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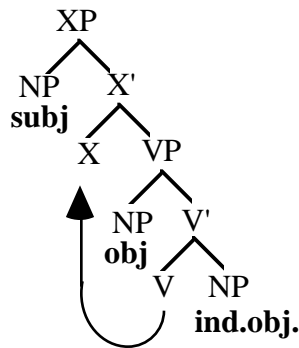
Underlying Phrase Structure and "Short" Verb Movement in Russian

John F. Bailyn
SUNY Stony Brook
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INTRODUCTION

The purpose of this article is to motivate a particular configurational approach to Russian phrase structure that accounts for a diverse set of facts from Russian in a uniform way. In particular, I argue that Russian underlying phrase structure consists of *three* hierarchically distinct argument positions as shown in (1):

1) Russian phrase structure (underlying):



In (1), we see that the underlying subject position lies outside the verb phrase (VP), in the Specifier position of a higher category XP. Direct and Indirect objects occupy distinct positions within the VP; Direct Objects are base-generated in the SpecV position, and Indirect and oblique Objects are in the sister of V⁰ position. This article thus motivates a hierarchical underlying sentence structure for Russian in which subjects, direct objects, and indirect objects are predicted to behave asymmetrically. Such an approach provides a simple and explanatory account for Russian subject/object asymmetries, scope relations, case assignment patterns, secondary predication, interpretation of anaphors, adverb placement, pronoun fronting, and coordination.

Furthermore, I show that in the syntax the verb raises out of VP into the higher category XP as indicated in (1), in the spirit of Larson's (1988) "VP-shell". I argue that XP is a particular functional category that unites primary and secondary predication, as independently motivated in Bowers (1993). Evidence is given that Russian exemplifies syntactic movement of V⁰ into this higher X⁰ head. Such verb raising is referred to as

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"short" verb movement. I argue that only an analysis that posits the three underlying positions in (1) and verb raising into the head of the intermediate category XP can account for the Russian facts while maintaining universal notions of structure and movement.

Finally, I show that such "short" verb movement is crucially distinct from agreement-driven syntactic $V^0 \rightarrow I^0$ movement in the sense of Pollock (1989) and Chomsky (1993). A diverse set of facts is closely examined that all converge on the conclusion that Russian is not a language with syntactic $V^0 \rightarrow I^0$ movement.¹ The article thus also provides a set of diagnostics for the existence of syntactic $V^0 \rightarrow I^0$ movement that can serve as the basis for distinguishing non- $V^0 \rightarrow I^0$ languages like Russian from true verb raising languages like French and others.

The resulting analysis has various important theoretical strengths in addition to its descriptive adequacy in accounting for a wide range of facts in Russian: It is consistent with Baker's (1988) Unified Thematic Assignment Hierarchy (UTAH) that associates distinct semantic roles with distinct underlying positions;² it is consistent with strong versions of Case Theory such as that of Bailyn & Rubin (1993) that require all NPs to receive case, including predicates; and it is consistent with a restrictive binary branching X'-Theory found in Jackendoff (1977), Kayne (1984) and elsewhere.

The article is organized as follows: In Section 1 arguments are given for the base structure given in (1), first on the basis of generally known subject/object asymmetries, and then on the basis of asymmetries among the internal arguments generated within VP. In Section 2 the nature of "short" verb movement is discussed and it is argued that XP in (1), the category sitting above minimal VP, is the independently motivated functional category PredP (Bowers (1993)) identified as crucially relevant to case assignment patterns in Russian secondary predicates by Bailyn & Rubin (1991, 1993). In Section 3 the important issue of syntactic $V^0 \rightarrow I^0$ raising is discussed, especially with respect to the proposal in King (1993) that Russian has overt $V^0 \rightarrow I^0$ movement. Various evidence, including comparison with other syntactic verb raising languages, shows that Russian lacks syntactic $V^0 \rightarrow I^0$ raising and that only "short" verb movement, coupled with the phrase structure in (1) argued for in Parts 1 and 2, will properly account for the various facts of Russian syntax.

