrying out research on quantification, especially in one's work with native speaker informants. Specifically, the analysis of target sentences' prosody showed that the prosodic features disallowing inverse scope interpretation in Russian are insertion of intermediate phrase (IP) boundaries, most commonly a H-, separating the subject QP from the predicate, and contrastive pitch accent on the object determiner[165]. This corroborates previous findings (Hirotani 2004) and suggests the requirement of grouping the two QPs into the same Intermediate Phrase may be universal. The finding that a strong pitch accent, especially one that is understood as contrastive, precludes inverse scope in certain syntactic contexts is in line with my own observation that sentences such as *Some student read EVERY book* (in both English and Russian) strongly prefer surface scope interpretation. The important next step in this work is carrying out controlled comprehension experiments to determine, first of all, which phonetic prosodic cues identified in production and hypothesized to be markers biasing native speakers in favor of surface or inverse scope, actually correspond to phonological categories perceived by listeners as such. The knowledge of which prosodic features affect quantifier scope interpretation will considerably inform our understanding of the workings of the prosody/syntax/semantics interface.

Another important question in this regard is studying the prosody of quantificational sentences from a cross-linguistic perspective, in an attempt to identify how the prosody of quantificational sentences in various languages that share a certain syntactic property or that differ on a certain property, affects their interpretation. Such cross-linguistic work will hopefully help us identify the set of prosodic categories (such as the Japanese Major Phrase, due to Hirotani (2004)) that may have universal importance in terms of their ability to affect interpretation of quantificational sentences. An articulated theory combining such insights from prosody, syntax and semantics of quantificational sentences is yet to be created.

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[164] In the summer of 2009, following several production studies, a comprehension experiment was carried out as well, to see if the prosodic cues hypothesized as potentially biasing native speakers against the inverse scope interpretation were indeed perceived by the listeners as such. The experiment did not yield statistically significant results for any of the prosodic cues considered. However, I believe this may be primarily due to a faulty experimental design as the results of the preceding production studies the experiment was based on appear to be quite robust and in line with previous cross-linguistic findings in this area.

[165] The results are described in more detail in Antonyuk-Yudina (2011).

REFERENCES

Adger, David. 2003. Core Syntax: A Minimalist Approach. Cambridge: Cambridge University Press.

Antonenko, Andrei. 2006. Scrambling in Russian and the Subjunctive/Indicative Distinction. Unpublished manuscript, Stony Brook University.

Antonenko, Andrei. 2008. The Nature of Russian Subjunctive Clauses. Qualifying Paper, Stony Brook University, New York (available at www.linguistics.stonybrook.edu/ students/andrei.antonenko).

Antonyuk, Svitlana. 2005. The Scope of Quantifier Phrases in Russian: A QR Analysis. Qualifying paper, Stony Brook University, New York.

Antonyuk, Svitlana. 2006. The scope of quantifier phrases in Russian: a QR analysis. In: *Linguistics in the Big Apple*. http://web.gc.cuny.edu/dept/lingu/liba/CSN2006.html Accessed 3 July 2007.

Antonyuk-Yudina, Svitlana. 2009. Long-distance scrambling, VP ellipsis, and scope economy in Russian. U. Penn Working Chapters in Linguistics 15.1: *Proceedings of PLC* 32, ed. L. MacKenzie, 1-9. http://repository.upenn.edu/pwpl/vol15/iss1/2 Accessed 13 February 2010.

Antonyuk-Yudina, Svitlana. 2011. Why Prosody Matters. An extended 4-page abstract of the presentation, Linguistic Society of America, Annual Meeting, Pittsburg

Antonyuk-Yudina, Svitlana and John F. Bailyn. 2011. Scope Freezing, Economy and Week Crossover. An extended 4-page abstract of the presentation, Linguistic Society of America, Annual Meeting, Pittsburg

Aoun, Joseph and Y.-H. Audrey Li. 1989. Constituency and Scope. *Linguistic Inquiry* 20: 141– 172.

Aoun, Joseph and Y.-H. Audrey Li. 2003. *Essays on the Representational and Derivational Nature of Grammar*. Cambridge, MA: MIT Press.

Babby, Leonard H. 1980. Existential sentences and negation in Russian. Ann Arbor, Michigan: Karoma Publishers.

Babby, Leonard H. 2000. Infinitival Existential Sentences in Russian: A Case of

Syntactic Suppletion. In Tracy Holloway King and Irina A. Sekerina (eds.), *Formal Approaches to Slavic Linguistics* 8: The Philadelphia Meeting, Ann Arbor, MI: Michigan Slavic Publications, 1–21.

Babyonyshev, Maria. 1996. Structural Connections in Syntax and Processing: Studies in Russian and Japanese. Doctoral dissertation, MIT.

Bailyn, John Frederick. 1994. The Syntax and Semantics of Russian Long and Short Form Adjectives. In Jindřich Toman (ed.), *Formal Approaches to Slavic Linguistics* 1: The Ann Arbor Meeting, Ann Arbor, MI: Michigan Slavic Publications, 1–30.

Bailyn, John Frederick. 1995. A Configurational Approach to Russian "Free" Word Order. Doctoral dissertation, Cornell University, Ithaca, NY.

Bailyn, John Frederick. 2001a. On Scrambling: A Reply to Bošković & Takahashi. *Linguistic Inquiry* 32(4): 635–658.

Bailyn, John Frederick. 2001b. The Syntax of Slavic Predicate Case. In Gerard J.ger, Anatoly Strigin, Chris Wilder, and Niina Zhang (eds.), *ZAS Papers in Linguistics* 22: 1–23.

Bailyn, John Frederick. 2002a. Overt Predicators. *Journal of Slavic Linguistics* 10(1–2): 23–52.

Bailyn, John Frederick. 2002b. Scrambling to Reduce Scrambling. *GLOT International* 6(4): 83–90 and 6(5): 109–124.

Bailyn, John Frederick. 2003. Does Russian Scrambling Exist? In Simin Karimi (ed.), *Word Order and Scrambling.* Oxford: Blackwell, 156–176.

Bailyn, John. 2004. Generalized Inversion. *Natural Language & Linguistic Theory* 22: 1-49

Bailyn, John Frederick. 2004b. The Case of Q. In Olga Arnaudova, Wayles Browne, Maria Luisa Rivero, and Danijela Stojanović (eds.), *Formal Approaches to Slavic Linguistics* 12: The Ottawa Meeting, Ann Arbor, MI: Michigan Slavic Publications, 1–36.

Bailyn, John Frederick. 2006. Against the Scrambling Anti-Movement Movement. In

James Lavine, Steven Franks, Mila Tasseva-Kurktchieva, and Hana Filip (eds.), *Formal Approaches to Slavic Linguistics* 14: The Princeton Meeting, Ann Arbor, MI: Michigan Slavic Publications, 35–49.

Bailyn, John Frederick. 2009. What's Inside VP? New Evidence on VP internal Structure in Russian. Paper presented at the Annual Workshop on Formal Approaches to Slavic Linguistics 18, Cornell University, Ithaca, NY.

Bailyn, John. 2010a. What's Inside VP? New (and Old) Evidence from Russian. In Wayles Browne et al. (eds.), *Formal Approaches to Slavic Linguistics* 18: The Second Cornell Meeting, Ann Arbor, MI: Michigan Slavic Publications.

Bailyn, John. 2012. *The Syntax of Russian.* Cambridge University Press.

Baltin, Mark, 1982. A Landing Site Theory of Movement Rules. *Linguistic Inquiry* 13: 1–38.

Barker, Chris. 2012 Quantificational Binding does not Require c-command. *Linguistic Inquiry* 43(4): 614–633

Barss, Andrew and Howard Lasnik, 1986. A Note on Anaphora and the Double Object Construction. *Linguistic Inquiry* 17(2): 347–354.

Beavers, John. 2011. On Affectedness. *Natural Language and Linguistic Theory* 29(2): 335-370.

Beck, Sigrid. 1996. Quantified structures as barriers for LF movement**.** *Natural Language Semantics* 4(1): 1-56

Beck, Sigrid and Kyle Johnson. 2004. Double Objects Again. *Linguistic Inquiry* 35(1): 97-123.

Beghelli, Filippo and Tim Stowell. 1997. Distributivity and negation: the syntax of each and every. In *Ways of Scope Taking*, ed. Anna Szabolcsi, 71-109. Kluwer.

Belletti, Adriana and Luigi Rizzi. 1988. Psych-Verbs and Theta-Theory. *NaturalLanguage and Linguistic Theory* 6: 291–352.

Bleam, Tonia. 2003. Properties of the Double Object Construction in Spanish. In R. Núñez Cedeño, L. López and R. Cameron, eds., *A Romance Perspective on Language Knowledge and Use*. John Benjamins, 233-252.

Bobaljik, Jonathan David and Susi Wurmbrand (2012) Word Order and Scope:

Transparent Interfaces and the ¾ Signature. *Linguistic Inquiry* 43:3, 371-421.

Bošković, Željko and Deiko Takahashi. 1998. Scrambling and Last Resort. *Linguistic Inquiry* 29: 347–366.

Bouton, L. 1970. Do So: Do + Adverb. *Studies Presented to R.B. Lees by his Students*. J.Sadock (ed)., 17-38. Edmonton: Linguistics Research.

Bowers, John. 1991. The Syntax and Semantics of Nominals. *Cornell University Working Papers in Linguistics* 10: 1–30.

Bowers, John. 1993. The Syntax of Predication. *Linguistic Inquiry* 24: 591–656.

Brown, Sue. 1999. The Syntax of Negation in Russian. Stanford, CA: CSLI Publications.

Bruening, Benjamin. QR Obeys Superiority: ACD and Frozen Scope. *Linguistic Inquiry* 32(2):233-273.

Bruening, Benjamin. 2010a. Double Object Constructions Disguised as Prepositional Datives. *Linguistic Inquiry* 41: 287--305.

Bruening, Benjamin. 2010b. Ditransitive Asymmetries and a Theory of Idiom Formation. *Linguistic Inquiry* 41: 519--562.

Cecchetto, Carlo. 2004. Explaining the locality conditions of QR. Consequences for the Theory of Phases. *Natural Language Semantics* 12(4): 345-397

Cheung, C. and Richard K. Larson. 2015. Psych Verbs in English and Mandarin. *Natural Language and Linguistic Theory 33*: 127-189.

Chomsky, Noam. 1957. Syntactic structures. The Hague: Mouton.

Chomsky, Noam. 1976. *Reflections on language*. New York: Pantheon.

Chomsky, Noam. 1977. Conditions on rules of grammar. In *Essays on form and interpretation*. New York: North Holland.

Chomsky, Noam. 1986. *Barriers*. Linguistic Inquiry Monograph Thirteen. Cambridge, MA and London: The MIT Press.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In *The view from building 20*, ed. K. Hale & S. J. Keyser, 1–52. Cambridge, MA.: MIT Press.

Chomsky, Noam. 1998. Minimalist inquiries: The framework. In *MIT Occasional Chapters in Linguistics* 15. Cambridge, MA: MITWPL.

Citko, Barbara. 2004. On Headed, Headless, and Light-Headed Relatives. *Natural Language and Linguistic Theory* 22: 95–126.

Collins, Chris. 2005. A Smuggling Approach to the Passive in English. *Syntax* 8(2):81-120.

Dayal, Veneeta. 2013. The Syntax of Scope and Quantification. In den Dikken (ed), Cambridge Handbook of Generative Syntax.

Diesing, Molly. 1992. *Indefinites*. Cambridge, MA: MIT Press.

Dikken, Marcel den. 1995. *Particles: On the syntax of verb–particle, triadic and causative constructions.* Oxford Studies in Comparative Syntax. Oxford/New York: Oxford University Press. 288pp.

Dyakonova, Marina. 2005. Russian Double Object Constructions. *Amsterdam Center for Language and Communication Working Papers* 2(1): 3–30.

Dyakonova, Marina. 2007/2009. A Phase-based Approach to Russian Free Word Order. Doctoral dissertation. University of Amsterdam.

Dudchuk, Philip. 2006. Locative Alternation and the Structure of VP [Локативная альтернация и структура глагольной группы]. MA thesis, Moscow State University.

Endriss, Cornelia. 2009. *Quantificational Topics. A Scopal Treatment of Exceptional Wide Scope Phenome*na. Studies in Linguistics and Philosophy. Springer

Emonds, Joseph. 1976. A Transformational Approach to English Syntax, Academic Press, New York.

Epstein, S. 1992. Derivational Constraints in A'-chain Formation. *Linguistic Inquiry* 23: 135-159.

Erechko, Anna. 2003. On Subject-Verb Inversion in Russian. Marjo van Koppen, Joanna Sio & Mark de Vos (eds.). Proceedings of ConSOLE XI: 1-14.

Fiengo, Robert and Robert May. 1994. *Indices and Identity.* Cambridge, Mass: MIT

Press.

Fintel, Kai von. 1994. Restrictions on Quantifier Domains. Doctoral dissertation, GLSA, UMass Amherst.

Fodor, Janet Dean. 2002a. Prosodic disambiguation in silent reading. In *Proceedings of the North East Linguistic Society* 32, M.Hirotani (ed.), GSLA, University of Massachusetts, Amherst.

Fodor, Janet Dean. 2002b. Psycholinguistics cannot escape prosody. In *Proceedings of the SPEECH PROSODY 2002 Conference*, Aix-en-Provence, France.

Fox, Danny. 1995. Economy and Scope. *Natural Language Semantics* 3(3): 283-341.

Fox, Danny. 1999. Reconstruction, Binding Theory, and the Interpretation of Chains. *Linguistic Inquiry* 30(2): 157–196.

Fox, Danny. 2000. *Economy and Semantic Interpretation.* Linguistic Inquiry Monographs, Cambridge, MA.: MIT Press.

Fox, Danny and David Pesetsky. 2005. Cyclic Linearization of Syntactic Structure. *Theoretical Linguistics* 31(1-2): pp. 1-46.

Franks, Steven. 1995. *Parameters of Slavic Morphosyntax*. New York / Oxford: Oxford University Press.

Frey, Werner. 1993. Syntaktische Bedingungen für die semantische Repräsentation: Über Bindung, implizite Argumente und Skopus. Berlin: Akademie Verlag.

Godjevac, Svetlana. Quantifier Scope and LF Movement in Serbo-Croatian. Journal of Slavic Linguistics 11 (1): 103-126.

Grebenyova, Lydia. 2004. Interpretation of Slavic Multiple Wh-questions. In Olga Arnaudova, Wayles Browne, Maria Luisa Rivero, and Danijela Stojanović (eds.), *Formal Approaches to Slavic Linguistics* 12: The Ottawa Meeting, Ann Arbor, MI: Michigan Slavic Publications, 169–186.

Grebenyova, Lydia. 2006. Sluicing Puzzles in Russian. In Andrei Antonenko, John F. Bailyn, and Christina Y. Bethin (eds.), *Formal Approaches to Slavic Linguistics* 16: The Stony Brook Meeting, Ann Arbor, MI: Michigan Slavic Publications, 156–170.

Greenberg, Gerald R. and Steven Franks. 1991. A Parametric Approach to Dative Subjects and the Second Dative in Slavic. *Slavic and East European Journal* 35(1): 71–97.

Harada, Naomi and Richard K. Larson. 2009. Datives in Japanese. In R. Shibagaki and R. Vermeulen (eds.) *Proceedings of the 5th Workshop on Altaic Formal Linguistics (WAFL5). MIT Working Papers in Linguistics Vol. 54.* (pp.3-17) Cambridge, MA: MITWPL.

Harbert, Wayne and Almeida Toribio. 1991. Nominative Objects. *Cornell Working Papers in Linguistics* 9: 127–192.

Harley, Heidi. 1995. Subjects, Events and Licensing. Doctoral dissertation, Massachusetts Institute of Technology.

Harves, Stephanie. 2002. Unaccusative Syntax in Russian. Doctoral dissertation, Princeton University.

Harves, Stephanie. 2003. Getting Impersonal: Case, Agreement, and Distributive Po-Phrases in Russian. In Wayles Browne, Ji-Yung Kim, Barbara H. Partee, and Robert A. Rothstein (eds.), *Formal Approaches to Slavic Linguistics* 11: The Amherst Meeting, Ann Arbor, MI: Michigan Slavic Publications, 235–254.

Heycock, Caroline. 1995. Asymmetries in Reconstruction. *Linguistic Inquiry* 26(4): 547–570.

Heim, Irene and Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Malden, MA.: Blackwell Publishers.

Higginbotham, James. 1980. Pronouns and bound variables. *Linguistic Inquiry* 11(4): 679–708

Hirotani, Masako. 2004. Prosody and LF: Processing of Japanese Wh-questions. Doctoral dissertation, University of Massachusetts at Amherst.

Hoekstra, Teun and René Mulder. 1990. Unergatives as Copular Verbs: Locational and Existential Predication. *The Linguistic Review* 7: 1–79.

Hornstein, Norbert. 1995. *Logical Form: From GB to Minimalism*. Oxford: Blackwell.

Huang, C.-T. James. 1982. Logical relations in Chinese and the theory of grammar. Doctoral dissertation, MIT.

Huang, C.-T. James. 1998, Logical Relations in Chinese and the Theory of Grammar, New York: Garland Publishers.

Ionin, Tania. 2001. The one girl who was kissed by every boy: Scope, scrambling and discourse function in Russian. In *Proceedings of ConSole* X, ed. M. van Koppen et al., 65–80. Student Organization of Linguistics in Europe.

Ionin, Tania and Tatiana Luchkina. under review. Focus on Scope: Information Structure and Quantifier Scope. *Proceedings of Formal Approaches to Slavic Linguistics* (FASL) 24, New York University, New York, NY. Michigan Slavic Publications.

Jacobson, Pauline. 1992. Raising without Movement. In R.Larson et. Al.(eds.), Control and Grammatical Theory. Kluwer Academic Publishers. Dordrecht, pp.149-194

Johnson, Kyle and Satoshi Tomioka. 1997. Lowering and Mid-size Clauses. *Proceedings of the Tübingen Workshop on Reconstruction*, Tübingen, Germany.

Johnson, Kyle. 2000. How Far will Quantifiers Go? In *Step by step*, ed. Roger Martin, David Michaels and Juan Uriagereka, 187–210. MIT Press.

Johnson, Kyle. 2001. Clausal Edges and Their Effects on Scope. Paper presented at the Peripheries conference, York, UK.

Johnson, Kyle. 2001. What VP Ellipsis Can Do, and What it Can't, but not Why. In Mark R. Baltin and Chris Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, Oxford: Blackwell, 439–479.

Kaiser, Elsi and Kimiko Nakanishi. 2001. Syntax-Pragmatics Interactions: Scrambling in Japanese and Finnish Ditransitive Constructions. Unpublished manuscript, University of Pennsylvania.

Kallestinova, Elena. 2007. Aspects of Word Order in Russian," Ph.D. dissertation, University of Iowa.

Kallestinova, Elena and Roumyana Slabakova. 2008. Does the verb move in Russian? *Proceedings of FASL* 16, 199-214. Michigan Slavic Publications.

Karimi, Simin (ed.). 2003. *Scrambling and Word Order.* Oxford: Blackwell Publishers.

Karttunen, Lauri. 1968. What do Referential Indices Refer to? Santa Monica, CA: The Rand Corporation.

Kawamura, Tomiko. 2004. A Feature-Checking Analysis of Japanese Scrambling. *Journal of Linguistics* 40: 45–68.

Kayne, Richard. 1994. *The Antisymmetry of Syntax.* Cambridge, MA: MIT Press.

Kazanina, Nina. 2005. The Acquisition and Processing of Backwards Anaphora. Doctoral dissertation, University of Maryland, College Park.

Kazenin, Konstantin, 2001. Polarity in Russian and Typology of Predicate Ellipsis. ms., Moscow State University (available at www.sfb41.uni-tuebingen.de/b2/papers/ruspol.pdf).

Kearns, Kate. 2011. *Semantic*s. Palgrave Macmillan; 2nd edition, 288 p.

Kiss, Katalin. 1986. The Order and Scope of Operators. In Werner Abraham and S. de Meij (eds.), Topic, Focus, and Configurationality, Papers from the 6th Groningen Grammar Talks, Amsterdam: John Benjamins, 81–214.

Kiss, Katalin. 1991. Logical Structure in Syntactic Structure: The Case of Hungarian. In: J. Huang és R. May (szerk.), *Logical Structure and Syntactic Structure. Studies in Linguistics and Philosophy*. Reidel, Dordrecht, 111-148.

Kiss, Katalin. 1998. Identificational Focus versus Information Focus. L*anguage* 74(2): 245–273.

Kitagawa, Yoshihisa and Janet Dean Fodor. 2003. Default Prosody Explains Neglected Syntactic Analyses in Japanese. *Japanese/Korean Linguistics 12*, Pp. 12, CSLI Publications.

Ko, Heejeong. 2005. Constraining Scrambling: Cyclic Linearization and Subject Movement, in B. Schmeiser, V. Chand, A. Kelleher, and A. Rodriguez (eds.), *Proceedings of West Coast Conference on Formal Linguistics* 23 (WCCFL 23), Cascadilla Press, Somerville, pp. 500-513.

Kondrashova, Natalia. 1994. Agreement and Dative Subjects in Russian. In Sergei Avrutin, Steven Franks, and Ljiljana Progovac (eds.), *Formal Approaches to Slavic Linguistics* 2: The MIT Meeting, Ann Arbor, MI: Michigan Slavic Publications, 255–285.

Kratzer, Angelika and Elisabeth Selkirk. 2007. Phase Theory and Prosodic Spell-Out: The Case of Verbs. *The Linguistic Review* 24: 93-135.