¹Of course, it is assumed throughout that verb raising to INFL (and possibly higher) occurs at the level of Logical Form (LF) for languages in which it is not syntactically overt (such as English). This is in keeping with the Minimalism program of Chomsky (1993).

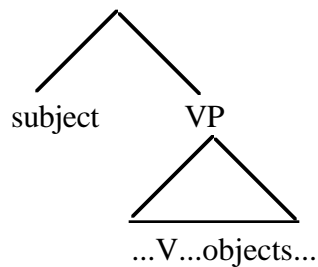
²See Bailyn (in press) for more discussion of the relationship between thematic roles, case assignment, and underlying structure.

Section 1: Motivations for three distinct underlying argument positions.

1.1 Subject/object asymmetries.

Subject-object asymmetries are well-attested in many languages, and form the basis of a hierarchical approach to syntactic structure that is generally uncontroversial in the modern syntactic literature on many languages. In this section, following Pesetsky (1982) and King (1993), I present three subject/object asymmetries that all point to a hierarchical underlying phrase structure for Russian in which the subject is base-generated outside the minimal VP projection that contains the verb and its objects.

2) Structure for subject/object asymmetries:



1.1.1 Binding.

Russian, like many other languages including English, requires a hierarchical approach to anaphoric binding based on the asymmetrical notion of c-command, to account for the following facts:

- 3) a. Ivan ljubit sebja
 Ivan_i-NOM loves self_i-ACC
 "Ivan loves himself."
- b. Ivan ljubit svoix druzej.
 Ivan_i-NOM loves [self'_{s_i} friends]-ACC
 "Ivan loves his [own] friends."
- *c. Svoi druz'ja ljubjat Ivana
 [self'_{s_i} friends]-NOM love Ivan_i-ACC
 "His [own] friends love Ivan."

In (3a) and (3b) we see that the Russian reflexive pronoun **sebja** and the reflexive possessive adjective **svoj** are bound to the subject NP (**Ivan** in both cases). This situation is predicted by standard versions of Principle A of the Binding Theory which state that an anaphor (such as **sebja** or **svoj**) must be bound by a c-commanding antecedent according to the definitions given in (4):

4) a. Binding Theory Principle A:

Anaphors (reflexives and reciprocals) must be **bound** (within some minimal domain)

b. α binds β iff

- i) α c-commands β
- ii) α and β are coindexed

c. C-command: α c-commands β iff:

- i) α does not dominate β and
- ii) all branching nodes that dominate α dominate β

The definitions in (4) determine that (3a) and (3b) are grammatical in any theory where subjects c-command objects, and that (3c), in which Principle A is violated because **svoi** is not c-commanded by **Ivan**, is ungrammatical. Furthermore, the ungrammaticality of (5) is also predicted by the Binding Theory (Principle B), as defined in (6):

*5). Ivan ljubit ego
 Ivan_i-NOM loves him_i-ACC
 "Ivan_i loves him_i."

- 6) a. Binding Theory Principle B: Pronouns must be **free** within some minimal domain.
 b. β is free of α iff α does not bind β

In (5), the pronoun **ego** is bound by **Ivan**, Principle B is violated, and therefore the sentence is ungrammatical. The relevant notion is c-command, which distinguishes subjects and objects in exactly the way necessary to account for the facts. The evidence of pronoun and anaphor interpretation supports the hierarchical subject/object asymmetries given in (1).

1.1.2 Extraction

WH-movement in Russian, found in relative clause and question formation, shows significant subject/object asymmetries that provide further evidence for a structure such as (1). The basic contrast is that of (7a) vs (7b) (original observation due to Pesetsky (1982)):

7) a. paren', kotorogo ja xotel čtoby Maša uvidela
 guy_i-NOM whom_i-ACC I wanted that Masha see t_i
 "The guy whom I wanted Masha to see..."