Krifka, Manfred. 2008. Basic Notions of Information Structure. *Acta Linguistica Hungarica* 55(3–4): 243–276.

Krifka, Manfred. 1998. Scope Inversion under the Rise-Fall Pattern in German. *Linguistic Inquiry* 29(1):75-112.

Kuroda, Shige-yuki. 1965. Generative Grammatical Studies in the Japanese Language. PhD dissertation, MIT.

Kuroda, S.-Y. 1970. Remarks on the notion of subject with reference to words like also, even and only. Part II. In Annual Bulletin: Logopedics and Phoniatrics Research Institute 4, 127-152, University Tokyo.

Lakoff, George. 1968. Instrumental adverbs and the concept of deep structure. *Foundations of Language* 4(1), 4-29.

Lakoff, George. 1970. Global Rules. *Language* 46: 627–39.

Larson, Richard K. 1985a. On the Syntax of Disjunction Scope. *Natural Language and Linguistic Theory 3:* 217-264.

Larson, Richard K. 1985b. Bare-NP Adverbs. *Linguistic Inquiry 14:* 595-621.

Larson, Richard K. 1988a. Scope and Comparatives*Linguistics and Philosophy 11:* 1-26.

Larson, Richard K. 1988b. On the Double Object Construction. *Linguistic Inquiry 19:* 335-391.

Larson, Richard, K. 1990. Double Objects Revisited: Reply to Jackendoff. *Linguistic Inquiry 21:* 589-632.

Larson, Richard K. and Robert May. 1990. Antecedent Containment or Vacuous Movement: Reply to Baltin. *Linguistic Inquiry 21:* 103-122.

Larson, Richard K. 2004. Sentence-final Adverbs and Scope. In M. Wolf and K. Moulton (eds.) *Proceedings of NELS 34*. (pp.23-43) UMASS: GLSA.

Larson, Richard K. 2009. Chinese as a Reverse Ezafe Language. *Yuyanxue Luncong (Journal of Linguistics) 39*: 30-85. Peking University.

Larson, Richard K. 2010. On Pylkkanen's semantics for low applicatives. *Linguistic Inquiry 41*: 701-704.

Larson, Richard K. and Naomi Harada. 2011. Datives in Japanese. Unpublished manuscript, Stony Brook University.

Larson, Richard K. 2014. On Shell Structure. Routledge, London.

Lasnik, Howard and Mamoru Saito. 1984. On the Nature of Proper Government. *Linguistic Inquiry* 15:235-289.

Lasnik, Howard and Juan Uriagereka. 1988. *A course in GB syntax*. Cambridge, MA: MIT Press.

Lasnik, Howard and Mamoru Saito. 1992. *Move Alpha: Conditions on Its Application and Output*. MIT Press.

Lasnik, H. 2010. A (Surprising?) Consequence of Single-Cycle Syntax. *Linguistic Sciences* 9(1): 22-33.

Lechner, Winfried. 1996. On semantic and syntactic reconstruction. In Wiener Linguistische Gazette 57-59, 63-100. Vienna, University of Vienna, WLG.

Lechner, Winfried. 1998a. Reconstruction and determiner raising. In *Reconstruction: Proceedings of the 1997 Tübingen Workshop*, ed. by Graham Katz, Shin-Sook Kim, and H. Winhart, 59-79. Stuttgart/Tübingen: University of Stuttgart/University of Tübingen.

Lechner, Winfried. 1998b. Two kinds of reconstruction. *Studia Linguistica* 52.3:276-310.

Linebarger, Marcia. 1987. Negative Polarity and Grammatical Representation.

Linguistics and Philosophy 10: 325-387.

Madariaga, Nerea. 2008. Grammar Change and the Development of New Case Relations: The Interaction between Core Syntax and the Linguistic Periphery in Old and Present-Day Russian. Doctoral dissertation, The University of the Basque Country.

Marantz, Alec. 1993. Implications of Asymmetries in Double Object Construction. In Sam Mchombo (ed.), Theoretical Aspect of Bantu Grammar, CSLI Publications, Stanford, California, pp. 113-150.

Matushansky, Ora. 2001. The Instrument of Inversion: Instrumental Case in the Russian Copula. In R. Billerey and B. O. Lillehaugen (eds.), *Proceedings of the West Coast Conference on Formal Linguistics* 19, Somerville, MA: Cascadilla Press, 288–301.

Matushansky, Ora. 2008. A Case Study of Predication. In Franc Marušič and R. Žaucer (eds.), *Studies in Formal Slavic Linguistics: Contributions from Formal Description of Slavic Languages* 6.5. Frankfurt am Main: Peter Lang, 213–239.

Matushansky, Ora. 2010. Some Cases of Russian. In Gerhild Zybatow, Philip Dudchuk, Serge Minor, Ekaterina Pshehotskaya (eds.), *Formal Studies in Slavic Linguistics: Proceedings of Formal Description of Slavic Languages* 7.5. Frankfurt am Main: Peter Lang, 115–134.

May, Robert. 1977. The Grammar of Quantification. Doctoral dissertation, MIT.

May, Robert. 1985. *Logical Form*. Linguistic Inquiry Monographs. Cambridge: MIT Press.

May, Robert and Alan Bale. 2006. Inverse linking. In *The Blackwell Companion to Syntax*, ed. M. Everaert and H. C. V. Riemsdijk. Oxford: Blackwell.

McCawley, James. 1971. Prelexical syntax. *Georgetown Roundtable Meeting*, 19-33.

McGinnis, Martha. 2002. Object Asymmetries in a Phase Theory of Syntax. In John T. Jensen and Gerard van Herk (eds.), *Proceedings of the 2001 CLA Annual Conference*, Cahiers Linguistiques d'Ottawa, pp. 133-144.

Miyagawa, Shigeru. 1997. Against Optional Scrambling," Linguistic Inquiry 27(1):1–26.

Miyagawa, Shigeru. 2001. EPP, Scrambling, and Wh-in-Situ. In Michael Kenstowicz (ed.), Ken Hale: A Life in Language, Cambridge, MA: MIT Press, 293–338.

Miyagawa, Shigeru. 2003. A-Movement Scrambling and Options without Optionality. In Simin Karimi (ed.), *Word Order and Scrambli*ng. Oxford: Blackwell, 177–200.

Miyagawa, Shigeru. and T. Tsujioka. 2004. Argument Structure and Ditransitive Verbs in Japanese. *Journal of East Asian Lingistics* 13, 1-38.

Moltmann, F. and Anna Szabolcsi. 1994. Scope Interactions with Pair-List Quantifiers. *Proceedings of NELS*, volume 24, pages 381–395.

Mykhaylyk, Roksolana and Heejeong Ko. 2008. Object Scrambling and Specificity in Bilingual English-Ukrainian Acquisition. Annual Workshop on FASL. The Stony Brook Meeting 2007, In A.Antonenko et al. Ann Arbor: Michigan Slavic Publications.

Mykhaylyk, Roksolana. 2010. Optional Object Scrambling in Child and Adult Ukrainian. Doctoral dissertation, Stony Brook University, New York.

Mykhaylyk, Roksolana and Heejeong Ko. 2010. Optional Scrambling is not Random: Evidence from English-Ukrainian Acquisition. In Anderssen, M., K.Bentzen and M. Westergaard. (eds.), Variation in the Input: Studies in the Acquisition of Word Order. (Studies in Theoretical Psycholinguistics series, Vol.39). Dordrecht:Springer.

Neeleman, Ad, and Tanya Reinhart, 1998. Scrambling and the PF Interface. In Wilhelm Geuder and Miriam Butt (eds.), The Projection of Arguments: Lexical and Compositional Factors, Stanford, CA: CSLI Publications, 309–354.

Neeleman, Ad and Elena Titov, 2009. Focus, Contrast, and Stress in Russian. *Linguistic Inquiry* 40(3): 514–524.

Neeleman, Ad, Elena Titov, Hans van de Koot and Reiko Vermeulen, 2009. A Syntactic

Typology of Topic, Focus and Contrast. In Jereon van Craenenbroeck (ed.) *Alternatives to Cartography*. Berlin: Mouton de Gruyter, 15–52.

Nissenbaum, Jon. 2000. Investigations of covert phrase movement. Doctoral dissertation, MIT. Cambridge, MA: MITWPL.

Oehrle, R. 1976. The Grammatical Status of the English Dative Alternation. Doctoral dissertation, MIT.

Ormazabal, Javier and Juan Romero. 2010. The Derivation of Dative Alternations. In Maia Duguine, Susana Huidobro, and Nerea Madariaga (eds.), *Argument Structure and Syntactic Relations: A Cross-Linguistic Perspective*. Amsterdam: John Benjamins, pp. 203–232.

Ormazabal, Javier and Juan Romero. 2012. PPs without Disguises: Reply to Bruening. *Linguistic Inquiry* 43: 455–474.

Partee, Barbara and Vladimir Borschev. 2002. Genitive of Negation and Scope of Negation in Russian Existential Sentences. In Jindřich Toman (ed.), *Formal Approaches to Slavic Linguistics 10*: The Second Ann Arbor Meeting, Ann Arbor, MI: Michigan Slavic Publications. 181–220.

Partee, Barbara. 2003. Genitives, Relational Nouns, and Argument-Modifi er Ambiguity. In E. Lang, C. Maienborn, and C. Fabricius-Hansen (eds.), *Modifying Adjuncts*. Berlin: Mouton de Gruyter, 67–112.

Partee, Barbara 2004. The Semantics of Russian Genitive of Negation: The Nature and Role of Perspectival Structure. In Kazuha Watanabe and Robert B. Young (eds.), *Proceedings of Semantics and Linguistic Theory* 14, Ithaca, NY: CLC Publications, 212–234.

Partee, Barbara. 2005. The Semantics of Diathesis Alternations. Formal Semantics, Lecture 10. Available at: http://people.umass.edu/partee/RGGU_2005/RGGU05Lec10.pdf

Partee, Barbara H., and Vladimir Borschev. 2007. Existential sentences, BE, and the Genitive of Negation in Russian. In I. Comorovski and K.von Heusinger (eds), *Existence: Semantics and Syntax*. Dordrecht: Springer, 147-190.

Partee, Barbara H. 2010. Quantification. In In Patrick Colm Hogan (ed.), *The Cambridge Encyclopedia of the Language Sciences*. Cambridge: Cambridge University Press, 694-695.

Partee, Barbara H. 2014. A Brief History of the Syntax-Semantics Interface in Western Formal Linguistics. *Semantics-Syntax Interface* 1(1):1-20.

Pereltsvaig, Asya. 2000. On Accusative Adverbials in Russian and Finnish. In Artemis Alexiadou and Peter Svenonius (eds.), *Adverbs and Adjunction, Linguistics in Potsdam* 6, Potsdam; Institute of Linguistics, 155–176. (Also available online at www.hum.uit.no/a/pereltsvaig/Adverbs_volume.PDF.)

Pereltsvaig, Asya. 2001. On the Nature of Intra-Clausal Relations: A Study of Copular Sentences in Russian and Italian. Doctoral dissertation, McGill University.

Pereltsvaig, Asya. 2004. Topic and Focus as Linear Notions: Evidence from Italian and Russian. *Lingua* 114(3): 325–344.

Pereltsvaig, Asya. 2006. Small Nominals. *Natural Language and Linguistic Theory* 24(2): 433–500.

Pereltsvaig, Asya. 2006. Syntax of Denominal and Ditransitive Verbs Reconsidered. Unpublished manuscript, Stanford University.

Pereltsvaig, Asya. 2007. *Copular Sentences in Russian: A Theory of Intra-Clausal Relations*. New York: Springer.

Pesetsky, David. 1982. Paths and Categories. Doctoral dissertation, MIT.

Pesetsky, David. 1987. Wh-in-Situ: Movement and Unselective Binding. In Eric J. Reuland and Alice ter Meulen (eds.), *The Representation of (In)definiteness*. Cambridge, MA: MIT Press, 98–129.

Pesetsky, David. 2000. *Phrasal Movement and Its Kin*. Cambridge, MA: MIT Press.

Pesetsky, David and Esther Torrego. 2001. T-to-C Movement: Causes and Consequences. In M. Kenstowicz (ed.), *Ken Hale: A Life in Language*, Cambridge, MA: MIT Press, 355–426.

Pesetsky, David. 2004. Tense, Case, and the Nature of Syntactic Categories. In Jacqueline Gueron and Jacqueline Lecarme (eds.), *The Syntax of Time*, Cambridge, MA: MIT Press, 496–538.

Pietroski, Paul and Norbert Hornstein. 2002. Does Every Sentence Like This Exhibit a Scope Ambiguity? In W. Hinzen (ed.), *Belief and Meaning*.

Postal, Paul. 1974. *On Raising*. Cambridge, MA: MIT Press.

Postal, Paul. 2001. English non-direct objects. Ms., New York University, New York.

Postal, Paul. 2004. Skeptical linguistic essays, chapter 8. Ms., New York University, New York.

Progovac, Ljiljana. 2009. Sex and Syntax: Subjacency Revisited. *Biolinguistics* 3, 305–336.

Pylkkanen, Liina. 2000. What Applicative Heads Apply To. In M. Minnick, A. Williams, and E. Kaiser (eds.), *Proceedings of the Penn Linguistics Colloquium* 24, Penn Working Papers in Linguistics 7.1, Philadelphia, PA.

Pylkkänen, Liina. 2002. Introducing Arguments. Doctoral dissertation, MIT, Cambridge, MA.

Ramsey, Robert S, 1987. *The Languages of China.* Princeton University Press. 340 p.

Rappaport Hovav, Malka and Beth Levin.1988. What to Do with Theta-Roles. In W.Wilkins (ed.) *Syntax and Semantics* 21: Thematic Relations, Academic Press, San Diego, CA.

Rappaport, Gilbert. 2001. Extraction from Nominal Phrases in Polish and the Theory of Determiners. *Formal Approaches to Polish Syntax, ed. By Ewa Willim and Piotr Banski. Journal of Slavic Linguistics* 8 (3).

Reinhart, Tanya. 1997. Quantifier scope: How labor is divided between QR and choice functions. *Linguistics and Philosophy* 20: 335–397.

Reinhart, Tanya. 2006. 2006. *Interface Strategies: Reference-set Computation.* Cambridge, MA: MIT Press.

Richards, Norvin. 1997. What Moves Where When in Which Languages? Doctoral dissertation, MIT.

Richardson, Kylie. 2007. *Case and Aspect in Slavic.* Oxford: Oxford University Press.

Rizzi, Luigi. 1990. *Relativized Minimality*. Cambridge, MA: MIT Press.

Rodman, Robert. 1976. Scope phenomena, "movement transformations", and relative clauses. In *Montague Grammar*, ed. B.H. Partee, 165–176. New York: Academic Press.

Rudin, Catherine. 1988. On Multiple Questions and Multiple WH-fronting. *Natural Language and Linguistic Theory* 6: 445–502.

Ruys, Eddie. 1993. The Scope of Indefinites. Doctoral dissertation, Universitet Utrecht.

Ruys, Eddie G. and Yoad Winter. 2011. Scope Ambiguities in Formal Syntax and Semantics. In Dov Gabbay and Franz Günthner (eds.), *Handbook of Philosophical Logic* (2nd edition), John Benjamins, Amsterdam, The Netherlands, 159-225.

Sag, Ivan. 1976. Deletion and Logical Form. Cambridge: MIT dissertation.

Saito, Mamoru. 1989. Scrambling as semantically vacuous A'-movement. In *Alternative conceptions of phrase structure,* eds. M. Baltin and A. Kroch, 182-200. Chicago: University of Chicago Press.

Saito, Mamoru. 1992. Long Distance Scrambling in Japanese. *Journal of East Asian Linguistics* 1(1): 69–119.

Saito, Mamoru. 2003. A Derivational Approach to the Interpretation of Scrambling Chains. *Lingua* 113: 481–518.

Sauerland, Uli. 2001. On Quantifier Raising in German. Ms., Tübingen University, Tübingen. [Available at: http://www.zas.gwz-berlin.de/mitarb/homepage/sauerland/germanQR.pdf]

Sauerland, Uli and Oliver Bott. 2002. Prosody and scope in German Inverse Linking Constructions. In *Proceedings of the Speech Prosody* 2002 conference: Laboratoire Parole et Langage, ed. by B. Bel and I. Marlien, 623-628. Aix-en-Provence, France.

Sauerland, Uli. 2003. A New Semantics for Number. In *The Proceedings of SALT* 13, pp. 258–275. Cornell University, CLC-Publications, Ithaca, N.Y

Schneider-Zioga, Patricia. 1988. Double Objects and Small Clauses. Unpublished manuscript. Universty of Southern California, Los Angeles, California.

Scott, Tanya. 2012. Whoever doesn't HOP Must Be Superior!: The Russian Left-Periphery and the Emergence of Superiority. Doctoral dissertation, Stony Brook University, New York.

Stanley, Jason and Szabó, Zoltán Gendler. 2000. On Quantifier Domain Restriction. Mind and Language 15 (2&3): 219-261

Stanley, Jason. 2002. Nominal Restriction. *Logical Form and Language*, Ed. by Peters and Preyer. Oxford University Press.

Stepanov, Arthur. 1998. On Wh-Fronting in Russian. In *Proceeding of the North East Linguistics Society* 28, Amherst, MA: GLSA Publications, 453–467.

Stepanov, Arthur and Penka Stateva. 2009. When QR Disobeys Superiority. *Linguistic Inquiry* 40(1): 176–185.

Szabolcsi, Anna. 1997. *Ways of Scope Taking*. (ed.) 450 pages. Dordrecht, Kluwer.

Szabolcsi, Anna. 1997. Strategies for scope taking. In *Ways of Scope Taking*, ed. A. Szabolcsi, 109–155. Kluwer.

Szabolcsi, Anna. 2000. The syntax of scope. In Baltin and Collins, eds., *Handbook of Contemporary Syntactic Theory*. Blackwell, 607-634.

Szabolcsi, Anna. 2006. Strong vs. weak islands. In Everaert and van Riemsdijk, eds., *The Blackwell Companion to Syntax*. vol. 4, pp. 479-532.

Szabolcsi, Anna. 2010 *Quantification.* 264 pages. Cambridge, Cambridge University Press.

Szabolcsi, Anna. 2011 Scope and binding. In Maienborn, von Heusinger, and Portner, eds., *Semantics: An International Handbook of Natural Language Meaning, Vol. 2*, de Gruyter, pp. 1605-1641.

Takahashi, Shoichi and Sarah Hulsey. 2009. Wholesale Late Merger: Beyond the A/Ā-Distinction. *Linguistic Inquiry* 40:387-426.

Tsedryk, Egor. 2009. Fusion symetrique et alternances ditransitives. Linguistic Insights, Vol. 71. Bern, Berlin, Bruxelles, Frankfurt am Main, New York, Oxford, Wien. 197 p.

Williams, Edwin. 1977. Discourse and Logical Form. *Linguistic Inquiry* 8(1):101-139

Zanon, Ksenia. 2015. On Hybrid Coordination and Quantifier Raising in Russian. Doctoral dissertation, University of Indiana, Bloomington.

Zanon, Ksenia. 2014a. Two Russian Hybrids. *Journal of Slavic Linguistics* 22/2

Zanon, Ksenia. 2014b. Hybrid wh-coordination in Russian. In *Formal Approaches to Slavic Linguistics: The McMaster Meeting, 2013*, Cassandra Chapman, Olena Kit and Ivona Kučerová(eds), 444–465. Ann Arbor, MI: Michigan Slavic Publications.

Zubizarreta, Maria Luisa. 1998. *Focus, Prosody, and Word Order*. Cambridge, MA: MIT Press.

Zushi, Mihoko.1992. The Syntax of Dative Constructions in Japanese. Unpublished manuscript, McGill University.

APPENDIX I: RUSSIAN DITRANSITIVE CLASSES

7.0 Russian Ditransitives: An Overview

In Chapter 3 I have agrued, based on the scope freezing found with Dative > Accusative ditransitives, reflexive monotransitives, true Spray-Load alternations and that found with Local and Long-Distance Scrambling that Scope freezing results whenever a structurally lower QP overtly raises across a structurally higher QP to a c-commanding position. This effect was argued to be quite general and I suggested that it is due to a special Relation $\mathfrak{R}$ that is established between the two QPs upon crossing, with the higher QP binding a variable inside the lower one, thus preventing it from moving in a way that would change their relative order. I have also proposed that the Scope Freezing Generalization, repeated in (1), if factually correct, can serve as a diagnostic tool that can be used to probe into the structure of the ditransitive VP. Employing this tool allows us to gain genuine new insights into the structure of the ditransitive VP in Russian, which has long been a subject of a debate in Slavic linguistics.

(1) ***The Scope Freezing Generalization (revised):***
Scope freezing results when one QP raises over another to a c-commanding position as a result of a single instance of movement.

On this view, the order on which the scope between the two internal arguments is surface frozen is seen as derived, resulting from an overt instance of Topicalization of the lower QP across the structurally higher QP.

7.1 Scope Freezing in Russian Ditransitives: the Three Classes of Ditransitive Verbs in Russian

7.1.1 The General Picture

The data on diransitives reviewed in the previous Chapter suggests a straightforward story: one order of internal arguments is scopally ambiguous, the opposite order is scope frozen. This state of affairs can be viewed as very similar to that found in English, if we take the scopally free order in Russian to correspond to the Prepositional Dative construction in English and the scopally frozen order to correspond to the Double Object Construction. However, when we look more closely at the various ditransitive predicates in Russian, it turns out that not all of them behave alike in what concerns QP scope and scope freezing. Specifically, three classes or groups of verbs can be singled out depending

on their scope behavior. In Chapter 4 I refer to them as Group 1, Group 2 and Group 3. I what follows I will examine each Group separately in quite a lot of detail. With the account of the Russian ditransitive data presented in Chapter 4, here in the Appendix I will limit myself to presenting empirical data mostly, as well as presenting the additional tests carried on the data that were not discussed in the main text.

7.1.2 Group 1: "The ES Pattern"

The predicates in this group differ from those in the other two groups to be discussed below first and foremost in that the order of internal arguments where the Accusative object precedes the Oblique argument (from now on Accusative >> Oblique) is scopally ambiguous while the order where the Oblique argument precedes the Accusative argument (Oblique >> Accusative) is scopally frozen. Some of the examples of the predicates in this group are given below[166], [167]:

(2)　　a. Maša potrebovala [kakie-to dokumenty] (s každogo posetitelja)　(amb)
　　　　　Masha demanded [some documents]$_{ACC}$ [$_{PP}$ from every visitor]$_{GEN}$
　　　　　'Masha demanded some documents from every visitor'
　　　　b. Maša potrebovala (s kakogo-to posetitelija) [každyj document]　(frozen)
　　　　　Masha demanded [$_{PP}$ from some visitor] [every document]$_{ACC}$
　　　　　'Masha demanded every document from some visitor'

(3)　　a. Maša napisala [kakoj-to kommentarij] (k každoj fotografii)　　(amb)
　　　　　Masha wrote [some comment]$_{ACC}$ [$_{PP}$ to every photograph]$_{GEN}$
　　　　　'Masha wrote some comment to every photograph'
　　　　b. Maša napisala (k kakoj-to fotografii) [každyi kommentarij]$_{ACC}$　(frozen)
　　　　　Masha wrote [$_{PP}$ to some photograph] [every comment]
　　　　　'Masha wrote every comment to some photograph'

(4)　　a. Maša požertvovala [kakoj-to veščju] (radi každoj podrugi)　　(amb)
　　　　　Masha sacrificed [some thing]$_{INSTR}$ [for the sake of every girlfriend]$_{GEN}$
　　　　　'Masha sacrificed some thing for the sake of every girlfriend'
　　　　b. Maša požertvovala (radi kakoj-to podrugi) [každoj veščju]　　(frozen)

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[166] Regarding my notation: for the rest of this chapter the optional internal argument is put in parentheses, and the star outside the parentheses means the argument can't be dropped (or, in a few cases, can't be dropped without changing the meaning of the verb or without being interpreted as an elided argument). By the optional argument I mean both the argument of the verb that can be dropped (but implicitly understood as elided) and occasionally the truly optional adjunct phrase (mostly in cases with reflexive monotransitives).

[167] I apologize to the readers for the dull examples referring to the same two individuals Masha and Vanja all the time. I have done so purposefully, to keep the number of variables to a minimum and help the reader concentrate on scope judgments alone. For the same reason all the verbs are used in the past tense, perfective form.

Masha sacrificed [for the sake of some girlfriend]$_{GEN}$ [every thing]$_{INSTR}$
'Masha sacrificed, for the sake of some girlfriend, every thing'

(5)   a. Maša prostila [kakoe-to predatel'stvo] (každoj podruge)   (amb)
            Masha forgave [some betrayal]$_{ACC}$ [every girlfriend]$_{DAT}$
            'Masha forgave some betrayal to every girlfriend'
        b. Maša prostila (kakoj-to podruge) každoe predatel'stvo   (frozen)
            Masha forgave [some girlfriend]$_{DAT}$ [every betrayal]$_{ACC}$
            'Masha forgave some girlfriend every betrayal'

(6)   a. Vanja prines [kakuju-to novost'] (každoj sem'e)   (amb)
            Vania brought [some news]$_{ACC}$ [every family]$_{DAT}$
            'Vania brought some piece of news to every family'
        b. Vanja prines (kakoj-to sem'e) [každuju novost']   (frozen)
            Vania brought [some family]$_{DAT}$ [every news]$_{ACC}$
            'Vania brought some family every piece of news'

We can see that the first sentence in each example is the one where the Accusative object precedes the Oblique object, with scope being ambiguous between surface and inverse reading. When the order is reversed so that the Oblique object comes before the Accusative, the scope becomes surface frozen. The predicates in this group are quite different in the sense that the Oblique argument can appear with different prepositions (s *with*, k *to*, radi *for/for the sake of*) or it can be marked with the Dative case (that is, appear without the preposition). Given examples such as (5) and (6), where the order Dative >> Accusative yields frozen scope, just as it does it the English DOC, we can tentatively equate Russian Group 1 with the cases of scope freezing known from English.

7.1.3 Group 2: "Reverse ES Pattern"

The predicates in Group 2 are the ones where, quite unexpectedly (from the point of view of the SF Generalization), the order Oblique >> Accusative is scopally ambiguous and the opposite order Accusative >> Oblique is scopally frozen, suggesting that the former is the basic one and the latter the derived one.

(7)   a. Maša obozvala (kakim-to prozviščem) [každogo mal'čika]   (amb)
            Masha called [some nickname]$_{INSTR}$ [every boy]$_{ACC}$
            'Masha called every boy by some nickname'
        b. Maša obozvala [kakogo-to mal'čika] (každym prozviščem)   (frozen)
            Masha called [some boy]$_{ACC}$ [every nickname]$_{INSTR}$
            'Masha called some boy by every nickname'

(8)   a. Maša očistila (ot kakogo-to parazita) [každyj dom]   (amb)
            Masha cleared [PP from some pest]GEN [every house]ACC
            'Masha cleared every house of some pest'
        b. Maša očistila [kakoj-to dom](ot každogo parazita)   (frozen)
            Masha cleared [some house]ACC [PP from every pest]GEN
            'Masha cleared some house of every pest'

(9)   a. Maša obidela (kakim-to priznaniem) [každogo druga]   (amb)
            Masha insulted [some confession]INSTR [every friend]ACC
            'Masha insulted every friend with some confession'
        b. Maša obidela [kakogo-to druga] (každym priznaniem)   (frozen)
            Masha insulted [some friend]ACC [every confession]INSTR
            'Masha insulted some friend with every confession'

(10)   a. Maša ugostila (kakim-to pečen'em) každogo rebenka   (amb)
            Masha treated [some cookie]INSTR [every child]ACC
            'Masha treated every child to some cookie'
        b. Maša ugostila [kakogo-to rebenka] (každym pečen'em)   (frozen)
            Masha treated [some child]ACC [every cookie]INSTR
            'Masha treated some child to every cookie'

(11)   a. Maša pobryzgala ?/*(kakimi-to duxami) [každuju klientku]   (amb)
            Masha sprayed [some perfume]INSTR [every client]ACC
             'Masha sprayed some perfume over every client'
        b. Maša pobryzgala [kakuju-to klientku] ?/*(každymi duxami)   (frozen)
            Masha sprayed [some client]ACC [every perfume]INSTR
            'Masha sprayed some client with every perfume'

We can see that the oblique argument of the verbs in this group can either appear with a
preposition, as in (8), or without it, marked Instrumental. The latter case is by far the
most common situation, although verbs with arguments requiring prepositions such as za,
ot, v, (*for*, *from*, *in* respectively) are also quite common. The majority of spray-load type
verbs (examples (8) and (11) above) belong to "The Unexpected" Group.

7.1.4 Group 3: "Free Pattern"

Finally, the third group with the telling name "Free Pattern" consists of the verbs where
either order of internal arguments yields scopal ambiguity. Let us consider some
examples:

(12)   a. Maša napisala [kakoj-to slogan] (na každoj stene)   (amb)
           Masha wrote [some slogan]_{ACC} [_{PP} on every wall]_{PREP}
           'Masha wrote some slogan on every wall'
       b. Maša napisala (na kakoj-to stene) [každyj slogan]   (amb)
           Masha wrote [_{PP} on some wall]_{PREP} [every slogan]_{ACC}
           'Masha wrote every slogan on some wall'

(13)   a. Vanja zagruzil [kakoj-to kirpič] *(v každyj vagon)   (amb)
           Vania loaded [some brick]_{ACC} [_{PP} into every carriage]
           'Vania loaded some brick into every carriage'
       b. Vanja zagruzil *(v kakoj-to vagon) [každyj kirpič]   (amb)
           Vania loaded [_{PP} into some carriage] [every brick]_{ACC}
           'Vania loaded every brick onto some carriage'

(14)   a. Vania zalil [kakuju-to židkost'] *(v každyj bak)   (amb)
        Vania poured [some liquid]_{ACC} [_{PP} into every tank]_{ACC}
        'Vania poured some liquid into every tank'
        b. Vania zalil *(v kakoj-to bak) [každuju židkost']   (amb)
        Vania poured [_{PP} into some tank]_{ACC} [every liquid]_{ACC}
        'Vania poured every liquid into some tank'

(15)   a. Maša razmestila [kakoje-to soobšenie] *(v každoi gazete)   (amb)
       Masha posted [some message]_{ACC} [_{PP} in every newspaper]_{PREP}
       'Masha posted some message in every newspaper'
       b. Maša razmestila *(v kakoj-to gazete) [každoe soobšenie]   (amb)
       Masha posted [_{PP} in some newspaper]_{PREP} [every message]_{ACC}
       'Masha posted every message in some newspaper'

(16)   a. Maša zagruzila [kakuju-to programmu] (na každyj komp'juter)   (amb)
       Masha uploaded [some program]_{ACC} [_{PP} on every computer]_{ACC}
       'Masha uploaded some program to every computer'
       b. Maša zagruzila (na kakoj-to komp'juter) [každuju programmu]   (amb)
       Masha uploaded [_{PP} on some computer]_{ACC} [every program]_{ACC}
       'Masha uploaded every program to some computer'

(17)   a. Maša obrisovala [kakuju-to situaciju] (každomu partneru)   (amb)
       Masha sketched [some situation]_{ACC} [to every partner]_{DAT}
       'Masha sketched some situation to every partner'
       b. Maša obrisovala (kakomu-to partneru) [každuju situaciju]   (amb)
       Masha sketched [some partner]_{DAT} [every situation]_{ACC}
       'Masha sketched for some partner every situation'

Again we can see that the predicates in this group take internal arguments that can appear with a number of different prepositions, such as "na" *on* as in examples (12) and (16) or "v" *in*, as in (13)-(15). Predicates taking prepositions such as "iz", "ot", "pered", "k" (*from, in front of, to*) also belong to this group. Additionally, a few predicates where the indirect object is marked with Dative (ex. 17) or with Instrumental case also belong to this group[168].

7.2 Scope Freezing and Contrastive Focus

Since the tests familiar from Bruening (2001) have already been used in Chapter 3 to indicate the reality of scope freezing in Russian, for the rest of the Appendix I will concentrate on employing other tests, some well known from earlier literature, some new. One of the tests that appears to be quite informative for my purposes is the use of contrastive focus intonation on the linearly second/structurally lower object determiner. The results obtained from this test are very robust and consistent with the conclusions suggested by the other tests - both already discussed, and those that will be discussed further in this Appendix. Let us consider the three groups of verbs with respect to scope in the context of contrastively focused lower object.

7.2.1 "ES Pattern" Group

As will be seen in this and the following sections dealing with the other two groups of verbs, the effect of contrastive focus in scopally ambiguous ditransitive sentences is unequivocal: in sentences that are scopally ambiguous, contrastively focusing the second object (marked with capital letters on the stressed syllable) results in wide scope for the focused objects (marked F> throughout). In sentences that are scope frozen, such as all the (b) sentences in this section, contrastively focusing the object results in obligatory narrow scope for the focused object (marked as F<).

(18)   a. Maša potrebovala [kakie-to dokumenty] (s **KA**ždogo posetitelja)   F>
            Masha demanded [some documents]$_{ACC}$ [$_{PP}$ from every visitor]$_{GEN}$
            'Masha demanded some documents from every visitor'
        b. Maša potrebovala (s kakogo-to posetitelja) [**KA**ždyj document]   F<
            Masha demanded [$_{PP}$ from some visitor] [every document]$_{ACC}$
            'Masha demanded every document from some visitor'

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[168] More exhaustive lists of predicates that have been classified as belonging to the three groups discussed above can be found at the end of this Appendix. Quantificational sentences with each predicate were subjected to all the syntactic tests discussed in the main text and the Appendix and classified as belonging to one of the three groups based on the results of these tests.

(19) a. Maša napisala [kakoj-to kommentarij] (k **KA**ždoi fotografii)   F>
Masha wrote [some comment]$_{ACC}$ [$_{PP}$ to every photograph]$_{GEN}$
'Masha wrote some comment to every photograph'
b. Maša napisala (k kakoj-to fotografii) [**KA**ždyj kommentarij]   F<
Masha wrote [to some photograph]$_{GEN}$ [every comment]$_{ACC}$
'Masha wrote every comment to some photograph'

(20) a. Maša požertvovala [kakoj-to veščju] (radi **KA**ždoj podrugi)   F>
Masha sacrificed [some thing]$_{INSTR}$ [for the sake of every girlfriend]$_{GEN}$
'Masha sacrificed some thing for the sake of every girlfriend'
b. Maša požertvovala (radi kakoj-to podrugi) [**KA**ždoj veščju]   F<
Masha sacrificed [for the sake of some girlfriend]$_{GEN}$ [every thing]$_{INSTR}$
 'Masha sacrificed, for the sake of some girlfriend, every thing'

(21) a. Maša prostila [kakoe-to predatelstvo] (**KA**ždoj podruge)   F>
Masha forgave [some betrayal]$_{ACC}$ [every girlfriend]$_{DAT}$
'Masha forgave some betrayal to every girlfriend'
b. Maša prostila (kakoj-to podruge) [**KA**ždoe predatelstvo]   F<
Masha forgave [some girlfriend]$_{DAT}$ [every betrayal]$_{ACC}$
'Masha forgave some girlfriend every betrayal'

(22) a. Vanja prines [kakuju-to novost'] (**KA**ždoj sem'e)   F>
Vania brought [some news]$_{ACC}$ [every family]$_{DAT}$
'Vania brought some piece of news to every family'
b. Vanja prines (kakoj-to sem'e) [**KA**žduju novost']   F<
Vania brought [some family]$_{DAT}$ [every news]$_{ACC}$
'Vania brought some family every piece of news'

Thus, the conclusion to be drawn from the data so far appears to be this: while in scopally ambiguous sentences contrastive focus placed on the second object forces wide scope for the focused phrase, in scope frozen sentences focus is not able to override whatever restrictions on scope exist in scope frozen contexts.

7.2.2 "Reverse ES Pattern" Group

The above conclusion is supported by the scopal behavior of the predicates in the second group:

(23) a. Maša obozvala (kakim-to prozviščem) [**KA**ždogo mal'čika]   F>
Masha called [some nickname]$_{INSTR}$ [every boy]$_{ACC}$
'Masha called every boy by some nickname'

b. Maša obozvala [kakogo-to mal'čika] (**KA**ždym prozviščem)   F<
Masha called [some boy]$_{ACC}$ [every nickname]$_{INSTR}$
'Masha called some boy by every nickname'

(24)   a. Maša očistila (ot kakogo-to parazita) [**KA**ždyj dom]   F>
Masha cleared [from some pest]$_{GEN}$ [every house]$_{ACC}$
'Masha cleared every house of some pest'
b. Maša očistila [kakoj-to dom] (ot **KA**ždogo parazita)   F<
Masha cleared [some house]$_{ACC}$ [from every pest]$_{GEN}$
'Masha cleared some house of every pest'

(25)   a. Maša obidela (kakim-to priznaniem) [**KA**ždogo druga]   F>
Masha insulted [some confession]$_{INSTR}$ [every friend]$_{ACC}$
'Masha insulted every friend with some confession'
b. Maša obidela [kakogo-to druga] (**KA**ždym priznaniem)   F<
Masha insulted [some friend]$_{ACC}$ [every confession]$_{INSTR}$
'Masha insulted some friend with every confession'

(26)   a. Maša ugostila (kakim-to pečen'em) [**KA**ždogo rebenka]   F>
Masha treated [some cookie]$_{INSTR}$ [every child]$_{ACC}$
'Masha treated every child to some cookie'
b. Maša ugostila [kakogo-to rebenka] (**KA**ždym pečen'em)   F<
Masha treated [some child]$_{ACC}$ [every cookie]$_{INSTR}$
'Masha treated some child to every cookie'

(27)   a. Maša pobryzgala (kakimi-to duxami) [**KA**žduju klientku]   F>
Masha sprayed [some perfume]$_{INSTR}$ [every client]$_{ACC}$
'Masha sprayed some perfume over every client'
b. Maša pobryzgala [kakuju-to klientku] (**KA**ždymi duxami)   F<
Masha sprayed [some client]$_{ACC}$ [every perfume]$_{INSTR}$
'Masha sprayed some client with every perfume'

We can see then, that although the predicates in Group 1 and Group 2 are mirror images of each other with respect to which order of internal arguments yields frozen surface scope, they behave homogeneously with respect to scope in contrastive focus context: in both Groups contrastive focus on the quantificational determiner of the lower object in ambiguous sentences forces wide scope for the focused object while in frozen scope sentences, scope is unaffected by focus. Group 3, on the other hand, is the one that is different here (though predictably so, given the results with the other two groups) in that both orders of internal predicates (which are scopally ambiguous) in contrastive focus contexts yield wide scope for the focused phrase.

7.2.3. "Free Pattern" Group

(28)   a. Maša napisala [kakoj-to slogan] (na **KA**ždoj stene)   F>
Masha wrote [some slogan]$_{ACC}$ [$_{PP}$ on every wall]$_{DAT}$
'Masha wrote some slogan on every wall'
b. Maša napisala (na kakoj-to stene) [**KA**ždyj slogan]   F>
Masha wrote [$_{PP}$ on some wall]$_{DAT}$ [every slogan]$_{ACC}$
'Masha wrote every slogan on some wall'

(29)   a. Vania zagruzil [kakoj-to kirpič] *(v **KA**ždyi vagon)   F>
Vania loaded [some brick]$_{ACC}$ [$_{PP}$ into every carriage]$_{ACC}$
'Vania loaded some brick into every carriage'
b. Vania zagruzil *(v kakoj-to vagon) [**KA**ždyj kirpič]   F>
Vania loaded [$_{PP}$ into some carriage]$_{ACC}$ [every brick]$_{ACC}$
'Vania loaded every brick onto some carriage'

(30)   a. Vania zalil [kakuju-to židkost'] *(v **KA**ždyi bak)   F>
Vania poured [some liquid]$_{ACC}$ [$_{PP}$ into every tank]$_{ACC}$
'Vania poured some liquid into every tank'
b. Vania zalil *(v kakoj-to bak) [**KA**žduju židkost']   F>
Vania poured [$_{PP}$ into some tank]$_{ACC}$ [every liquid]$_{ACC}$
'Vania poured every liquid into some tank'

(31)   a. Maša razmestila [kakoe-to soobšenije] *(v **KA**ždoi gazete)   F>
Masha posted [some message]$_{ACC}$ [in every newspaper]$_{PREP}$
'Masha posted some message in every newspaper'
b. Maša razmestila *(v kakoj-to gazete) [**KA**ždoje soobšenije]   F>
Masha posted [in some newspaper]$_{PREP}$ [every message]$_{ACC}$
'Masha posted every message in some newspaper'

(32)   a. Maša zagruzila [kakuju-to programmu] (na **KA**ždyj komp'juter)   F>
Masha uploaded [some program]$_{ACC}$ [on every computer]$_{ACC}$
'Masha uploaded some program to every computer'
b. Maša zagruzila (na kakoj-to komp'juter) [**KA**žduju programmu]   F>
Masha uploaded [on some computer]$_{ACC}$ [every program]$_{ACC}$
'Masha uploaded every program to some computer'

(33)   a. Maša obrisovala [kakuju-to situaciju] (**KA**ždomu partneru)   F>
Masha sketched [some situation]$_{ACC}$ [every partner]$_{DAT}$
'Masha sketched some situation to every partner'
b. Maša obrisovala (kakomu-to partneru) [**KA**žduju situaciju]   F>
Masha sketched [some partner]$_{DAT}$ [every situation]$_{ACC}$
'Masha sketched for some partner every situation'

It should be noted that while with Group 2 predicates the scope intuitions are extremely strong and clear, some predicates from Group 1 where the Oblique >> Accusative order initially seemed to yield frozen surface scope were eventually classified into Group 3 since some of the tests have shown that the scope is not frozen after all, there is just a strong preference for surface scope. Contrastive focus turned out to be one of such tests: in cases where judgments on whether scope is frozen or not are unclear, this test helps sharpen the intuitions: where there is only a preference for surface scope but not a requirement that scope be confined to that determined by c-command, focus forces the wide scope for the contrastively focused argument; where scope is indeed frozen, contrastive focus on the lower object cannot "free" scope in this way. Thus, contrastive focus on the lower object appears to provide a reliable test for frozen surface scope in Russian ditransitives.

7.3 Is There Movement in Frozen Scope Contexts? Evidence from ACD in Russian Ditransitives

The results obtained in the previous section, namely the finding that contrastive focus on the lower object forces wide scope for the focused QP in the scopally ambiguous ditransitive sentences and does not change scope relations in the surface frozen ditransitives, raises the question about the mechanisms responsible for scope assignment in the two cases just described. While it is natural to conclude that contrastive focus on the lower QP in the former case raises the QP to a high contrastive focus position (thus deriving wide scope for the QP), such movement seems to be prohibited or restricted in the latter case by whatever principle leads to frozen surface scope in the first place. The question to ask in this respect is then, does movement happen at all in the Russian sentences where scope is frozen, or is it simply restricted in the way described for English in Bruening (2001)[169]?