*b. paren', kotoryj ja xotel čtoby uvidel Mašu
 guy_i-NOM whom_i-NOM I wanted that t_i saw Mashu-ACC
 "The guy who I wanted to see Masha..." (adapted from King (1993))

In (7a) we have a direct object relative pronoun that is extracted from an embedded **čtoby** (subjunctive) clause³, whereas in (7b) we find that the equivalent relativization of an embedded subject NP is ungrammatical (the "*that-t* effect").⁴ This contrast is in keeping with the idea that certain structural constraints apply to movement processes, in particular that traces resulting from movement be properly governed. This falls under the "Empty Category Principle" or ECP, as given below:

8) a. The ECP: Empty categories must be properly governed.

b. Proper Government:

α properly governs β if:

- i) α theta-governs β **OR**
- ii) α antecedent-governs β

c. Theta-government

α theta-governs β iff:

- i) α is a head
- ii) α m-commands β
- iii) α assigns a theta-role to β
- iv) no barriers intervene
- v) minimality is respected

d. Antecedent Government

α antecedent-governs β iff:

- i) α and β are coindexed
- ii) α c-commands β
- iii) no barriers intervene
- iv) minimality is respected

³There are two kinds of complementizers in Russian, **čto** and **čtoby**. **Čtoby** clauses are used here because *any* extraction out of indicative embedded **čto** clauses is out for many speakers, so the subject/object asymmetry does not apply. Subjunctive-**čtoby** clauses allow extraction for most speakers, but only of non-subjects, as shown above. For further discussion of the **čto** vs. **čtoby** distinction, see Bailyn (1992).

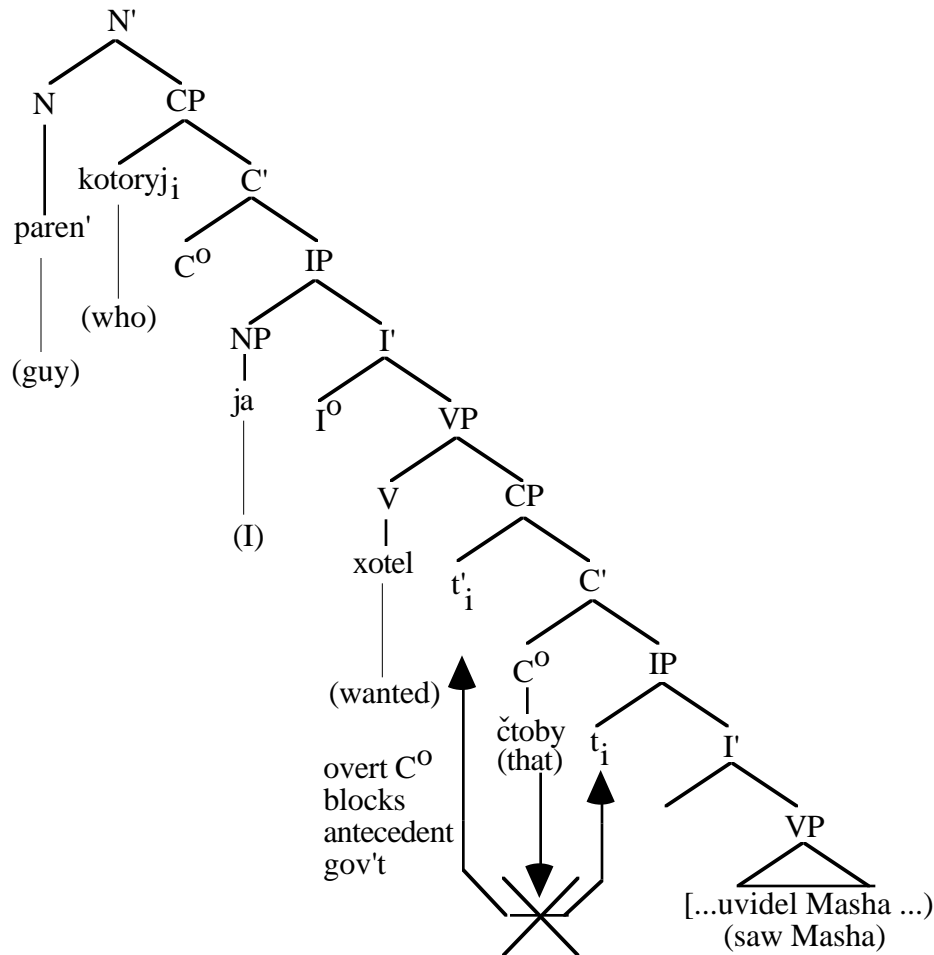
⁴(i) shows that the same effect holds for Russian WH-movement in question formation:

i) a. Kogo ty xočeš', čtoby Maša ubila ?
whom-ACC you want that Masha-NOM killed t_j
"Whom do you want Masha to kill?"

*b. Kto ty xočeš', čtoby ubil Mašu
Who-NOM you want that t_j killed Mashu-ACC
"Who do you want to kill Masha?"

The nature of the statements in (8) provides a configurational foundation for the well-known *that-t* effect found in English, and as (7a-b) show, in Russian as well, whereby the extraction of subjects from embedded clauses with overt complementizers results in ungrammaticality. Ungrammaticality is caused by the failure of embedded subject traces to be antecedent governed because of the presence of the overt complementizer blocking antecedent government. (Object traces are theta-governed by the verb, and hence always properly governed). The structure of (7b) is shown in (9).

9) Failure of antecedent government in subject extraction (structure of (7b))



Only an analysis of the sentence that is essentially asymmetrical with respect to subject and object position, coupled with a principle such as the ECP as given in (8), can account for the contrasts found in (7a-b). Thus we have seen that extraction facts provide further evidence that subjects and objects in Russian are generated in structurally distinct positions with differing properties, in keeping with (1). In this respect Russian is indistinct from English and many other languages.

1.1.3 The Genitive of Negation

A renowned Russian-specific construction that demonstrates significant subject/object asymmetries is the Genitive of Negation (see Babby (1980), Pesetsky (1982), Timberlake (1985), King (1993), and Bailyn (in press) for discussion). The basic facts of the Genitive of Negation are as follows: Direct objects of transitive verbs can appear in the Genitive case (instead of the usual Accusative case) when the verb is negated. The subject of a transitive verb, on the other hand, falls outside the realm of application of this case-assignment rule. This is shown in (10-11) below:

- 10) a. Ja čitaju knigi.
I read books-ACC
"I read books."
b. Ja ne čitaju knig.
I NEG read books-GEN
"I don't read books."
- *11) Menja ne čitaet knigi.
I-GEN NEG read books-ACC
"I don't read books."

The fact that this rule applies to a particular configurational position, as shown originally by Pesetsky (1982), is demonstrated by its applicability to the subjects of unaccusative verbs, whose sole arguments are generally assumed to be generated in underlying object position, that is, in a position hierarchically distinct from the position in which the subjects of transitive verbs are generated. This is shown in (12):

- 12) a. Pojavilis' studenty.
appeared students-NOM
"There appeared students."
b. Ne pojavilos' studentov
NEG appeared students-GEN
"There appeared no students." (or "No students appeared.")

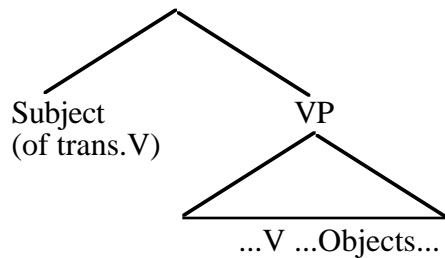
In (12a), the unaccusative verb **pojavit'sja** ('to appear') takes a Nominative subject. In (12b), under negation, that subject appears in the Genitive of Negation. (13) shows that this is not possible for the subject of unergative verbs (word order irrelevant here)

- *13) V pivbarax [kul'turnyx ljudej] ne p'jet
in beer halls [cultured people]-GEN NEG drink
"Cultured people don't drink in beer halls." (example from Pesetsky (1982))

Thus the Genitive of Negation case assignment rule provides further evidence for subject/object asymmetries in Russian. Any analysis of phrase structure in Russian will have to account for this basic asymmetry. Here, it is a natural result of the fact that the subject of transitive verbs is generated outside VP.