7.3.1 Bruening (2001): ACD in Frozen Scope Contexts in English

Kennedy (1997) has observed that grammaticality of ACD correlates with the wide scope of the QP that is involved in the resolution of ellipsis. Thus, if the relevant QP is not able to raise high enough to obtain wide scope necessary to successfully resolve ellipsis, ACD is ungrammatical. Additionally, Sag (1976) and Larson and May (1990) have argued that the scope of a QP in an ACD context is restricted by the interpretation of ellipsis such that the QP hosting the ACD must take scope over the verb that is interpreted as the

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[169] The question is a bit rhetorical as we already saw evidence in Chapter 3 supporting the conclusion that movement does indeed take place in frozen surface scope contexts. It is good however to see if we can adduce novel/additional evidence in support of this conclusion and to verify that it is indeed a valid one.

antecedent for ellipsis. This is supported by the lack of the *de dicto* readings in ACD sentences involving intensional predicates. Given these results, it is natural to wonder what happens in frozen scope contexts. As noted by Bruening, one of two things seems likely: either ACD will be ungrammatical in such contexts or it will somehow "free up" scope, since wide scope of the hosting QP is necessary for ACD interpretation. Instead, as Bruening shows, ACD is grammatical, but the relative scope of the two QPs remains unchanged, with the lower QP still taking scope below the higher one. Consider his examples[170]:

(34) a. Ozzy gave someone everything. *every > some
      b. Ozzy gave someone everything that Belinda did [vp Δ]. *every > some

(35) a. Cleo wrapped a (#different) bedpost with every dress. *every > a
      b. Cleo wrapped a (#different) bedpost with every dress Chloe did [vp Δ].
      *every > a

The strongest piece of evidence suggesting movement takes place even in frozen scope contexts comes from ACD sentences with intensional predicates. As noted above, Larson and May (1990) found that the QP hosting ACD must scope above the intensional predicate interpreted as the antecedent for the ellipsis. Bruening (2001) shows that the same holds in frozen scope contexts[171]:

(36) a. I refused to load the truck with every box you told me to dump.
      De dicto: what I refused to do was to put any boxes that you had commanded me to dump on the truck (perhaps without even knowing which ones they were)
      De re: what I did was refuse to load the truck with a set of boxes, each of which you had told me to dump (perhaps I had forgotten which ones they were)

      b. I refused to load the truck with every box you told me to [vp refuse to load the truck with].
      De re: every box is such that I refused to load the truck with it (there were potentially multiple refusals, not a single categorical refusal).

Finally, he shows that both QPs in ACD contexts must raise above the intensional predicate, as indicated by the scope judgents in the following sentences:

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[170] In these examples only the unavailable interpretations are indicated; the other scope in these sentences is obviously possible.
[171] Bruening's examples below show only the available readings; here I replicate his examples without changing this notational practice.

(37) a. Ozzy refused to fill a glass with every drink that Monty did [_{VP} refused to fill].
De re **(a > every > refuse):** there was a single glass into which Ozzy refused to put all of the drinks that Monty also refused to put there;

b. Reuben wanted to award an athlete every medal Eva did [_{VP} wanted to award].
De re (an > every > want): there was an athlete such that Reuben wanted to award him every medal Eva wanted to award him.

c. Ozzy refused to fill a glass with every drink.
De dicto **(refuse > a > every):** what Ozzy refused was fill any glass with every drink (sequentially or at once);
De re **(a > every > refuse):** Ozzy refused to fill a specific glass with every drink.

We see that while the ACD examples created on the basis of frozen scope spray-load (37a) and frozen scope double object construction (37b) allow only the wide scope for both QPs with respect to the verb (but with relative order of the two QPs fixed), (37c), a non-ACD spray-load sentence which serves as a control allows both the high and the low reading of the QPs with respect to the verb, but again, with the relative order of the QPs similarly fixed. This triplet of sentences convincingly demonstrates that there is indeed QR in frozen scope ACD examples, but one which preserves the fixed relative order of the two QPs.

In the following sections of this Appendix I will use the above tests from Bruening to see whether there is movement of the second object in the Russian frozen scope cases.

7.3.2 Group 1: "ES Pattern"

In this section we will examine the behavior of Group 1 predicates with respect to the ACD test. Let us consider the examples. The (a) and (b) sentences are simple ditransitive sentences that demonstrate the scope properties on the two orders of internal argments; the (c) and (d) examples are the ACD constructions built from them. I present a number of these examples with a variety of predicates so that the reader can verify that they all pattern the same way. The interpretations available in the ACD examples are shown for the sentence in (38). The rest of the examples behave in exactly the same way, and so only available interpretations are indicated[172].

(38) a. Maša našla   [kakuju-to knigu]   (každomu studentu)   **amb**
       Masha found   [some book]_{ACC}   [every student]_{DAT}
       'Masha found some book for every student'

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[172] "Frozen" next to an example always refers to fixed surface scope.

b. Maša našla   (kakomu-to studentu)   [každuju knigu]   **frozen**
Masha found   [some student]$_{DAT}$ [every book]$_{ACC}$
'Masha found some student every book'

c. Maša našla   [kakuju-to knigu]   [každomu studentu, čto i ja]   **amb**
Masha found   [some book]$_{ACC}$ [[every student]$_{DAT}$ that also I]
'Masha found some book for every student I did'

(some > every): for some book x, Masha found x for every student I found x for;

(every > some): for every student x that I found some book for, Masha found some book (or other) for x.

d. Maša našla   [kakomu-to studentu] [každuju knigu, čto i ja]   **frozen**
Masha found   [some student]$_{DAT}$ [[every book]$_{ACC}$ that also I]
'Masha found some student every book I did'

(some > every): for some student x, Masha found x every book I did.

***(every > some):** for every book x, Masha found x for some student or other.

(39)   a. Maša porekomendovala   [kakuju-to proceduru] *(každoj pacientke)   **amb**
Masha recommended   [some procedure]$_{ACC}$ [every patient]$_{DAT}$
'Masha recommended some procedure to every patient'

b. Maša porekomendovala *(kakoj-to pacientke) [každuju proceduru]   **frozen**
Masha recommended [some patient]$_{DAT}$ [every procedure]$_{ACC}$
'Masha recommended some patient every procedure'

c. Maša porekomendovala [kakuju-to proceduru][každoj pacientke, čto i ja] **amb**
Masha recommended [some procedure]$_{ACC}$ [[every patient]$_{DAT}$ that also I]
'Masha recommended some procedure to every patient I did'

d. Maša porekomendovala [kakoj-to pacientke][každuju proceduru, čto i ja]**frozen**
Masha recommended [some patient]$_{DAT}$ [[every procedure]$_{ACC}$ that also I]
'Masha recommended some patient every procedure I did'

(40)   a. Maša   potrebovala [kakoj-to document] (s každogo posetitelja)   **amb**
Masha   demanded [some document]$_{ACC}$ [from every visitor]$_{GEN}$
'Masha demanded some document from every visitor'

b. Maša   potrebovala (s kakogo-to posetitelja) [každyj document]   **frozen**
Masha   demanded [from some visitor]$_{GEN}$ [every document]$_{ACC}$
'Masha demanded from some visitor every document'

c. Maša potrebovala [kakoj-to document] [(s každogo posetitelja), čto i ja] **amb**
Masha demanded [some document]$_{ACC}$ [[from every visitor]$_{GEN}$ that also I]
'Masha demanded some documents from every visitor I did'

d. Maša potrebovala (s kakogo-to posetitelja) [každyj document,čto i ja]   **frozen**

Masha demanded [from some visitor]$_{GEN}$ [[every document]$_{ACC}$ that also I]
'Masha demanded from some visitor every document I did'

(41) a. Maša požertvovala [kakoj-to veščju] (radi každoj podrugi)   **amb**
          Masha sacrificed [some thing]$_{INSTR}$ [for the sake of every girlfriend]$_{GEN}$
          'Masha sacrificed some thing for the sake of every girlfriend'
      b. Maša požertvovala (radi kakoj-to podrugi) [každoj veščju]   **frozen**
          Masha sacrificed [for the sake of some girlfriend]$_{GEN}$ [every thing]$_{INSTR}$
          'Masha sacrificed, for the sake of some girlfriend, every thing'
      c. Maša požertvovala [kakoj-to veščju] [(radi každoj podrugi), čto i ja] **amb**
          Masha sacrificed [some thing]$_{INSTR}$ [[for the sake of every girlfriend]$_{GEN}$ that
          also I]
          'Masha sacrificed some thing for the sake of every girlfriend I did'

      d. Maša požertvovala (radi kakoj-to podrugi) [každoj veščju, čto i ja]   **frozen**
          Masha sacrificed [for the sake of some girlfriend]$_{GEN}$ [[every thing]$_{INSTR}$ that
also I]
          'Masha sacrificed for the sake of some girlfriend every thing I did'

The first thing to note about the ACD sentences built from the above examples is that all such sentences are grammatical, which indicates that covert QR of the lower object does indeed take place, even in the scopally frozen sentences. Secondly, the Accusative >> Oblique ACD sentences are scopally ambiguous, just as their non-ACD counterparts are. The Oblique >> Accusative sentences are scopally frozen though, with the lower object necessarily taking scope below the higher object, suggesting both objects raise in a manner that preserves their relative order. Thus, it appears that the parallelism between English and Russian continues to hold, indicating that the same processes are involved in both languages.

7.3.3 Group 2: "Reverse ES Pattern"

Consider the examples of Group 2 verbs below. Again, the interpretations of the ACD sentences are written out for the first example (42) only; for the rest, which behave similarly, only available scopes are indicated.

(42) a. Maša   obeskuražila (kakim-to postupkom) [každogo opponenta]   **amb**
          Masha   discouraged [some act]$_{INSTR}$ [every opponent]$_{ACC}$
          'Masha discouraged with some act every opponent'
      b. Maša obeskuražila [kakogo-to opponenta] (každym postupkom)   **frozen**
          Masha discouraged [some opponent]$_{ACC}$ [every act]$_{INSTR}$
          'Masha discouraged some opponent with every act'
      c. Maša obeskuražila (kakim-to postupkom) [každogo opponenta, čto i ja] **amb**

Masha discouraged [some act]_{INSTR} [[every opponent]_{ACC} that also I]

'Masha discouraged with some act every opponent I did'

(some > every): Masha discouraged every opponent with some act x, such that I also discouraged every opponent with x.

(every > some): for every opponent x that I discouraged with some act, Masha discouraged x with some act or other.

d. Maša obeskuražila [kakogo-to opponenta] [(každym postupkom), čto i ja] **frozen**

Masha discouraged [some opponent]_{ACC} [[every act]_{INSTR} that also I]

'Masha discouraged some opponent with every act I did'

(some > every): for some opponent x, Masha discouraged x with every act I discouraged x with.

***(every > some):** for every act x, such that I discouraged some opponent y with, Masha discouraged y with x.

(43) a. Maša otmetila (za kakoe-to dostiženie) [každogo rabotnika] **amb**

Masha celebrated [_{PP} for some achievement] [every worker]_{ACC}

'Masha celebrated for some achievement every worker'

b. Maša otmetila [kakogo-to rabotnika] (za každoe dostiženie) **frozen**

Masha celebrated [some worker]_{ACC} [_{PP} for every achievement]

'Masha celebrated some worker for every achievement'

c. Maša otmetila (za kakoe-to dostiženie) [každogo rabotnika, čto i ja] **amb**

Masha celebrated [_{PP} for some achievement] [[every worker]_{ACC} that also I]

'Masha celebrated for some achievement every worker I did'

d. Maša otmetila [kakogo-to rabotnika] [(za každoe dostiženie), čto i ja] **frozen**

Masha celebrated [some worker]_{ACC} [[_{PP} for every achievement] that also I]

'Masha celebrated some worker for every achievement I did'

(44) a. Maša pozdravila (s kakim-to prazdnikom) [každogo kollegu] **amb**

Masha congratulated [_{PP} with some holiday]_{INSTR} [every colleague]_{ACC}

'Masha congratulated with some holiday every colleague'

b. Maša pozdravila [kakogo-to kollegu] (s každym prazdnikom) **frozen**

Masha congratulated [some colleague]_{ACC} [_{PP} with every holiday]_{INSTR}

'Masha congratulated some colleague with every holiday'

c. Maša pozdravila (s kakim-to prazdnikom) [každogo kollegu, čto i ja] **amb**

Masha congratulated[with some holiday]_{INSTR} [[every colleague]_{ACC} that also I]

'Masha congratulated with some holiday every colleague I did'

d. Maša pozdravila [kakogo-to kollegu] [(s každym prazdnikom),čto i ja] **frozen**

Masha congratulated [some colleague]_{ACC} [[with every holiday]_{INSTR}that also I]

'Masha congratulated some colleague with every holiday I did'

(45) a. Maša pobryzgala (kakimi-to duxami) [každuju klientku] **amb**
Masha sprayed [some perfume]$_{INSTR}$ [every client]$_{ACC}$
'Masha sprayed some perfume over every client'

b. Maša pobryzgala [kakuju-to klientku] (každymi duxami) **frozen**
Masha sprayed [some client]$_{ACC}$ [every perfume]$_{INSTR}$
'Masha sprayed some client with every perfume'

c. Maša pobryzgala (kakimi-to duxami) [každuju klientku, čto i ja] **amb**
Masha sprayed [some perfume]$_{INSTR}$ [[every client]$_{ACC}$ that also I]
'Masha sprayed some perfume over every client'

d. Maša pobryzgala kakuju-to klientku (každymi duxami), čto i ja **frozen**
Masha sprayed [some client]$_{ACC}$ [[every perfume]$_{INSTR}$ that also I]
'Masha sprayed some client with every perfume'

The conclusion that can be reached on the basis of Group 2 verbs is the same as that reached in the previous section: ACD sentences with these ditransitives are grammatical, suggesting QR is taking place. Moreover, the Group 2 pattern where the order Accusative >> Oblique is scopally frozen is upheld in ACD counterparts of these examples, further suggesting that QR takes place even in scope frozen ACD examples, but in a manner that preserves the order of the two internal arguments. There is thus no difference between the two groups of verbs with respect to the ACD test.

7.3.4 Group 3: "Free Pattern"

Finally, let us take a look at a few examples from Group 3[173].

(46) a. Maša obrisovala [kakuju-to situaciju] [každomu voennomu] **amb**
Masha sketched [some situation]$_{ACC}$ [every soldier]$_{DAT}$
'Masha sketched some situation for every soldier'

b. Maša obrisovala [kakomu-to voennomu] [každuju situaciju] **?amb**
Masha sketched [some soldier]$_{DAT}$ [every situation]$_{ACC}$
'Masha sketched for some soldier every situation'

c. Maša obrisovala [kakuju-to situaciju] [každomu voennomu, čto i ja] **amb**
Masha sketched [some situation]$_{ACC}$ [every soldier]$_{DAT}$
'Masha sketched some situation for every soldier'

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[173] As was noted before, the scope judgments on some of the verbs in this Group are somewhat less clear than those in Group 2, where the judgments are always crystal clear. With Group 3, the orders marked with a question mark (as in (46b), (47b)), initially seem scope frozen (or least show a very strong preference for surface scope) and because it is always the order Oblique >> Accusative that seems scope frozen, some of the verbs have been initially classified into Group 1. However, other tests, such as Contrastive Focus and Passivization (to be discussed below), help clarify the judgments and see that these verbs belong in Group 3.

(some >every): for some situation x, Masha sketched x for every soldier that I sketched x for;

(every > some): for every soldier x that I sketched some situation for, Masha sketched some situation or other for.

    d. Maša obrisovala   [kakomu-to voennomu] [každuju situaciju, čto i ja] **?amb**
       Masha sketched   [some soldier]**DAT** [every situation]**ACC**
       'Masha sketched for some soldier every situation'

(some > every): for some solider x, Masha sketched every situation for x that I sketched for x.

(every > some): for every situation x that I sketched for some soldier, Masha sketched x for some soldier or other.

(47)   a. Maša zagnala   *(v kakoj-to ugol)   [každuju sobaku]   **amb**
       Masha herded   [in some corner]**PREP** [every dog]**ACC**
       'Masha herded into some corner every dog'
    b. Maša zagnala   [kakuju-to sobaku]   *(v každyj ugol)   **?amb**
       Masha herded   [some dog]**ACC**   [in every corner]**PREP**
       'Masha herded some dog into every corner'
    c. Maša zagnala   [v kakoj-to ugol]   [každuju sobaku, čto i ja]   **amb**
       Masha herded   [in some corner]**PREP** [[every dog]**ACC** that also I]
       'Masha herded into some corner every dog I did'
    d. Maša zagnala   [kakuju-to sobaku]   [v každyj ugol, čto i ja]   **?amb**
       Masha herded   [some dog]**ACC**   [[in every corner]**PREP** that also I]
       'Masha herded some dog into every corner'

(48)   a. Vanja prisojedinil [kakoe-to ustrojstvo] *(k každoj mašine)   **amb**
       Vania attached   [some device]**ACC**   [PP to every car]**DAT**
       'Vania attached some device to every car'
    b. Vanja prisojedinil *(k kakoj-to mašine) [každoe ustrojstvo]   **amb**
       Vania attached [PP to some car]**DAT** [every device]**ACC**
       'Vania attached to some car every device'
    c. Vanja prisojedinil [kakoe-to ustrojstvo] [*(k každoj mašine), čto i ja]   **amb**
       Vania attached   [some device]**ACC**   [[PP to every car]**DAT** that also I]
       'Vania attached some device to every car I did'
    d. Vanja prisojedinil [*(k kakoj-to mašine)] [každoe ustrojstvo, čto i ja]   **amb**
       Vania attached [PP to some car]**DAT** [[every device]**ACC** that also I]
       'Vania attached to some car every device'

(49)   a. Maša zaveščala   [*(kakoe-to imenie)] [*(každomu drugu)]   **amb**
       Masha bequeathed [some estate]**ACC**   [every friend]**DAT**

'Masha bequeathed some estate to every friend'

b. Maša zaveščala   [*(kakomu-to drugu)] [*(každoe imenie)]   **amb**
   Masha bequeathed [some friend]$_{DAT}$ [every estate]$_{ACC}$
   'Masha bequeathed to some friend every estate'

c. Maša zaveščala   [*(kakoje-to imenie)] [*(každomu drugu), čto i ja] amb
   Masha bequeathed [some estate]$_{ACC}$ [every friend]$_{DAT}$
   'Masha bequeathed some estate to every friend I did'

d. Maša zaveščala   [*(kakomu-to drugu)] [*(každoe imenie),čto i ja]   amb
   Masha bequeathed [some friend]$_{DAT}$ [every estate]$_{ACC}$
   'Masha bequeathed to some friend every estate'

Thus we see that the three groups of predicates behave in a unified way with respect to the ACD test, with all predicates allowing ACD sentences. The main general conclusion to be drawn from this test is that the lower object in scopally frozen sentences does indeed undergo raising, although in a way that preserves the relative order of the two internal predicates with the higher object taking scope over the lower one. The ACD test applied to the Group 3 predicates further confirms that the two orders are scopally ambiguous, with either object being able to take scope above the other one.

7.4 Is There Movement in Frozen Scope Contexts? Additional Evidence from Intensional Predicates and ACD in Russian Ditransitives

In this section we will look at ACD sentences with intensional predicates. Remember that Larson and May (1990) have shown that the interpretation of a QP hosting ACD is restricted in such a way that the QP must take scope above the intensional verb that is interpreted as the antecedent for the ellipsis. Bruening (2001) has further shown that Larson and May's observation holds in frozen scope contexts as well, providing one of the strongest pieces of evidence that movement of the lower QP does take place in frozen scope contexts.

7.4.1 Group 1

The situation just described for English holds for Russian as well. As can be seen from the example below, the *de dicto* readings that are available in non-ACD examples with intensional predicates suddenly disappear when ACD is formed on the basis of these sentences. Thus, while (50a,b) are ambiguous between the *de dicto* and *de re* interpretations, (50c,d) only allow the wide scope for the QP, or the *de re* interpretation. Furthermore, the surface scope frozen (50d) allows only one interpretation on which the

lower QP scopes below the higher one, which strongly suggests that the two must be moving in an order-preserving manner.

(50)   a. Maša otkazalas' podarit'   [kakuju-to knigu]   (každomu studentu)
             Masha refused   to.gift   [some book]_{ACC}   [every student]_{DAT}
De dicto (refuse> some > every): Masha refused the act of gifting some book (any book) to every student;
De dicto (refuse > every > some): what Masha refused was to gift every student with a book (possibly a different book for each student);
De re (some > every > refuse): there is a book such that Masha refused to gift this book to every student;
De re (every > some > book): for every student x, Masha refused to gift x with some book or other.
        b. Maša otkazalas' podarit'   (kakomu-to studentu) [každuju knigu]
            Masha refused   to.gift [some student]_{DAT}   [every book]_{ACC}
De Dicto (refuse > some > every): what Masha did was refuse to gift a student (any student) with every book;
De re (some > every > refuse): there is a student x such that Masha refused to gift x with every book.

        c. Maša otkazalas'   podarit' [kakuju-to knigu] [(každomu studentu), čto i ja]
            Masha refused   to.gift [some book]_{ACC} [[every student]_{DAT} that also I]
De re (some > every > refuse): there is a book x such that Masha refused to gift x to every student I refused to gift x to.
De re (every > some > refuse): for every student x I refused to gift some book or other to, Masha refused to gift x some book to as well.

        d. Maša otkazalas' podarit'   (kakomu-to studentu) [[každuju knigu], čto i ja]
            Masha refused to.gift   [some student]_{DAT}   [[every book]_{ACC} that also I]
De re (some > every > refuse): there is a student x such that Masha refused to gift x every book I refused to gift to x.

7.4.2 Group 2

Unsurprisingly, the Group 2 or the "Unexpected/Reverse ES Pattern" predicates behave in exactly the same way as Group 1 predicates just described above. This is predicted, as the only scope-related difference between the two groups discussed so far is the order of the two internal arguments that results in frozen surface scope. Thus, in a parallel fashion, (51d) is a fully disambiguated sentence that allows only the *de re* interpretation on which the two QPs scope above the intensional predicate but with their relative scope preserved.

(51)   a. Maša otkazalas' pozdravit' (s kakim-to prazdnikom)   [každogo kollegu]
        Masha refused to.congratulate [with some holiday]_{INSTR} [every colleague]_{ACC}
   De dicto (refuse > some > every): what Masha refused was the act of congratulating with some holiday every colleague;
   De dicto (refuse > every > some): what Masha refused to do was congratulate every one of her colleagues with some holiday or other;
   De re (some > every > refuse): there is a holiday x such that Masha refused to congratulate every colleague with x;
   De re (every > some > refuse): for every colleague x, Masha refused to congratulate x with some holiday or other.

   b. Maša otkazalas' pozdravit' [kakogo-to kollegu]   (s každym prazdnikom)
        Masha refused to.congratulate [some colleague]_{ACC} [with every holiday]_{INSTR}
   De dicto (refuse > some > every): Masha refused the act of congratulating some colleague (whoever that is) with every holiday;
   De re (some > every > refuse): For some specific colleague x, Masha refused to congratulate x with every holiday;

   c. Maša otkazalas' pozdravit'(s kakim-to prazdnikom)[[každogo kollegu], čto i ja]
        Masha refused to.congratulate [with some holiday]_{INSTR}[[every colleague]_{ACC} that also I]
        'Masha congratulated with some holiday every colleague I did'
   De re (some > every > refuse): there is a holiday x such that Masha refused to congratulate with x every colleague y that I refused to congratulate with x;
   De re (every > some > refuse): for every colleague x I refused to congratulate with some holiday or other, Masha refused to congratulate x with some holiday or other as well.

   d. Maša otkazalas'pozdravit'[kakogo-to kollegu][(s každym prazdnikom),čto i ja]
        Masha refused to.congratulate [some colleague]_{ACC} [[with every holiday]_{INSTR} that also I]
        'Masha congratulated some colleague with every holiday I did'
   De re (some > every > refuse): there is a colleague x such that Masha refused to congratulate x with every holiday that I also refused to congratulate x with.

7.4.3. "The Free Pattern"/Group 3 Predicates

Finally, Group 3 verbs are interesting in that they are expectedly different from the other two groups in allowing either object to take wide scope on the *de re* interpretation. Thus,

sentences such as (52d) are scopally ambiguous in allowing either object to take wide scope while both objects necessarily scope above the intensional verb.

(52)   a. Maša otkazalas' zaveščat' [kakoje-to imenie]   (každomu drugu)
       Masha refused to.bequeath [some estate]$_{ACC}$ [every friend]$_{DAT}$

De dicto (refuse > some > every): Masha refused the act of bequeathing some estate to every friend;

De dicto (refuse > every > some): Masha refused to bequeath to every friend some estate or other;

De re (some > every > refuse): there is an estate x such that Masha refused to bequeath x to every friend;

De re (every > some > refuse): for every friend x, Masha refused to bequeath some estate or other to x.

b. Maša otkazalas' zaveščat' (kakomu-to drugu)   [každoje imenie]
   Masha refused to.bequeath   [some friend]$_{DAT}$ [every estate]$_{ACC}$

De dicto (refuse > some > every): what Masha refused was bequeathing some friend or other every estate;

De dicto (refuse > every > some): what Masha refused was bequeath every estate to some friend or other.

De re (some > every > refuse): there is a friend x such that for every estate y Masha refused to bequeath y to x;

De re (every > some > refuse): for every estate x, for some friend y, Masha refused to bequeath x to y.

c. Maša otkazalas' zaveščat' [kakoje-to imenie]   [(každomu drugu), čto i ja]
   Masha refused to.bequeath [some estate]$_{ACC}$ [[every friend]$_{DAT}$ that also I]

De re (some > every > refuse): there is an estate x such that Masha refused to bequeath x to every friend I refused to bequeath x to;

De re (every > some > refuse): for every friend x I refused to bequeath some estate y to, Masha refused to bequeath y to x as well.

d. Maša otkazalas' zaveščat' (kakomu-to drugu)   [[každoje imenie], čto i ja]
   Masha refused to.bequeath [some friend]$_{DAT}$ [every estate]$_{ACC}$ that also I]

De re (some > every > refuse): there is a friend x such that for every estate y Masha refused to bequeath to x every estate y that I refused to bequeath to x as well;

De re (every > some > refuse): for every estate x, for some friend y, Masha refused to bequeath x to y.

7.5 Passivization Test

Along with Contrastive Focus, one more test turned out to be a successful means of clarifying scope judgments that can occasionally be difficult or unclear. Specifically, passivizing either of the objects in a ditransitive construction appears to sharpen judgments in cases where it is not entirely clear whether scope is indeed frozen. In some cases, passivizing the "higher" object in a sentence that initially seemed scope frozen would suddenly free scope so that the other, inverse scope reading would become salient. In sentences that are truly scope frozen however, passivizing the higher object does not free scope in a similar fashion[174].

7.5.1 Group 1

Consider the Group 1 predicates[175]. Another similarity between Contrastive Focus test and the Passivization test is that in sentences that are initially ambiguous, passivization makes inverse scope, or wide scope for the lower object, much more salient (in the Focus test, inverse scope preference is so strong as to suggest it is the only reading available)[176]. In the scopally frozen sentences, inverse scope, predictably, does not become available. I believe it is this contrast in the effect of passivization between the former and the latter

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[174] Again, the need to clarify judgments only arose for some verbs in Groups 1/3 which, as will be shown in the next section, share a number of other syntactic properties and are thus quite similar. Verbs in Group 2 differ quite strikingly from the verbs in Groups 1/3 with respect to these lexico-semantic tests; correlatively, scope judgments in sentences involving Group 2 verbs are always very clear.

[175] As with other sections, I first present the simple ditransitive sentences that demonstrate available scopes with each word order. Then, the passivized sentences are presented.

[176] It seems to me there is an underlying reason for why the two tests, Contrastive Focus and Pasivization, have a similar scope-clarifying effect. My intuition is that movement of the passivized object to surface subject position creates a particular topic-focus structure. The lower object seems to me to be necessarily interpreted as contrastively focused. Without having tested this intuition with production experiments, I believe the prosody is affected correspondingly, with the first syllable of the lower quantificational determiner receiving a pitch accent. If this tentative explanation is correct, the question then becomes why the surface scope in sentences such as (53c) is at all available, given that with the Contrastive Focus test the inverse scope was the only interpretation available in the corresponding examples. It seems to me the difference again has to do with prosody: while in the Contrastively Focused sentences there is only one possible prosodic contour available for the sentence, this is not the case in the passivized sentences. In the latter type of sentences, two prosodic contours seem to be possible: one corresponding to the contrastively focused sentences (the one that results in obligatory wide scope for the focused second object of an initially ambiguous structure); the second one would be the neutral-intonation contour (or even one requiring certain amount of destressing), without a pitch accent on the second object's determiner. The availability of this second contour, which is still compatible with the information structure partition created by passivization, is what seems to me to be responsible for the availability of the surface scope interpretation in sentences such as (53c, 54c and others like them).

type of sentences that makes this test another useful means of verifying scope judgments in Russian ditransitives[177].

(53) a. Maša potrebovala [kakoj-to document] (s každogo posetitelja)   amb
      Masha demanded [some document]$_{ACC}$ [from every visitor]$_{GEN}$
      'Masha demanded some document from every visitor'

      b. Maša   potrebovala (s kakogo-to posetitelja) [každyj document]   frozen
      Masha demanded [from some visitor]$_{GEN}$ [every document]$_{ACC}$
      'Masha demanded from some visitor every document'

      c. [Kakoj-to document] byl potrebovan [s každogo posetitelja] amb (inverse pref.)
      [Some document]$_{NOM}$ was demanded [from every visitor]$_{GEN}$
      'Some document was demanded from every visitor'

      d. [S kakogo-to posetitelja] byl potrebovan [každyj document]   frozen
      [From some visitor]$_{GEN}$ was demanded [every document]$_{NOM}$
      'From some visitor was demanded every document'

(54) a. Maša požertvovala [kakoj-to veščju] (radi každoj podrugi)   amb
      Masha sacrificed [some thing]$_{INSTR}$ [for the sake of every girlfriend]$_{GEN}$
      'Masha sacrificed some thing for the sake of every girlfriend'

      b. Maša požertvovala (radi kakoj-to podrugi) [každoj veščju][178]   ?frozen
      Masha sacrificed [for the sake of some girlfriend]$_{GEN}$ [every thing]$_{INSTR}$
      'Masha sacrificed, for the sake of some girlfriend, every thing'

      c. [Kakoj-to veščju] bylo požertvovano (radi každoj podrugi)   amb
      [Some thing]$_{INSTR}$ was sacrificed [for the sake of every girlfriend]$_{GEN}$
      'Some thing was sacrificed for the sake of every girlfriend'

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[177] In this section, as in many others, the parenthesized phrase is not necessarily an adjunct, but rather it is an argument phrase that can be dropped without the sentence being judged ungrammatical. Still, its presence in implied; that is, the meaning is that of an elliptical sentence with an unpronounced constituent. The true adjuncts, however, have similarly been parenthesized.

[178] This particular example is one I have some lingering doubts about regarding its classification into Group 1. While overall and on most tests the GEN > INSTR order does seem to be scope frozen, on other tests, quite surprisingly, the judgments are not so clear. Thus, (54d) does not seem to have the fully disambiguating effect that it does with essentially all the other verbs. For this reason I leave open the possibility that this particular predicate may have been misclassified and is in fact one that belongs to Group 3 (Free Pattern) with strong preference for surface scope rather than true scope freezing on the GEN > INSTR order.

d. (Radi kakoj-to podrugi) bylo požertvovano [každoj veščju]   ?frozen
   [For the sake of some girlfriend]_{GEN} was sacrificed [every thing]_{INSTR}
   'For the sake of some girlfriend, every thing was sacrificed'

7.5.2 Group 2

The predicates in Group 2 behave exactly like those in Group 1 in the sense that passivization of the (higher oblique) object in an initially ambiguous structure yields an ambiguous structure, but with strong preference for inverse scope (when produced with respective prosody, see footnote 175), passivization of the (direct) object does not affect scope at all, no matter what prosodic contour is applied to the sentence: the sentence still remains scope frozen[179].

(55) a. Maša   obeskuražila (kakim-to postupkom) [každogo opponenta]   amb
         Masha   discouraged [some act]_{INSTR} [every opponent]_{ACC}
         'Masha discouraged by some act every opponent'

      b. Maša obeskuražila [kakogo-to opponenta] (každym postupkom)   frozen
         Masha discouraged [some opponent]_{ACC} [every act]_{INSTR}
         'Masha discouraged some opponent by every act'

      c. (Kakim-to postupkom) byl obeskuražen [každyj opponent]   amb
         [Some act]_{INSTR} was discouraged [every opponent]_{NOM}
         'Every opponent was discouraged by some act'

      d. [Kakoj-to opponent] byl obeskuražen (každym postupkom)   frozen
         [Some opponent]_{NOM} was discouraged [every act]_{INSTR}
         'Some opponent was discouraged by some act'

(56) a. Maša otmetila   (za kakoe-to dostiženie)   [každogo rabotnika] amb
         Masha celebrated [PREP for some achievement]_{ACC} [every worker]_{ACC}
         'Masha celebrated for some achievement every worker'

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[179] I should note that the term "passivization" does not mean the same thing here when applied to the direct object and to the oblique. To see what I mean by this, consider an example like (55). In (55d) the direct object is truly passivized: it is fronted and surfaces with Nominative case; in (55c), however, the oblique phrase (expectedly) surfaces with the same oblique-case marking. What is interesting is that the direct object in sentences such as (55c), although sentence-final, does not surface with Accusative, but rather with Nominative case. This means that even in such sentences where the oblique is "promoted" to the sentence-initial position, it is the direct object that is passivized, and the passivization-like word order with the fronted oblique is likely due to a further movement operation.

b. Maša otmetila   [kakogo-to rabotnika]   (za každoe dostiženie)   frozen
   Masha celebrated [some worker]$_{ACC}$ [for every achievement]$_{ACC}$
   'Masha celebrated some worker for every achievement'

c. (Za kakoe-to dostiženie) byl otmečen [každyj rabotnik]   amb
   [For some achievement]$_{ACC}$ was celebrated [every worker]$_{NOM}$
   'Every worker was celebrated for some achievement'

d. [Kakoj-to rabotnik] byl otmečen (za každoe dostiženie)   frozen
   [Some worker]$_{NOM}$ was celebrated [for every achievement]$_{ACC}$
   'Some worker was celebrated for every achievement'

7.5.3. "The Free Pattern"/Group 3 Predicates

The passivization test is particularly helpful with Group 3 predicates. As noted above, the passivized structure (for reasons tentatively suggested in footnote 175, or for whatever other reason) helps clarify the judgments so that quite a few sentences that were initially classified as Group 1, were eventually reclassified as Group 3, since these passive sentences made clear that inverse scope was indeed available, just disprefered.

(57)   a. Maša porekomendovala   [kakuju-to proceduru] [každoj pacientke]   amb
       Masha recommended   [some procedure]$_{ACC}$ [every patient]$_{DAT}$
       'Masha recommended some procedure to every patient'

      b. Maša porekomendovala [kakoj-to pacientke][každuju proceduru]   ??frozen
       Masha recommended [some patient]$_{DAT}$ [every procedure]$_{ACC}$
       'Masha recommended some patient every procedure'

      c. [Kakaja-to procedura] byla rekomendovana [každoj pacientke]   amb
       [Some procedure]$_{NOM}$ was recommended [every patient]$_{DAT}$
       'Some procedure was recommended to every patient'

      d. [Kakoj-to pacientke] byla rekomendovana [každaja procedura]   **amb**
       [Some patient]$_{DAT}$ was recommended [every procedure]$_{NOM}$
       ' To some patient was recommended every procedure'

(58)   a. Maša zagnala   (v kakoj-to ugol)   [každuju sobaku]   amb
       Masha herded   [in some corner]$_{PREP}$ [every dog]$_{ACC}$
       'Masha herded into some corner every dog'

b. Maša zagnala   [kakuju-to sobaku]   (v každyj ugol)   amb

     Masha herded   [some dog]$_{ACC}$ [in every corner]

     'Masha herded some dog into every corner'

c. (V kakoj-to ugol) byla zagnana [každaja sobaka]   amb

     [In some corner]$_{PREP}$ was herded [every dog]$_{NOM}$

     'Every dog was herded into some corner'

d. [Kakaja-to sobaka] byla zagnana (v každyj ugol)   amb

     [Some dog]$_{ACC}$ was herded [into every corner]$_{PREP}$

     'Some dog was herded into every corner'

Thus we have now seen a number of syntactic tests corroborating that Russian ditransitives are subdivided into three Groups depending on their scope behavior. The following tests further suggest that the difference in scope behavior for these three verb Groups correlates with the differences in VP-internal base-generated structure that is at least partially determined by thematic roles assigned by the verb to its objects.

7.6 Other Syntactic and Lexico-Semantic Properties of Russian Ditransitives

Having discovered that Russian ditransitive predicates can be subdivided into 3 Groups depending on their scope behavior, it is important to determine what properties are shared by the verbs in each Group. As it turns out, the tests below demonstrate that Group 1 and Group 3 predicates share a number of properties whereas Group 2 verbs behave quite differently on all of the tests to be discussed below and as such form a truly distinct group. These differences provide further justification for positing distinct base-generated structures for the three Groups of ditransitive predicates that were proposed in Chapter 4.

7.6.1 Middle formation test

One of the tests carried out on the verbs of all three Groups was an unaccusative or middle formation test that I created myself. Aware that in English unaccusative verbs can be modified by a resultative adjunct (The vase broke into pieces/John broke the vase into pieces), I attempted to create a syntactic environment that would be conducive to the resultative interpretation. I thus started each sentence with *sročno* (suddenly/immediately) and attached the reflexive verb ending –*sja* to each verb to see what interpretation of the direct object would be derived. The results turned out to be quite interesting. Let us consider the three Groups of verbs in order.

Group 1:

Performing this test on Group 1 predicates showed that the direct object is uniformly interpreted as the THEME. The meaning of these sentences is invariably one where some situation immediately/suddenly obtained due to the action of some unknown Actor or one where some action was suddenly/immediately performed, again by an unknown Actor whose identity is interpreted as being immaterial or/and unknown, making this construction not unlike passives in terms of their semantics[180]. Again, I first present the simple ditransitive versions of these sentences to demontraste the verbs indeed belong to this Group (as demonstrated by word oder-scope correlations); the third sentence in each case is the middle formation test under discussion.

(59)　a. Maša potrebovala [kakie-to dokumenty] (s každogo posetitelja)　(amb)
　　　　Masha demanded [some documents]$_{ACC}$ [$_{PP}$ from every visitor]$_{GEN}$
　　　　'Masha demanded some documents from every visitor'
　　　　b. Maša potrebovala (s kakogo-to posetitelja) [každyj document]　(frozen)
　　　　Masha demanded [$_{PP}$ from some visitor]$_{GEN}$ [every document]$_{ACC}$
　　　　'Masha demanded every document from some visitor'
　　　　c. Sročno potrebovalsja [kakoj-to document]　　　　　　　THEME
　　　　Immediately required$_{REFL}$ [some document]$_{NOM}$
　　　　'Some document was suddenly/immediately needed'

(60)　a. Maša napisala [kakoi-to kommentarij] (k každoi fotografii)　(amb)
　　　　Masha wrote [some comment]$_{ACC}$ [to every photograph]$_{GEN}$
　　　　'Masha wrote some comment to every photograph'
　　　　b. Maša napisala (k kakoj-to fotografii) [každyi kommentarij]　(frozen)
　　　　Masha wrote [to some photograph]$_{GEN}$ [every comment]$_{ACC}$
　　　　'Masha wrote every comment to some photograph'
　　　　c. Sročno napisalsja [kakoj-to kommentrij]　　　　　　　THEME
　　　　Immediately wrote$_{REFL}$ [some comment]$_{NOM}$
　　　　'Some comment was suddenly/immediately written'

(61)　a. Maša požertvovala [kakoj-to vešč'ju] (radi každoj podrugi)　(amb)
　　　　Masha sacrificed [some thing]$_{INSTR}$ [$_{PP}$ for the sake of [every girlfriend]$_{GEN}$]
　　　　'Masha sacrificed some thing for the sake of every girlfriend'
　　　　b. Maša požertvovala (radi kakoj-to podrugi) [každoj vešč'ju]　?(frozen)

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[180] Another sense in which this construction is like passives is the requirement that the object surface bearing Nominative (rather than Accusative or Instrumental) case. This is not immediately obvious in sentences such as (60c, 62c), for instance, where Nominative and Accusative are morphologically identical, but it is clear from cases such as (63c) where the feminine noun Nominative case form is morphologically distinct from the Accusative case marking in (63a-b).

Masha sacrificed [$_{PP}$ for the sake of [some girlfriend]$_{GEN}$] [every thing]$_{GEN}$

'Masha sacrificed, for the sake of some girlfriend, every thing'

c. Sročno požertvovalas' [kakaja-to vešč']¹⁸¹   THEME

Immediately sacrificed$_{REFL}$ [some thing]$_{NOM}$

'Some thing was immediately/suddenly sacrificed'

(62)   a. Maša prostila [kakoe-to predatel'stvo] (každoj podruge)   (amb)

Masha forgave [some betrayal]$_{ACC}$ [every girlfriend]$_{DAT}$

'Masha forgave some betrayal to every girlfriend'

b. Maša prostila (kakoj-to podruge) [každoe predatel'stvo]   (frozen)

Masha forgave [some girlfriend]$_{DAT}$ [every betrayal]$_{ACC}$

'Masha forgave some girlfriend every betrayal'

c. Sročno prostilos' [kakoe-to predatel'stvo]   THEME

Immediately forgave$_{REFL}$ [some betrayal]$_{NOM}$

'Some betrayal was suddenly/immediately forgiven'

(63)   a. Vanja prines [kakuju-to novost'] (každo sem'e)   (amb)

Vania brought [some news]$_{ACC}$ [every family]$_{DAT}$

'Vania brought some piece of news to every family'

b. Vanja prines (kakoj-to sem'e) [každuju novost']   (frozen)

Vania brought [some family]$_{DAT}$ [every news]$_{ACC}$

'Vania brought some family every piece of news'

c. Sročno prineslas' [kakaja-to novost']   THEME

Immediately brought$_{REFL}$ [some news]$_{NOM}$

'Some piece of news was suddenly/immediately brought'

Group 2:

With Group 2 predicates this test yielded very interesting results. While with some verbs the Accusative object interpretation didn't differ from that obtained with Group 1 predicates, namely, the object was interpreted as the THEME (as in ex. (65)), much more often the resulting sentence was ambiguous between the said THEME interpretation and the AGENT or EXPERIENCER interpretation ((64), (66), (68)). Thus while in the former the identity of the Actor performing the action that affects the object is interpreted as being immaterial and/or unknown in the given context, the latter interpretation is one where the object is being interpreted as performing the action (AGENT) or as

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¹⁸¹ There is another variant possible here, which is not available for sentences such as (63c), for instance, for obvious reasons:

(61') c. Sročno požertvovalos' [kakoj-to vešč'ju]$_{INSTR}$ THEME

That is, the Oblique arguments may go into Nominative case, but it doesn't have to, it can stay in the Oblique form.

experiencing the results of the action denoted by the verb (EXPERIENCER). With certain verbs, when the object is ambiguous between the two thematic roles just described, the verb changes its meaning as well, depending on whether the object is interpreted as the THEME or as the AGENT (see ex. (69), for instance).