In this first section we have seen how such diverse facts as the interpretation of anaphors and pronouns, extraction asymmetries and the distribution of the Genitive of Negation fall out under an account of Russian in which the subject of transitive verbs is base-generated *outside* of the minimal VP containing a verb and its internal arguments. (14) provides a schematic representation, consistent with (1), of the minimal necessary base configuration necessary to account for these facts in a principled fashion, as indicated:

14) Structure for Subject-Object asymmetries:



1. subject c-commands objects
--binding facts
2. subject traces not properly governed
--extraction facts
3. subject generated outside of VP
--Genitive of Negation facts

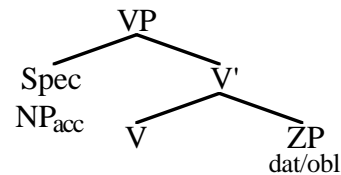
1.2 VP Internal Asymmetries.

We now turn to various lesser known facts that all point to significant VP internal asymmetries in Russian, and see that Accusative arguments (ACC) show behavior distinct from other internal arguments such as Datives, obliques, and prepositional phrases (which will all be referred to as DAT for the purposes of this section.) The structure proposed in (1) will account for all of these facts, and it will become obvious in the course of the discussion that analyses of Russian proposing or assuming flat VP internal structure, or those in which DAT occupies a hierarchically superior position to ACC, will be hard pressed to account for any of the data presented in this section.

In traditional generative accounts, direct objects have been thought to be in the position of the verbal complement, and are assigned Accusative case under government by any verb that does not assign lexical case. Dative internal arguments in case languages were originally considered to be reduced prepositional phrases by analogy with English *to*

John, and more recently have been analyzed as sisters to V' (as in Harbert and Toribio (1991) and Greenberg and Franks (1991)). These accounts share with mine the conclusion that Accusatives and Datives are canonically associated with distinct positions, and that Datives also receive case configurationally. However, following insights of Larson (1988) and Bowers (1993) from English, I will provide evidence that this is in fact the opposite of the Russian, and presumably universal structure of the Verb Phrase. A schematic representation of the VP internal structure to be motivated in this section is repeated in (15):

15) Internal Structure of VP:⁵



1.2.1 The Genitive of Negation again.

We begin by returning to the Genitive of Negation, and examining the fact that the rule may apply only to ACC internal arguments and not to Datives, Obliques and the like. This is shown in (16):

- 16) a. Slavka daet knigi studentam
 Slavka-NOM gives books-ACC students-DAT
 "Slavka gives books to students."
- b. Slavka ne daet knig / -i student-am /-ov
 Slavka-NOM neg gives books-GEN/-ACC students-DAT / *-GEN
 "Slavka does not give books to students."

It should be clear from (15) that we are now in a position to limit the domain of application of the Genitive of Negation to the SpecV position. Thus the direct objects in (16a-b) are in the proper position to receive Genitive of Negation, but the Dative indirect object is not. Other accounts of this phenomenon (Babby 1987, Freidin & Sprouse 1991) have had to resort to a lexical/structural case dichotomy in discussion of this asymmetry, which will fall out of the underlying structure proposed here, as will the structural/lexical case distinction that serves as the basis for those discussions. Below we will see that this asymmetry

⁵See Bowers (1993) and Larson (1988, 1991) for arguments from English in favor of such an analysis. Bowers' facts include quantifier float, the unification of 'external' and 'internal' subjects as arguments base-generated in Spec positions. Larson discusses the English double-object construction, and subject and object control verbs such as **persuade** and **promise** in a strong theory of control that respects minimality.

correlates with other lesser-known VP internal asymmetries confirming the proposed structure in (15).⁶