(64)   a. Maša obozvala (kakim-to prozviščem) [každogo mal'čika]   (amb)
    Masha called [some nickname]$_{INSTR}$ [every boy]$_{ACC}$
    'Masha called every boy by some nickname'
    b. Maša obozvala [kakogo-to mal'čika] (každym prozviščem)   (frozen)
    Masha called [some boy]$_{ACC}$ [every nickname]$_{INSTR}$
    'Masha called some boy by every nickname'
    c. Sročno obozvalsja [kakoj-to mal'čik]   AGENT, THEME
    Immediately called$_{REFL}$ [some boy]$_{NOM}$
    'Some boy was immediately/suddenly called (a bad name/a nickname)'
    'Some boy immediately/suddenly called out' (strongly preferred interpretation)

(65)   a. Maša očistila (ot kakogo-to parazita) [každyj dom]   (amb)
    Masha cleared [$_{PP}$ from some pest]$_{ACC}$ [every house]$_{ACC}$
    'Masha cleared every house of some pest'
    b. Maša očistila [kakoj-to dom] (ot každogo parazita)   (frozen)
    Masha cleared [some house]$_{ACC}$ [$_{PP}$ from every pest]$_{ACC}$
    'Masha cleared some house of every pest'
    c. Sročno očistilsja [kakoj-to dom]   THEME
    Immediately cleared$_{REFL}$ [some house]$_{NOM}$
    'Some house was suddenly/immediately cleared out'

(66)   a. Maša obidela (kakim-to priznaniem) [každogo druga]   (amb)
    Masha insulted [some confession]$_{INSTR}$ [every friend]$_{ACC}$
    'Masha insulted every friend with some confession'
    b. Maša obidela [kakogo-to druga] (každym priznaniem)   (frozen)
    Masha insulted [some friend]$_{ACC}$ [every confession]$_{INSTR}$
    'Masha insulted some friend with every confession'
    c. Sročno obidelsja [kakoj-to drug]   PATIENT, EXPERIENCER
    Immediately insulted$_{REFL}$ [some friend]$_{NOM}$
    'Some friend was suddenly feeling insulted' (preferred inerpreation)
    'Some friend was suddenly insulted (purposefully)

(67)   a. Maša ugostila (kakim-to pečen'em) [každogo rebenka]   (amb)
    Masha treated [some cookie]$_{INSTR}$ [every child]$_{ACC}$
    'Masha treated every child to some cookie'
    b. Maša ugostila [kakogo-to rebenka] (každym pečen'em)   (frozen)
    Masha treated [some child]$_{ACC}$ [every cookie]$_{INSTR}$

'Masha treated some child to every cookie'
c. Sročno ugostilsja [kakoj-to rebenok]   THEME,AGENT/EXPERIENCER
Immediately treated_{REFL} [some child]_{NOM}
'Some child was immediately treated (to some tasty stuff)'
'Some child immediately treated himself (to some tasty stuff)'

(68) a. Maša pobryzgala ?/*(kakimi-to duxami) [každuju klientku]   (amb)
Masha sprayed [some perfume]_{INSTR} [every client]_{ACC}
'Masha sprayed some perfume over every client'
b. Maša pobryzgala [kakuju-to klientku] ?/*(každymi duxami)   (frozen)
Masha sprayed [some client] [every perfume]_{INSTR}
'Masha sprayed some client with every perfume'
c. Sročno pobryzgalas' [kakaja-to klientka]   THEME, AGENT
Immediately sprayed_{REFL} [some client]
'Some client was immediately sprayed (with perfume)'
'Some client immediately sprayed herself (with perfume)'

(69) a. Maša otmetila   (za kakoe-to dostiženie) [každogo rabotnika]   amb
Masha celebrated [_{PP} for some achievement]_{ACC} [every worker]_{ACC}
'Masha celebrated for some achievement every worker'
b. Maša otmetila   [kakogo-to rabotnika] (za každoe dostiženie)   frozen
Masha celebrated [some worker]_{ACC} [for every achievement]_{ACC}
'Masha celebrated some worker for every achievement'
c. Sročno otmetilsja [kakoj-to rabotnik]   THEME, AGENT
Immediately celebrated_{REFL} [some worker]_{NOM}
'Suddenly/immediately some worker was celebrated'
'Suddenly/immediately some worker registered himself'

(70) a. Maša obeskuražila (kakim-to postupkom) každogo opponenta   amb
Masha discouraged [some act]_{INSTR} [every opponent]_{ACC}
'Masha discouraged by some act every opponent'
b. Maša obeskuražila [kakogo-to opponenta] (každym postupkom)   frozen
Masha discouraged [some opponent]_{ACC} [every act]_{INSTR}
'Masha discouraged some opponent by every act'
c. Sročno obeskuražilsja [kakoj-to opponent]   EXPERIENCER
Immediately discouraged_{REFL} [some opponent]_{NOM}
'Suddenly/immediately some opponent felt discouraged'

(71) a. Maša pozdravila   (s kakim-to prazdnikom)   každogo kollegu   amb
Masha congratulated [with some holiday]_{INSTR}   [every colleague]_{ACC}
'Masha congratulated with some holiday every colleague'

b. Maša pozdravila   [kakogo-to kollegu]   (s každym prazdnikom)   frozen
Masha congratulated [some colleague]$_{ACC}$ [with every holiday]$_{INSTR}$
'Masha congratulated some colleague with every holiday'

c. Sročno pozdravilsja [kakoj-to kollega]   THEME, AGENT
Immediately congratulated$_{REFL}$ [some colleague]$_{NOM}$
'Suddenly/immediately some colleague was contratulated' (preferred)
'Suddenly/immediately some colleague contratulated himself'

(72) a. Vanja otvlek [kakim-to manevrom] [každogo voennogo]   amb
Vania distracted [some maneuver]$_{INSTR}$ [every soldier]$_{ACC}$
'Vania distracted with some maneuver every soldier'

b. Vanja otvlek [kakogo-to voennogo] [každym manevrom]   frozen
Vania distracted [some soldier]$_{ACC}$ [every maneuver]$_{INSTR}$
'Vania distracted some soldier with every maneuver'

c. Sročno otvleksja [kakoj-to voennyj]   EXPERIENCER, THEME
Immediately distracted$_{REFL}$ [some soldier]$_{NOM}$
'Some soldier immediately distracted himself'
'Some soldier was suddenly/immediately distracted'

(73) a. Maša zaščitila [ot kakoj-to sobaki] [každogo rebenka]   amb
Masha protected [from some dog]$_{GEN}$ [every child]$_{ACC}$
'Masha protected from some dog every child'

b. Maša zaščitila [kakogo-to rebenka] [ot každoj sobaki]
Masha protected [some child]$_{ACC}$ [from every dog]$_{GEN}$
'Masha protected some child from every dog'

c. Sročno zaščitilsja [kakoj-to rebenok]   AGENT, THEME
Immediately protected$_{REFL}$ [some child]$_{NOM}$
'Some child immediately proteced himself'
'Suddenly/immediately some child was protected'

(74) a. Maša nagradila [kakoj-to medal'ju] [každogo geroja]   amb
Masha awarded [some medal]$_{INSTR}$ [every hero]$_{ACC}$
'Masha awarded some medal to every hero'

b. Maša nagradila [kakogo-to geroja] [každoj medal'ju]   frozen
Masha awarded [some hero]$_{ACC}$ [every medal]$_{INSTR}$
'Masha awarded some hero every medal'

c. Sročno nagradilsja [kakoj-to geroj]   THEME
Immediately awarded$_{REFL}$ [some hero]$_{NOM}$
'Some hero was suddenly/immediately rewarded'

Group 3:

With respect to the Middle Formation test, Group 3 predicates again behave essentially the same way as Group 1 predicates in that their objects are almost uniformly interpreted as the THEME.

(75) a. Maša napisala [kakoj-to slogan] (na každoj stene)   (amb)
      Masha wrote [some slogan]_{ACC} [on every wall]_{DAT}
      'Masha wrote some slogan on every wall'
      b. Maša napisala (na kakoj-to stene) [každyj slogan]   (amb)
      Masha wrote [on some wall]_{DAT} [every slogan]_{ACC}
      'Masha wrote every slogan on some wall'
      c. Sročno napisalsja [kakoj-to slogan]   THEME
      Immediately wrote_{REFL} [some slogan]_{NOM}
      'Some slogan was suddenly/immediately written'

(76) a. Vanja zagruzil [kakoj-to kirpič] *(v každyj vagon)   (amb)
      Vania loaded [some brick]_{ACC} [into every carriage]_{PREP}
      'Vania loaded some brick into every carriage'
      b. Vanja zagruzil *(v kakoj-to vagon) [každyj kirpič]   (amb)
      Vania loaded [into some carriage]_{PREP} [every brick]_{ACC}
      'Vania loaded every brick onto some carriage'
      c. Sročno zagruzilsja [kakoj-to kirpič]   THEME
      Immediately loaded_{REFL} [some brick]_{NOM}
      'Some brick was suddenly/immediately loaded'

(77) a. Vanja zalil [kakuju-to židkost'] *(v každyj bak)   (amb)
      Vania poured [some liquid]_{ACC} [into every tank]_{PREP}
      'Vania poured some liquid into every tank'
      b. Vanja zalil *(v kakoj-to bak) [každuju židkost']   (amb)
      Vania poured [into some tank]_{PREP} [every liquid]_{ACC}
      'Vania poured every liquid into some tank'
      c. Sročno zalilas' [kakaja-to židkost']   THEME
      Immediately poured_{REFL} [some liquid]_{NOM}
      'Some liquid was suddenly/immediately poured (in)'

(78) a. Maša razmestila [kakoje-to soobšenie] *(v každoj gazete)   (amb)
      Masha posted [some message]_{ACC} [in every newspaper]_{PREP}
      'Masha posted some message in every newspaper'
      b. Maša razmestila *(v kakoj-to gazete) [každoe soobšenie] (amb)
      Masha posted [in some newspaper]_{PREP} [every message]_{ACC}
      'Masha posted every message in some newspaper'

c. Sročno razmestilos' [kakoje-to soobšenije]   THEME
Immediately posted_{REFL} [some message]_{NOM}
'Some message was suddenly/immediately posted'

(79)   a. Maša zagruzila [kakuju-to programmu] (na každyj komp'juter) (amb)
Masha uploaded [some program]_{ACC} [_{PP} on every computer]_{PREP}
'Masha uploaded some program to every computer'
b. Maša zagruzila (na kakoj-to komp'juter) [každuju programmu] (amb)
Masha uploaded [on some computer]_{PREP} [every program]_{ACC}
'Masha uploaded every program to some computer'
c. Sročno zagruzilas' [kakaja-to programma]   THEME, ??AGENT
Immediately uploaded_{REFL} [some program]_{NOM}
'Some program was suddenly/immediately uploaded'
'Some program suddenly started (by itself)'

(80)   a. Maša obrisovala [kakuju-to situaciju] (každomu partneru)   (amb)
Masha sketched [some situation]_{ACC} [to every partner]_{DAT}
'Masha sketched some situation to every partner'
b. Maša obrisovala (kakomu-to partneru) [každuju situaciju]   (amb)
Masha sketched [some partner]_{DAT} [every situation]_{ACC}
'Masha sketched for some partner every situation'
c. Sročno obrisovalas' [kakaja-to situacija]   THEME
Immeditely sketched_{REFL} [some situation]_{NOM}
'Some situation was suddenly/immediately sketched'

7.6.2 Distributive po-phrases

Pesetsky (1982) noted that direct objects of transitive predicates and subjects of unaccusative predicates may appear as objects of distributive *po*, while subjects of transitive and unergative predicates typically may not. The distributive *po-* test appears to be quite informative when applied to the three groups of verbs under discussion: it underscores yet again that the Group 2 predicates make up a separate class, distinct from the Group1/3 predicates. It also serves as another indication (in addition to the scope facts) that Group 2 predicates differ from Group 1 (and Group 3) predicates in terms of their base-generated structures as suggested by these tests. Specifically, the tests we have reviewed so far all seem to suggest that the direct objects of Group 1 predicates behave like true objects (i.e., originate in the direct object position), while the direct objects of Group 2 predicates behave as if their direct objects originate in a different position (which in Chapter 4 I argued is a low structural position, below the position of the Oblique argument, with the Accusative-marked object originating inside a null PP).

Group 1:

As can be seen from the examples below, all the verbs in this group can take distributive *po* phrases. Thus again, we see that the verbs in Group 1 behave like unaccusative verbs.

(81)   a. Maša potrebovala [kakie-to dokumenty] (s každogo posetitelja)   (amb)
       Masha demanded [some documents]_{ACC} [from every visitor]_{GEN}
       'Masha demanded some documents from every visitor'
       b. Maša potrebovala (s kakogo-to posetitelja) [každyj document]   (frozen)
       Masha demanded [from some visitor]_{GEN} [every document]_{ACC}
       'Masha demanded every document from some visitor'
       c. √ Maša potrebovala [**po** documentu] [s každogo posetitelja]
       'Masha demanded [**po** document]_{DAT} [from each visitor']_{GEN}
       'Masha demanded one document (each) from every visitor'

(82)   a. Maša napisala [kakoj-to kommentarij] (k každoj fotografii)   (amb)
       Masha wrote [some comment]_{ACC} [_{PP} to every photograph]_{GEN}
       'Masha wrote some comment to every photograph'
       b. Maša napisala (k kakoj-to fotografii) [každyj kommentarij]   (frozen)
       Masha wrote [_{PP} to some photograph]_{GEN} [every comment]_{ACC}
       'Masha wrote every comment to some photograph'
       c. √ Maša napisala [**po** kommentariju] [k každoj fotografii]
        Masha wrote [**po** comment]_{DAT} [to every photograph]
       'Masha wrote a comment to each photograph'

(83)   a. Maša požertvovala [kakoj-to vešč'ju] (radi každoj podrugi)   (amb)
       Masha sacrificed [some thing]_{INSTR} [for the sake of every girlfriend]_{GEN}
       'Masha sacrificed some thing for the sake of every girlfriend'
       b. Maša požertvovala (radi kakoj-to podrugi) [každoj vešč'ju]   ?(frozen)
       Masha sacrificed [for the sake of some girlfriend]_{GEN} [every thing]_{INSTR}
       'Masha sacrificed, for the sake of some girlfriend, every thing'
       c. ??Maša požertvovala [**po** vešč'i] (radi každoj podrugi)
       Masha sacrified [**po** thing]_{DAT} [for the sake of every girlfriend]
       'Masha sacrificed one thing for the sake of each girlfrien'

(84)   a. Maša prostila [kakoe-to predatelstvo] (každoj podruge)   (amb)
       Masha forgave [some betrayal]_{ACC} [every girlfriend]_{DAT}
       'Masha forgave some betrayal to every girlfriend'
       b. Maša prostila (kakoj-to podruge) [každoe predatelstvo]   (frozen)
       Masha forgave [some girlfriend]_{DAT} [every betrayal]_{ACC}
       'Masha forgave some girlfriend every betrayal'

c. √ Maša prostila [**po** predatelstvu] [každoi podruge]
Masha forgave [**po** betrayal]$_{DAT}$ [every girlfriend]
'Masha forgave one betrayal to each girlfriend'

(85)　a. Vanja prines [kakuju-to novost'] (každoj sem'e)　　　　(amb)
Vania brought [some news]$_{ACC}$ [every family]$_{DAT}$
'Vania brought some piece of news to every family'
b. Vanja prines (kakoj-to sem'e) [každuju novost']　　　　(frozen)
Vania brought [some family]$_{DAT}$ [every news]$_{ACC}$
'Vania brought some family every piece of news'
c. √Vanja prines [**po** novosti]$_{DAT}$ [každoj sem'e]$_{DAT}$
　Vania brough [**po** news] [every family]
'Vania brough one piece of news to each family'

Note that the distributive *po* requires that its complement be realized with the Dative case marking. As the examples above show, the objects of Group 1 verbs represented in this section can all take distributive *po*; only one example, (83c), is degraded[182].

Group 2:

The verbs in Group 2 stand in stark contrast to Group 1 (and Group 3) verbs in that their objects absolutely cannot take disributive *po* phrases. In this respect as well they behave more like unergative predicates/non-objects.

(86)　a. Maša obozvala (kakim-to prozviščem) [každogo mal'čika]　(amb)
Masha called [some nickname]$_{INSTR}$ [every boy]$_{ACC}$
'Masha called every boy by some nickname'
b. Maša obozvala [kakogo-to mal'čika] (každym prozviščem)　(frozen)
Masha called [some boy]$_{ACC}$ [every nickname]$_{INSTR}$
'Masha called some boy by every nickname'
c. *Maša obozvala [po mal'čiku] [každym prozviščem]
Masha called [po boy]$_{DAT}$ [every nickname]$_{INSTR}$
'Masha called each boy by a nickname'

(87)　a. Maša očistila (ot kakogo-to parazita) [každyj dom]　　　(amb)
Masha cleared [$_{PP}$ from some pest]$_{ACC}$ [every house]$_{ACC}$
'Masha cleared every house of some pest'
b. Maša očistila [kakoj-to dom] (ot každogo parazita)　　　(frozen)
Masha cleared [some house]$_{ACC}$ [$_{PP}$ from every pest]$_{ACC}$

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[182] This is exactly the example the status of which is not entirely clear to me as the judgments are not as clear as they are with most other examples.

'Masha cleared some house of every pest'
c. */??Maša očistila [po domu] [ot každogo parazita]
Masha cleared [po house]**DAT** [from every pest]**ACC**
'Masha cleared one house (each) from every pest'

(88)   a. Maša obidela (kakim-to priznaniem) [každogo druga]   (amb)
Masha insulted [some confession]**INSTR** [every friend]**ACC**
'Masha insulted every friend with some confession'
b. Maša obidela [kakogo-to druga] (každym priznaniem)   (frozen)
Masha insulted [some friend]**ACC** [every confession]**INSTR**
'Masha insulted some friend with every confession'
c. *Maša obidela [po drugu] [každym priznaniem]
Masha insulted [po friend]**DAT** [every confession]**INSTR**
'Masha insulted one friend (each) with every confession'

(89)   a. Maša ugostila (kakim-to pečen'em) [každogo rebenka]   (amb)
Masha treated [some cookie]**INSTR** [every child]**ACC**
'Masha treated every child to some cookie'
b. Maša ugostila [kakogo-to rebenka] (každym pečen'em)   (frozen)
Masha treated [some child]**ACC** [every cookie]**INSTR**
'Masha treated some child to every cookie'
c. *Maša ugostila [po rebenku] [každym pečen'em]
Masha treated [po child]**DAT** [every cookie]**INSTR**
'Masha treated one child (each) to every cookie'

(90)   a. Maša pobryzgala ?/*(kakimi-to duxami) [každuju klientku]   (amb)
Masha sprayed [some perfume]**INSTR** [every client]**ACC**
'Masha sprayed some perfume over every client'
b. Maša pobryzgala [kakuju-to klientku] ?/*(každymi duxami)   (frozen)
Masha sprayed [some client]**ACC** [every perfume]**INSTR**
'Masha sprayed some client with every perfume'
c. *Maša pobryzgala [po klientke] [každymi duxami]
Masha sprayed [po client] [every perfume]
'Masha sprayed one client (each) with every perfume'

Group 3:

Finally, Group 3 predicates again behave like Group 1 in allowing their direct object to appear as complements of distributive *po*:

(91) a. Maša napisala [kakoj-to slogan] (na každoj stene) (amb)
Masha wrote [some slogan]$_{ACC}$ [on every wall]$_{DAT}$
'Masha wrote some slogan on every wall'
b. Maša napisala (na kakoj-to stene) [každyj slogan] (amb)
Masha wrote [on some wall]$_{DAT}$ [every slogan]
'Masha wrote every slogan on some wall'
c. √ Maša napisala [po sloganu] [na každoj stene]$_{ACC}$
Masha wrote [po slogan]$_{DAT}$ [on every wall]$_{DAT}$
'Masha wrote one slogan on every wall'

(92) a. Vanja zagruzil [kakoj-to kirpič] *(v každyj vagon) (amb)
Vania loaded [some brick]$_{ACC}$ [into every carriage]$_{PREP}$
'Vania loaded some brick into every carriage'
b. Vanja zagruzil *(v kakoj-to vagon) [každyj kirpič] (amb)
Vania loaded [into some carriage]$_{PREP}$ [every brick]$_{ACC}$
'Vania loaded every brick onto some carriage'
c. √ Vanja zagruzil [po kirpiču]$_{DAT}$ [v každyj vagon]$_{PREP}$
Vania loaded [po brick] [into every carriage]
'Vania loaded one brick into every carriage'

(93) a. Vanja zalil [kakuju-to židkost'] *(v každyj bak) (amb)
Vania poured [some liquid]$_{ACC}$ [into every tank]$_{PREP}$
'Vania poured some liquid into every tank'
b. Vanja zalil *(v kakoj-to bak) [každuju židkost'] (amb)
Vania poured [into some tank]$_{PREP}$ [every liquid]$_{ACC}$
'Vania poured every liquid into some tank'
c. √ Vanja zalil [po židkosti] [v každyj bak]
Vania poured [po liquid]$_{DAT}$ [into every tank]$_{PREP}$
'Vania poured some liquid into each tank'

(94) a. Maša razmestila [kakoe-to soobšenie] *(v každoj gazete) (amb)
Masha posted [some message]$_{ACC}$ [in every newspaper]$_{PREP}$
'Masha posted some message in every newspaper'
b. Maša razmestila *(v kakoj-to gazete) [každoe soobšenie] (amb)
Masha posted [in some newspaper]$_{PREP}$ [every message]$_{ACC}$
'Masha posted every message in some newspaper'
c. √ Maša razmestila [po soobšeniju] [v každoj gazete]
Masha posted [po message]$_{DAT}$ [in every newspaper]$_{PREP}$
'Masha posted a (different) message in every newspaper'

(95) a. Maša zagruzila [kakuju-to programmu] (na každyi komp'juter) (amb)
Masha uploaded [some program]$_{ACC}$ [on every computer]$_{PREP}$

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'Masha uploaded some program to every computer'

b. Maša zagruzila (na kakoj-to komp'juter) [každuju programmu]   (amb)

Masha uploaded [on some computer]**PREP** [every program]**ACC**

'Masha uploaded every program to some computer'

c. √ Maša zagruzila [po programme] [na každyj komp'juter]

Masha uploaded [po program]**DAT** [on every computer]**PREP**

'Masha uploaded a (different) program to every computer'

(96)   a. Maša obrisovala [kakuju-to situaciju] (každomu partneru)   (amb)

Masha sketched [some situation]**ACC** [every partner]**DAT**

'Masha sketched some situation to every partner'

b. Maša obrisovala (kakomu-to partneru) [každuju situaciju]   (amb)

Masha sketched [some partner]**DAT** [every situation]**ACC**

'Masha sketched for some partner every situation'

c. √ Maša obrisovala [po situacii] [každomu partneru]

Masha sketched [po situation]**DAT** [every partner]**DAT**

'Masha sketched a (different) situation to every partner'

7.6.3 Genitive of Negation

Pesetsky (1982) was also the first to argue that Genitive of Negation can be used as a reliable test for unaccusativity in Russian. Applying this test to our data we again see a clear dichotomy between Group 1/Group 3 predicates on the one hand and Group 2 predicates on the other.

Group 1:

As can be seen from the examples below, most Group 1 predicates allow Genitive of Negation. A few examples where the direct object in this construction is ungrammatical in Genitive case when used in singular form significantly improve when the object is used in the plural (ex. (99), (101)). As before, the first two sentences in each triplet represent the two orders of internal arguments as they correlate with scope. The third sentence is the Genitive of Negation test applied to the direct object of these predicates[183].

(97)   a. Maša potrebovala [kakie-to dokumenty] (s každogo posetitelja)   (amb)

Masha demanded [some documents]**ACC** [from every visitor]**GEN**

'Masha demanded some documents from every visitor'

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[183] In all the cases below (for all three verb Groups) the verb is in passive form unless marked otherwise (in some cases the past plural form is used - a form which is in principle possible for all examples, and does not affect whether the GEN.NEG is grammatical).

b. Maša potrebovala (s kakogo-to posetitelja) [každyj document]   (frozen)
Masha demanded [from some visitor]GEN [every document]ACC
'Masha demanded every document from some visitor'
c. √ Dokumenta ne potrebovalos'
DocumentGEN not needed
'No document was needed'

(98)   a. Maša napisala [kakoj-to kommentarij] (k každoj fotografii)   (amb)
Masha wrote [some comment]ACC [to every photograph]GEN
'Masha wrote some comment to every photograph'
b. Maša napisala (k kakoj-to fotografii) [každyj kommentarij]   (frozen)
Masha wrote [to some photograph]GEN [every comment]ACC
'Masha wrote every comment to some photograph'
c. √ Kommentarija ne bylo napisano
CommentGEN not was written
'No comment was written'

(99)   a. Maša požertvovala [kakoj-to vešč'ju] (radi každoj podrugi)   (amb)
Masha sacrificed [some thing]INSTR [for the sake of every girlfriend]GEN
'Masha sacrificed some thing for the sake of every girlfriend'
b. Maša požertvovala (radi kakoj-to podrugi) [každoj vešč'ju]   (frozen)
Masha sacrificed [for the sake of [some girlfriend]GEN] [every thing]INSTR
'Masha sacrificed, for the sake of some girlfriend, every thing'
c. ?Vešči ne bylo požertvovano / √ Veščej ne bylo požertvovano
[Thing/object]GEN not was sacrificed/Things/objectsGEN.PLR not was sacrificed
'No thing was sacrificed'

(100)   a. Maša prostila [kakoje-to predatel'stvo] (každoj podruge)   (amb)
Masha forgave [some betrayal]ACC [every girlfriend]DAT
'Masha forgave some betrayal to every girlfriend'
b. Maša prostila (kakoj-to podruge) [každoe predatel'stvo]   (frozen)
Masha forgave [some girlfriend]DAT [every betrayal]ACC
'Masha forgave some girlfriend every betrayal'
c. √ Predatelstva ne prostili/ ne bylo proščeno
BetrayalGEN not forgavePST.PLR/not was forgiven
'Betrayal was not forgiven'

(101)   a. Vanja prines [kakuju-to novost'] (každoj sem'e)   (amb)
Vania brought [some news]ACC [every family]DAT
'Vania brought some piece of news to every family'
b. Vanja prines (kakoj-to sem'e) [každuju novost']   (frozen)
Vania brought [some family]DAT [every news]ACC

'Vania brought some family every piece of news'

c. * Novosti ne bylo prineseno/ ?Novostej ne bylo prineseno

News**GEN** not was brought/News**GEN.PLR** not was brought

'No news was brought'

Group 2:

Unlike Group 1 predicates, predicates belonging to Group 2 uniformly disallow the Genitive of Negation construction, which is again suggestive of unergative/non-oblect-like properties of these verbs.

(102) a. Maša obozvala (kakim-to prozviščem) [každogo mal'čika]   (amb)

Masha called [some nickname]**INSTR** [every boy]**ACC**

'Masha called every boy by some nickname'

b. Maša obozvala [kakogo-to mal'čika] (každym prozviščem)   (frozen)

Masha called [some boy]**ACC** [every nickname]**INSTR**

'Masha called some boy by every nickname'

c. *Mal'čika ne bylo obozvano

Boy**GEN** not was called (=called by a nickname)

'No boy was called by a nickname'

(103) a. Maša očistila (ot kakogo-to parazita) [každyj dom]   (amb)

Masha cleared [from some pest]**GEN** [every house]**ACC**

'Masha cleared every house of some pest'

b. Maša očistila [kakoj-to dom] (ot každogo parazita)   (frozen)

Masha cleared [some house]**ACC** [from every pest]**GEN**

'Masha cleared some house of every pest'

c. *Doma ne bylo očiščeno/ *Doma ne očistili

House**GEN** not was cleared/House**GEN** not cleared**PST.PLR**

'No house was cleared'

(104) a. Maša obidela (kakim-to priznaniem) [každogo druga]   (amb)

Masha insulted [some confession]**INSTR** [every friend]**ACC**

'Masha insulted every friend with some confession'

b. Maša obidela [kakogo-to druga] (každym priznaniem)   (frozen)

Masha insulted [some friend]**ACC** [every confession]**INSTR**

'Masha insulted some friend with every confession'

c. */??Druga ne bylo obiženo

Friend**GEN** not was insulted

'No friend was insulted'

(105) a. Maša ugostila (kakim-to pečen'em) [každogo rebenka]   (amb)
Masha treated [some cookie]$_{INSTR}$ [every child]$_{ACC}$
'Masha treated every child to some cookie'
b. Maša ugostila [kakogo-to rebenka] (každym pečen'em)   (frozen)
Masha treated [some child]$_{ACC}$ [every cookie]$_{INSTR}$
'Masha treated some child to every cookie'
c. *Rebenka ne bylo ugoščeno
Child$_{GEN}$ not was treated (=treated to sweets)
'No child was treated (to something tasty)'

(106) a. Maša pobryzgala ?/*(kakimi-to duxami) [každuju klientku]   (amb)
Masha sprayed [some perfume]$_{INSTR}$ [every client]$_{ACC}$
'Masha sprayed some perfume over every client'
b. Maša pobryzgala [kakuju-to klientku] ?/*(každymi duxami)   (frozen)
Masha sprayed [some client]$_{ACC}$ [every perfume]$_{INSTR}$
'Masha sprayed some client with every perfume'
c. *Klientki ne bylo pobryzgano / *Klientki ne pobryzgali
Client$_{GEN}$ not was sprayed/Client$_{GEN}$ not sprayed$_{PST.PLR}$
'No client was sprayed'

Group 3:

The Group 3 predicates again behave more like Group 1 verbs with respect to the Genitive of Negation test in that many verbs in this group allow GEN.NEG. However, the grammaticality judgments on many predicates in this group are somewhat questionable with respect to this test, although the resulting constructions do not seem to be as categorically ungrammatical as those with Group 2 predicates.

(107) a. Maša napisala [kakoj-to slogan] (na každoj stene)   (amb)
Masha wrote [some slogan]$_{ACC}$ [on every wall]$_{DAT}$
'Masha wrote some slogan on every wall'
b. Maša napisala (na kakoj-to stene) [každyj slogan]   (amb)
Masha wrote [on some wall]$_{DAT}$ [every slogan]$_{ACC}$
'Masha wrote every slogan on some wall'
c. √ Slogana ne bylo napisano
Slogan$_{GEN}$ not was written
'No slogan was written'

(108) a. Vanja zagruzil [kakoj-to kirpič] *(v každyj vagon)   (amb)
Vania loaded [some brick]$_{ACC}$ [into every carriage]$_{PREP}$
'Vania loaded some brick into every carriage'
b. Vanja zagruzil *(v kakoj-to vagon) [každyj kirpič]   (amb)

Vania loaded [into some carriage]_{PREP} [every brick]_{ACC}
'Vania loaded every brick onto some carriage'
c. ?Kirpiča ne bylo zagruženo/ ?Kirpiča ne zagruzili
Brick$_{GEN}$ not was loaded/Brick$_{GEN}$ not loaded$_{PST.PLR}$
'No brick was loaded'

(109)   a. Vanja zalil [kakuju-to židkost'] *(v každyj bak)   (amb)
Vania poured [some liquid]$_{ACC}$ [into every tank]$_{PREP}$
'Vania poured some liquid into every tank'
b. Vanja zalil *(v kakoj-to bak) [každuju židkost']   (amb)
Vania poured [into some tank]$_{ACC}$ [every liquid]$_{PREP}$
'Vania poured every liquid into some tank'
c. ? židkosti$_{GEN}$ ne bylo zalito/ ?židkosti$_{GEN}$ ne zalili
Liquid$_{GEN}$ not was poured/Liquid$_{GEN}$ not poured$_{PST.PLR}$
'No liquid was poured in'

(110)   a. Maša razmestila [kakoe-to soobšenie] *(v každoj gazete)   (amb)
Masha posted [some message]$_{ACC}$ [in every newspaper]$_{PREP}$
'Masha posted some message in every newspaper'
b. Maša razmestila *(v kakoj-to gazete) [každoe soobšenie]   (amb)
Masha posted [in some newspaper]$_{PREP}$ [every message]$_{ACC}$
'Masha posted every message in some newspaper'
c. √ Soobšenija$_{GEN}$ ne bylo razmeščeno / √ Soobšenija$_{GEN}$ ne razmestili$_{PST.PLR}$
Message$_{GEN}$ not was posted/Message$_{GEN}$ not posted$_{PST.PLR}$
'No message was posted'

(111)   a. Maša zagruzila [kakuju-to programmu] (na každyj komp'juter)   (amb)
Masha uploaded [some program]$_{ACC}$ [on every computer]$_{PREP}$
'Masha uploaded some program to every computer'
b. Maša zagruzila (na kakoj-to komp'juter) [každuju programmu]   (amb)
Masha uploaded [on some computer]$_{PREP}$ [every program]$_{ACC}$
'Masha uploaded every program to some computer'
c. ?Programmy ne bylo zagruženo/ *Programmy ne zagruzili
Program$_{GEN}$ not was loaded/Program$_{GEN}$ not loaded$_{PST.PLR}$
'No program was uploaded'

(112)   a. Maša obrisovala [kakuju-to situaciju] (každomu partneru)   (amb)
Masha sketched [some situation]$_{ACC}$ [to every partner]$_{DAT}$
'Masha sketched some situation to every partner'
b. Maša obrisovala (kakomu-to partneru) [každuju situaciju]   (amb)
Masha sketched [some partner]$_{DAT}$ [every situation]$_{ACC}$
'Masha sketched for some partner every situation'

c. ? Situacii ne bylo obrisovano / ?? Situacii ne obrisovali
Situation_{GEN} not was sketched/Situation_{GEN} not sketched_{PST.PLR}
'No situation was skeched'

What the above tests suggest is that there is a true difference between the verbs of Group 1 and Group 2 at least (with Group 3 verbs bearing a lot of similarities to Group 1 verbs). Thus, while the direct objects of Group 1 verbs behave like the true objects of the verb, the Accuative objects of Group 2 verbs differ consistently in this respect suggesting a different underlying position within the VP.

7.6.4 Semantics of the Three Verb Groups

Having devoted considerable attention to syntactic and lexico-syntactic properties of the three Groups of predicates under discussion, the interesting question to ask is whether it is possible to single out any semantic properties characterizing the three Groups. So far I was not able to find any such unifying semantic feature for Group 1 predicates (where frozen scope obtains with Oblique > Accusative order of internal arguments), which appear to be a non-homogeneous group in this respect. The only observation I was able to make is that Group 1 predicates include a number of verbs that form set (or, more rarely, idiomatic) expressions. This feature, too, is what unifies Group 1 predicates with Group 3, which also contains a number of set expressions, as opposed to Group 2 predicates, which contain none. Consider some examples of Group 1 predicates, most of which have not appeared in the above discussion in the examples but which share all the properties of other Group 1 predicates we discussed in detail:

Group 1 predicates:

(113)   a. najti DAT/ACC – to find (smb smth)
        b. potrebovat' s/ACC – to demand (from smb smth)
        c. napisat' k/ACC – to write (to smb smth)
        d. otobrat' u/ACC – to take away (from smb smth)
        e. podelit'sja c/INSTR – to share (with smb smth)
        f. prostit' DAT/ACC – to forgive (smb smth)
        g. sdelat' DAT/ACC – to do (smb smth)
        h. naklikat' bedu/na – to bring disaster (upon smb)
        i. postavit' uslovije/DAT – to put a condition (to smb)
        j. zaključit' pari/s – to make a bet (with smb)
        k. beredit' ranu/DAT – to stir up a would (to smb)
        l. oderžat' pobedu/nad – to gain victory (over smb)

I believe it is possible to single out such unifying semantic features for both Group 2 and, to a lesser degree, Group 3 predicates. For Group 2 predicates (where the frozen scope obtains with the Accusative >> Oblique order of internal arguments) the unifying property seems to me to be the interpretation of *affectedness* on the Accusative object. Specifically, with all the verbs in this group, the direct object appears to be interpreted as affected in some way, to a greater or lesser degree, by the action denoted by the verb that is performed by the Agent. Some of the predicates in this group not discussed in the previous sections that demonstrate this point are:

Group 2 predicates:

(114) a. oskorbit' ACC/INSTR – to insult (someone with smth)
     b. podvergnut' ACC/INSTR – to subject (someone to smth)
     c. izobličit' ACC/v – to expose (smb in smth)
     d. zašč'itit' ACC/ot – to protect (sb from smth/smb)
     e. ozadač'it' ACC/INSTR – to perplex (smb with smth)
     f. očarovat' ACC/INSTR – to bewitch, to charm (smb with smth)
     g. obvinit' ACC/v – to blame (smb in smth)
     h. naučit' ACC/INSTR – to teach (smb smth)
     i. priznat'sja DAT/v – to admit (to smb in smth)
     j. ubedit' ACC/v – to persuade (smb in smth)
     k. predupredit' ACC/o – to warn (smb about smth)
     l. zapolnit' ACC/INSTRT – to fill (smth with smth)

Finally, regarding Group 3, there are two points to note. First of all, as was just mentioned above, along with Group 1, Group 3 includes a number of predicates that form set or idiomatic expressions with one of their objects (most often, the direct object). Secondly, a semantic property that is shared but many (although not all) verbs in this group appears to be a LOCATION/DIRECTION component that is mostly expressed through a preposition that the verbs in this group take. Consider the examples:

Group 3 predicates:

(115) a. zapisat' ACC/v or on – to write down (smth in/somewhere/on smth)
     b. vyrastit' ACC/v – to grow (smth in/somewhere)
     c. pročitat' ACC/DAT – to read (smth to smb)
     d. obrisovat' ACC/DAT – to sketch (smth to smb)
     e. otpravit' ACC/na – to send (smth to)
     f. izvleč' ACC/iz – to extract (smth from somewhere)
     g. uslyšat' o/ot – to hear (about smth from smb)

h. vytašč'it' ACC/iz – to extract (smth from somewhere)

i. razmestit' ACC/v – to place (smth in (some location))

j. pokazat' DAT/ACC – to show (smb smth)

k. posovetovat' DAT/ACC – to advise (smb smth)

l. narušit' zakon/INSTR – to break the law (with smth)

m. brosit' kamen'/v – to throw a stone (into)

n. brosit' v bede/ACC – to abandon (smb) in trouble

o. vstavit' slovo/v - to insert a word (in)

p. vstavit' palku/v koleso – to put a stick into a weel (to create a hindrance, create problems for someone)

q. vymestit' obidu/na – to vent resentment (on smb)

r. zagnat' v ugol/ACC – to corner (smb) into a corner

s. deržat' na rasstojanii/ACC – to keep (smb) at a distance

t. prisojedinit' ACC/k – to annex (smth to smth)

7.6.5 Additional facts

An interesting additional fact is that a few verbs in Group1 and many verbs in Group 3 can take the **pere-** (re-) prefix. In contrast, only 2 verbs of Group 2 can[184]:

(116) The ability to take the prefix *pere-*

Group 1: perepisat' (to rewrite), **pere**zakliuchit' pari (to re-make the bet), **pere**pročitat' (to reread), **pere**delat' (to redo)

Group 2: pereučit' (to reteach), **pere**ubedit' (to convince again)

Group 3: perečitat' (to reread), **pere**verbovat' (to re-draft), **pere**zagruzit' (to reload, to download again), **pere**taščit' (to drag over), **pere**bit' (to beat all of, to kill all), **pere**deržat' (to overexpose, to keep somewhere for too long), **pere**prisoedenit' (to re-annex, to reattach), **pere**poobeščat' (to promise again), **pere**pravit' (to forward, to take across, to carry over)

117) **Table summarizing the properties of the three classes of predicates**

	Group 1 (Expected)	**Group 2 (Unexpected)**	**Group 3 (Both orders ambiguous)**
Ambiguous	ACC >> Oblique	Oblique >> ACC	ACC >> Obl, Obl >> ACC

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[184] *Pere-* most commonly means to perform the action denoted by the verb again. In almost all cases, the prefix already present on the verb needs to be removed before attaching the prefix *pere-* for the result to be grammatical. In some cases this will change the meaning of the verb.

Frozen	Oblique >> ACC	ACC >> Oblique	--
Contrastive focus on QP2	Narrow scope with Oblique >> ACC order	Narrow scope with ACC >> Oblique order	Wide scope with both orders
ACD	Possible with either order	Possible with either order	Possible with either order
ACD with intensional predicates	*De re* reading available with frozen scope order	*De re* reading available with frozen scope order	*De re* reading available with either scope order
Passivization	Frozen scope with Oblique >> ACC	Frozen scope with ACC >> Oblique	Ambiguous scope with either order
Middle Formation	ACC object interpreted as THEME	ACC object ambiguous between THEME and AGENT or EXPERIENCER interpretation	ACC object interpreted as THEME
Distributive *po* phrases	√	*	√
GEN.NEG	√	*	√
Semantics	? many set expressions	AFFECTEDNESS interpretation of the direct object	LOCATION/DIRECTION component expressed mostly with a preposition, many set expressions

7.7 Summarizing the Results: Refining the Analysis

The wealth of data presented in this chapter allows us to make a number of observations. Probably the most important finding is the discovery that Russian ditranstive predicates can be subdivided into three distinct Groups depending on their scope behavior. There are

two groups where frozen scope obtains depending on whether the Oblique argument precedes or follows the Direct object, and there is a group of predicates where either order yields ambiguity. Importantly, what we do *not* find is a group of verbs where either order of internal arguments results in frozen scope. The question is, why not? I believe that the fact that we do not find this fourth group provides one of the strongest reasons to believe that frozen scope is a derived phenomenon, where freezing obtains when the base-generated order is flipped so that the lower QP object crosses the higher QP object[185]. Group 3, where both orders are ambiguous, under the SF Generalization could be argued to consist of predicates where either order of internal arguments can be base generated, that is, no order is derived from the other. However, I ended up analyzing as Group 3 predicates as also being ones where one of the orders is derived from the other yet the necessary c-command (and the Relation $\Re$) are not established. Thus the derived nature of frozen scope seems to provide a simple explanation for why this fourth group of verbs is not found[186].

A related observation concerns scope in sentences with Group 3 predicates that presents a bit of a puzzle. As was noted several times throughout the Appendix, in many cases the verbs that were eventually classified as Group 3 predicates based on the cumulative results of all the tests discussed in the Appendix (a conclusion further supported by the lexico-syntactic and semantic properties of these verbs), initially seemed scope frozen on one of the orders (Oblique >> Accusative). That is, on the basis of scope judgments alone, some of these verbs initially appeared to be Group 1 predicates, with further tests "freeing up" scope so as to reveal the availability of the inverse scope on the order that initially seemed scope frozen. As was just noted in footnote 22, many of predicates in Group 3 are the ones where both objects represent obligatory arguments of the verb. The two observations seem to me to be related somehow. These puzzling facts notwistanding, a derivational account (without the establishment of c-command) provides a simple and elegant explanation of why scope is ambiguous with either order with Group 3 predicates. What is not entirely clear to me at this point, if this explanation is on the

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[185] The fact (discussed at length in the main text) that Russian exhibits a number of other, unrelated contexts where scope is similarly frozen, namely the scope freezing found with Local and Long Distance Scrambling of QPs is another indirect, yet quite appealing reason to believe that frozen scope in ditransitives is also caused by overt movement of a QP across another QP.

[186] Another interesting observation that I believe can probably be explained under the derivational approach to frozen scope is the fact that in virtually all cases with Group 1 predicates (expected pattern) the non-obligatory/droppable internal argument is always the higher one of the two arguments in frozen scope cases while with Group 2 (unexpected pattern) it's the opposite: the non-obligatory argument always comes second. In those rare cases where this pattern is not followed both arguments are obligatory, so it is not really an exception to the observed generalization. With Group 3 predicates (both orders ambiguous/free pattern) many cases are the ones where both internal arguments are obligatory yet just as many seem to be those where one of the phrases is clearly an adjunct.

right track, is why on one of the orders inverse scope would in some cases be difficult (or at least, not as immediately available).

7.8 Other Contexts of Scope Freezing: Reflexive Monotransitive Verbs

As it turns out, and as was briefly discussed in Chapter 3, there are in fact two other syntactic contexts in Russian where scope is surface frozen, what I call reflexive monotransitive construction and the bona-fide spray-load alternation. Let us consider them both in more detail.

7.8.1 Reflexive Monotransitive Verbs

The first one, to be discussed in this section, is found with what I call *reflexive monotransitives* with a quantificational internal argument and a QP adjunct. The overall situation here is very similar to that found with Russian ditransitives, which this construction obviously derives from. Consider some examples:

(118) a. Maša zarazilas'   [kakoj-to bolezn'ju] (ot každogo pacienta)   (amb)
Masha infected**REFL**   [some illness]**INSR** [from every patient]**ACC**
'Masha got infected with some illness by every patient'
b. Maša zarazilas'   (ot kakogo-to pacienta) [každoj bolezn'ju]   (frozen) G1
Masha infected**REFL**   [from some patient]**ACC** [every illness]**INSR**
'Masha got infected with every illness by some patient'

(119) a. Maša obidelas' (iz-za kakoj-to šutki) [na každogo druga]   (amb)
Masha insulted**REFL** [because of some joke]**GEN** [on every friend]**ACC**
'Masha got insulted by every friend because of some joke'
(=Masha got insulted by every friend's joke)
b. Maša obidelas'   [na kakogo-to druga] (iz-za každoj šutki)   (frozen) G2
Masha insulted**REFL**   [on some friend]**ACC** [because of every joke]**GEN**
'Masha got insulted by some friend's every joke'

(120) a. Maša izmazalas' [kakoj-to kraskoj] (v každoj komnate)   (amb)
Masha dirtied**REFL** [some paint]**INSTR** [in every room]**DAT**
'Masha got dirtied with some paint in every room'
b. Maša izmazalas' (v kakoj-to komnate) [každoj kraskoj]   (frozen) G1
Masha dirtied**REFL** [in some room]**DAT** [every paint]**INSTR**
'Masha got dirtied with every paint in some room'

(121) a. Maša otravilas'   [kakim-to bljudom] (na každom prazdnike) (amb)

Masha poisoned_REFL [some dish]_INSTR [on every celebration]_PREP
'Masha got poisoned with some dish at every celebration'

b. Maša otravilas'   (na kakom-to prazdnike) [každym bljudom] (frozen) G1
Masha poisoned_REFL [on some celebration]_PREP [every dish]_INSTR
'Masha got poisoned at some celebration with every dish'

(122) a. Maša rešilas' [na kakoj-to postupok] (posle každogo proišestvija) (amb)
Masha decided [on some action]_ACC [after every event]_GEN
'Masha decided on some action after every event'
b. Maša rešilas' (posle kakogo-to proišestvija) [na každyj postupok] (frozen) G1
Masha decided [after some event] [on every action]
'Masha decided after some event on every action'

(123) a. Maša pokazalas' (v kakom-to plat'e) [každomu drugu]   (amb)
Masha showed_REFL [in some dress]_PREP [every friend]_DAT
'Masha showed herself in some dress to every friend'
b. Maša pokazalas' [kakomu-to drugu] (v každom plat'e)   (frozen) G2
Masha showed_REFL [some friend]_DAT [in every dress]_PREP
'Masha showed herself to some friend in every dress'

(124) a. Maša poobščalas' (na kakuju-to temu) [s každym professorom]   (amb)
Masha conversed [on some topic]_PREP [with every professor]_INSTR
'Masha conversed on some topic with every professor'
b. Maša poobščalas' [s kakim-to professorom] (na každuju temu)   (frozen) G2
Masha conversed [with some professor]_INSTR [on every topic]_PREP
'Masha conversed with some professor on every topic'

There are several things to note about these examples. First of all, with respect to our classification of predicates developed in Chapter 4, examples (118, 120, 121, 122) correspond to Group 1 predicates, where frozen scope results when the verb's argument is crossed by the oblique, or in this case, non-argument QP. Thus, in (120), (121) and (122), for instance, frozen scope is clearly the result of raising a QP adjunct over the verb's only internal argument. This also strongly implicates the derived nature of frozen scope, where crossing the structurally higher QP by the lower QP yields scope freezing. Secondly, Examples (119), (123) and (124) seem to correspond to my Group 2 predicates, since here scope is free when the verb's argument follows the adjunct, and frozen when the order is switched. Here as well it seems obvious that it is movement of one QP across another that results in scope freezing, thus further supporting the SF Generalization. Of course, given that with respect to scope behavior the examples above correspond to the previously

identified Group 1 and Group 2 predicates, it is interesting whether we can find examples that would correspond to Group 3, or the Free Pattern Group. Such examples are indeed also available in Russian:

(125) a. Maša razvlekalas' (s kakoj-to podrugoj) (v každom klube)   (amb)
            Masha entertained**REFL** [with some friend]**INSTR** [in every club]**PREP**
            'Masha entertained with some friend in every club'

        b. Maša razvlekalas' (v kakom-to klube) (s každoj podrugoj)   (amb)
            Masha entertained**REFL** [in some club]**PREP** [with every friend]**INSTR**
            'Masha entertained in some club with every friend'

(126) a. Maša podgotovilas' [k kakomu-to dokladu] (na každoj konferencii)   (amb)
            Masha prepared**REFL** [to some report]**DAT** [on every conference]**PREP**
            'Masha prepared herself for some report at every conference'

        b. Maša podgotovilas' (na kakoj-to konferencii) [k každomu dokladu]   (amb)
            Masha prepared**REFL** [on some conference]**PREP** [to every report]**DAT**
            'Masha prepared herself for every report at some conference'

(127) a. Maša ustroilas' [na kakuju-to rabotu] (blagodarja každoj rekommendacii) (amb)
            Masha settled**REFL** [on some job]**ACC** [thanks.to every recommendation]**DAT**
            'Masha got fixed up in a job due to every recommendation'

        b. Maša ustroilas' (blagodarja kakoj-to rekommendacii) [na každuju rabotu] (amb)
            Masha settled**REFL** [thanks.to some recommendation]**DAT** [on every job]**ACC**
            'Masha got fixed up in every job due to some recommendation'

As the above examples (125)-(127) show, here we have a comparable situation to that found with Group 3 ditransitive predicates, with most of these verbs taking one internal argument and one adjunct, with both orders being scopally ambiguous.

        An important point to note with respect to scope in reflexive monotransitives is that just as with ditransitives, what we do *not* find is the fourth group where both orders of QPs would yield frozen scope. Again, in my opinion, this strongly suggests that frozen scope is linked to a derived word order and results when the lower QP crosses the structurally higher one, obtaining c-command over it.

        It should also be noted that many of these reflexive monotransitives have ditransitive counterparts that seem to correspond to them quite closely in terms of scope behavior. Consider these sentences, formed on the basis of the above examples:

(128) a. Maša zarazila   [kakoj-to bolezn'ju]   [každogo pacienta]   (amb)
            Masha infected   [some illness]**INSTR**   [every patient]**ACC**

'Masha infected every patient with some illness'
b. Maša zarazila   [kakogo-to pacienta] [každoj bolezn'ju]   (frozen) G2
Masha infected   [some patient]$_{ACC}$ [every illness]$_{INSTR}$
'Masha infected some patient with every illness'

(129)a. Maša obidela   [kakoj-to šutkoj]   [každogo druga]   (amb)
Masha insulted   [some joke]$_{INSTR}$ [every friend]$_{ACC}$
'Masha insulted every friend with some joke'
b. Maša obidela   [kakogo-to druga] [každoj šutkoj]   (frozen) G2
Masha insulted   [some friend]$_{ACC}$ [every joke]$_{INSTR}$
'Masha insulted some friend with every joke'

(130)a. Maša izmazala   [kakoj-to kraskoj] [každuju komnatu]   (amb)
Masha dirtied   [some paint]$_{INSTR}$ [every room]$_{ACC}$
'Masha dirtied every room with some paint'
b. Maša izmazala   [kakuju-to komnatu] [každoj kraskoj]   (frozen) G2
Masha dirtied   [some room]$_{ACC}$ [every paint]$_{INSTR}$
'Masha dirtied some room with every paint'

(131)a. Maša pokaza   [kakoe-to plat'e]   [každomu drugu]   (amb)
Masha showed   [some dress]$_{ACC}$ [every friend]$_{DAT}$
'Masha showed some dress to every friend'
b. Maša pokazala   [kakomu-to drugu]   [každoe plat'e]   (frozen) G1
Masha showed   [some friend]$_{DAT}$ [every dress]$_{ACC}$
'Masha showed some friend every dress'

(132) a. Maša razvlekala   [kakuju-to podrugu]   [v každom klube]   (amb)
Masha entertained   [some friend]$_{ACC}$ [in every club]$_{PREP}$
'Masha entertained some friend in every club'
b. Maša razvlekala   [v kakom-to klube]   [každuju podrugu]   (amb) G3
Masha entertained   [in some club]$_{PREP}$ [every friend]$_{ACC}$
'Masha entertained every friend in some club'

Several things are of interest. First of all, case is changed on at least one of the QPs in these examples, yet the overall scope pattern is preserved, making these fully counterpart to the respective reflexive monotransitives. The most interesting, and I believe, a very important observation regarding these examples is that while we indeed find the same three groups of verbs with these reflexive monotransitives and their corresponding ditransitive counterparts, the group that each separately taken verb belongs to is not always the same: thus, a Group 1 reflexive monoransitive very often has a corresponding

Group 2 ditransitive counterpart, suggesting there is a strong connection between the verb's phrase structure and thematic roles expressed through the hierarchical relations between its quantificational arguments or arguments and adjuncts, and the resulting scope freezing on one of the two possible word orders. This is easiest to see and appreciate when the verbs are presented in a table, as in (133) below[187]:

(133) **The Table of Verb Group Correspondence for Reflexive Monotransitives and Their Ditransitive Counterparts**

	Group 1 Predicates	**Group 2 Predicates**	**Group 3 Predicates**
Reflexive monotransitives	zarazilas' (got infected) izmazalas' (got dirtied) otravilas' (got poisoned) ugostilas' (treated herself to smth) razozlilas' (got angry) prostilas' (said good-bye) zaščitilas' (defended herself) zanjalas' (got busy with doing smth) napilas' (got drunk) izvinilas' (apologized) nakrasilas' (applied make-up to herself)	obidelas' (got insulted) pokazalas' (showed herself)	razvlekalas' (entertained herself) podgotovilas' (prepared herself) ustroilas' (arranged for herself) ispugalas' (got scared) naučilas' (taught herself, learned)
Ditransitives	pokazala (showed)	zarazila (infected)	razvlekala

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[187] I color-coded the verbs in the table for convenience so that morphologically related verbs would be of the same color irrespective of the group they appear in. Thus, for instance, the Group 1 reflexive monotransitives and their corresponding Group 2 ditransitives are given in the same color, so that their common origin can be immediately noticed.

		izmazala (dirtied)	(entertained)
		otravila (poisoned)	podgotovila
		ugostila (treated	(prepared)
		someone to smth)	ustroila (arranged
		razozlila (angered	for someone)
		someone)	ispugala (scared)
		prostila (forgave)	
		zaščitila (defended)	
		zanjala (got	
		somebody busy	
		doing smth)	
		napoila (got	
		somebody drunk)	
		izvinila (forgave)	
		nakrasila (made	
		smb up)	
		obidela (insulted)	
		naučila (taught)	

The most striking thing to note is that all reflexive monotransitives in this table that belong to Group 1 have corresponding ditransitive counterparts that actually belong to Group 2 (rather than Group 1, as might be expected). I believe this interesting fact can be traced directly to the verb semantics: while the Group 1 reflexive verbs all denote an action that the Agent does to herself so that the Agent is the one that's affected, in the corresponding Group 2 ditransitive verbs it's the direct object that is always interpreted as being the one affected by the action performed by the Agent. Thus, the previously identified *affectedness* property that the direct objects of all Group 2 ditransitives were argued to share is very clearly present in these cases as well. This point underscores yet again the relation that appears to exhist between the verb's argument structure as determined by its arguments' thematic roles and the scope behavior of the verb's quantificational objects, which is a direct reflex of their hierarchical argument structure.

7.8.2 Russian Spray-Load Alternation

Finanlly, the last context I have been able to verify as exhibiting the exact same pattern of scope behavior discussed in this Appendix and the preceding chapters is the Russian *spray-load* alternation. The alternation is not nearly as productive as it is in English, but still I have been able to identify a number of verbs that clearly belong to this group, all listed in the Appendix. Here we will review the well-known properties of the English *spray-load* alternation and we will see that although the alternation in Russian is not as productive, it is not different from the English in terms of its basic semantic and syntactic

properties. Given this, it is not surprising that the scope freezing that is found with the *with*-variant of the *spray-load* construction in English is found in Russian as well, on the order of arguments that clearly represents the Russian counterpart to the English *with*-variant alternant. Consider the following examples (from Kearns 2011: p.218-219).

(136)   a. Jones loaded [the hay] onto the truck
        !...and put the left-over hay in the barn.
         …and there was still room for the piano.

        b. Jones loaded [the truck] with the hay
        !...and there was still room for the piano.
        …and put the left-ver hay in the barn.

The examples above demonstrate the well-known property of the *spray-load* alternation, namely **_the holism effect_**, associated with the direct object in both alternants. The holism effect consists in the direct object being interpreted as completely (or holistically) involved in the event, being totally 'used up'. Thus, in (136a) the hay is understood as being fully loaded onto the truck, with no leftover hay. In (136b), with the truck being the direct object, it is being interpreted as fully loaded with hay, so that there cannot be any space left for other objects to load. Kearns also discusses the sentences in (137) (her example (37), p.119) which demonstrate the key entailment relation that exists between the two alternants. Thus, the *with* variant is known to entail the other variant, but not vice versa:

(137)   a. Jones loaded the truck with hay ***entails*** Jones loaded hay onto the truck
        b. Jones loaded the hay onto the truck ***does not entail*** Jones loaded the truck with hay

Rappaport and Levin (1988) analize the *with* variant as semantically more complex, containing the other variant – hence the entailment relation. Note, however, that the *with* variant is the one which is also surface scope frozen (138b), on my analysis results from an instance of overt movement of the structurally lower object above the structurally higher one. This of course doesn't contradict Rappaport and Levin's conclusion, but rather shows that the semantically more complex sentence is associated with a syntactically more complex derivation – a welcome result, I believe.

(138)   a. Jones loaded some hay on every truck (∃>∀), (∀>∃)
        b. Jones loaded some truck with every type of hay (∃>∀), *(∀>∃)

Let us now take a look at the Russian counterpart of the spray-load construction. The holistic effect associated with the direct object holds of the Russian examples as well. In each of the sentences below, the direct object is interpreted as being fully 'used up' in the

event described. Similarly, the entailment relation whereby the *with* variant entails the other alternant is observed for Russian as well:

(139) a. Vanja zagruzil [seno] [na gruzovik]
      Vania loaded [hay]$_{ACC}$ [on the truck]$_{ACC}$
      'Vania loded hay on the truck'   **no entailment**

   b. Vanja zagruzil [gruzovik] [senom]
      Vania loaded [truck]$_{ACC}$ [hay]$_{INSTR}$
      'Vania loaded the truck with hay'   **entails the other variant**

   c.Vanja zagruzil [kakoe-to seno] [na každyj gruzovik]
      Vania loaded [some hay]$_{ACC}$ [on every truck]$_{ACC}$
    'Vania loaded some hay on every truck'
  (some > every), (every> some)

   d. Vanja zagruzil [kakoj-to gruzovik][každym vidom sena]^{188}
      Vania loaded [some truck]$_{ACC}$ [every type of hay]$_{INSTR}$
      'Vania loaded some truck with every type of hay'
  (some > every), *(every> some)

(140) a.Vanja zalil [toplivo] [v bak]
      Vania filled [gas]$_{ACC}$ [into tank]$_{ACC}$
      'Vania filled gas into tank'   **no entailment**

   b. Vanja zalil [bak] [toplivom]
      Vania filled [tank]$_{ACC}$ [gas]$_{INSTR}$
      'Vania filled tank with gas'   **entails the other variant**

   c.Vanja zalil [kakoje-to toplivo] [v každyj bak]
      Vania poured [some gas]$_{ACC}$ [into every tank]$_{ACC}$
    'Vania filled some gas into every tank'
  (some > every), (every> some)

   d. Vanja zalil [kakoj-to bak] [každym vidom topiva]
      Vania poured [some tank]$_{ACC}$ [every type of gas]$_{INSTR}$
      'Vania filled some tank with every type of gas'
  (some > every), *(every> some)

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^{188} Note that on my analysis example (139d), for instance, which is scopally frozen with the Accusative-marked object preceding the Oblique-marked QP in overt syntax means this order is derived, with the Accusative actually originating lower in the structure, inside a PP with a silent P head assigning it case (Group 2 predicate on my classification)

(141) a.Vanja zagruzil [igry] [na komp'juter]

Vania downloaded [games]$_{ACC}$ [on computer]$_{ACC}$

'Vania downloaded gamed onto the computer'   **no entailment**

b.Vanja zagruzil [komp'juter] [igrami] (pod zavjazku)

Vania downloaded [computer]$_{ACC}$ [games]$_{INSTR}$ (to the eyeballs)

'Vania filled the computer with games'   **entails the other variant**

c. Vanja zagruzil [kakie-to igry] [na každyj komp'juter]

Vania loaded [some games]$_{ACC}$ [on every computer]$_{ACC}$

'Vania uploaded some games on every computer'

(some > every), (every> some)

d.Vanja zagruzil [kakoj-to komp'juter] [vsemi igrami]/[každoj igroj]

Vania loaded [some computer]$_{ACC}$ [all games]$_{INSTR}$ /[every game]$_{INSTR}$

'Vania loaded some computer with all the games/every game'

(some > every), (every> some)

Further evidence for the complete parallelism with respect to the *spray-load* alternation in Russian and in English comes from the fact that the (b) sentences above use the Instrumental-marked phrase where English employs the *with* phrase, which is semantically correct. It is quite telling then that it is the alternants with Instrumental-marked indirect object phrase that exibit the frozen scope, just as the *with*-variant does in English. The alternant with the Instrumental-marked indirect object (e.g., the counterpart of the *with*-variant) is also the one that entails the other alternant (the (a) sentences above). Thus, we have significant evidence suggesting that the constructions in the two languges are the same in all relevant respects, with the Russian one also providing significant support for the position (argued for in this thesis) that the Instrumental-maked/*with* variant is actually derived from the other one through an instance of overt movement[189].

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[189] See Partee (2005) (Formal Semantics, Lecture 10) for a detailed discussion of the *spray-load* alternation in English and in Russian and for a view, also supported by a number of Russian linguists cited there that the alternations in the two languages differ quite strongly in a number of respects. Specifically, Partee notes, "English does more with syntax. Russian makes much more use of the derivational morphology of verbs – different prefixes, and imperfective vs. perfective forms – and the morphology (or morphosyntax) of the marking of the arguments. In English, it is very common to find diathetic alternations in which only the syntax changes; in Russian you have to work hard to find such alternations without a change in the prefix on the verb or a change in aspect or both." (Partee (2005), p.8). I believe that the differences Partee discusses are largely responsible for the fact that in Russian the alternation is so much less productive than it is in English. Nevertheless, the parallelism between Russian and English with respect to the *spray-load* alternation in terms of scope and semantic relations discussed above strongly suggests that for all intents and purposes the construction is indeed the same and so the insights of this thesis regarding the scope freezing found in Russian should have significant consequences for the analysis of the English scope freezing data found in the *spray-load* alternation and the double object construction.