1.2.2 Non-subject-oriented Anaphors.

We have seen the workings of Principle A of the Binding Theory for Russian. It is well-known that Russian anaphors also obey a "subject condition" (see Klenin (1974) for discussion.) This means that the anaphor **sebja** 'self' and the possessive anaphor **svoj** 'self's', are bound by the subject, within some domain. However, there is a compound reciprocal in Russian, **drug druga**, that allows non-subjects antecedents. When a verb has both a direct and indirect object (Accusative and Dative), the Accusative argument may serve as an antecedent for a reciprocal in Dative position: This is shown in (17) below:

- 17) a. Mama predstavila Petrovyx drug drugu.
 Mama-NOM introduced the Petrovs_i-ACC each other_i-DAT.
 "Mama introduced the Petrovs to each other."
 b. Mama predstavila drug drugu Petrovyx.
 Mama-NOM introduced each other_i-DAT the Petrovs_i-ACC
 "Mama introduced the Petrovs to each other."

On the assumption that (17a) represents the underlying structure, and that (17b) is created by movement (scrambling) that can reconstruct for purposes of Principle A, we predict that both sentences are grammatical because an R-expression in ACC position c-commands the anaphor in DAT position. However, if the potential antecedent is in the DAT position, and the ACC argument is (or contains) the anaphor, then the DAT argument can not bind the anaphor unless it scrambles to a c-commanding position. Thus (18a) is acceptable for some speakers, whereas (18b) is ungrammatical for all as predicted by an underlying structure where Accusatives c-command Datives⁷.

- 18) ?a. Mama predstavila Petrovym drug drugu.
 Mama-NOM introduced the Petrovs-DAT each other-ACC.
 "Mama introduced the Petrovs to each other."
 *b. Mama predstavila drug druga Petrovym.
 Mama-NOM introduced each other-ACC the Petrovs-DAT

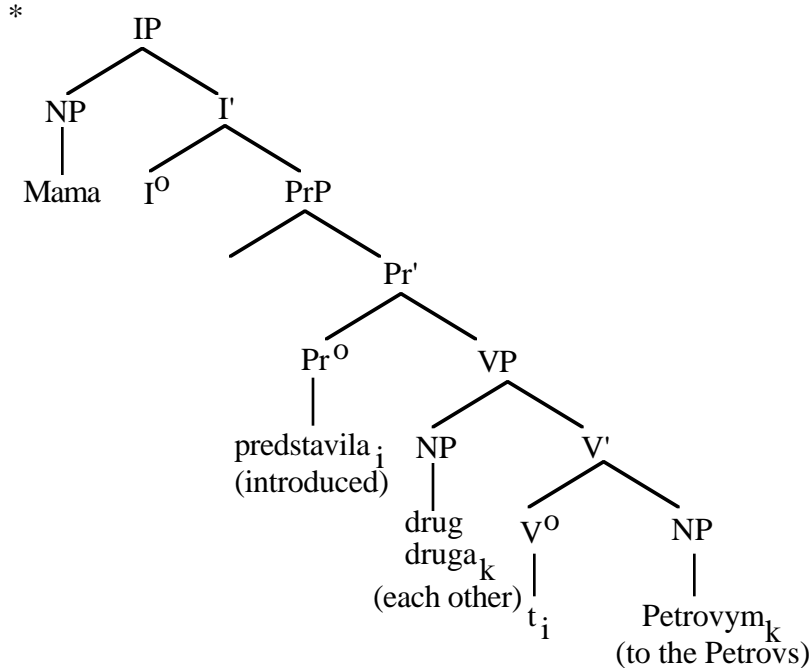
⁶Such an account has the additional advantage of restricting structural case assignment to Specifier positions, in keeping with current views of case assignment as checking processes (see Chomsky (1993)).

⁷For those speakers who accept (18a), I assume that VP internal scrambling is A-movement, as argued in Mahajan (1991) and Saito (1993). Such an analysis is required to allow the scrambled Dative NP **Petrovym** in (18b) to bind the Accusative anaphor on most standard versions of the Binding Theory.

"Mama introduced the Petrovs to each other."

The structure of (18b) is given in (19):

19) Structure of (*18b):



It should be obvious from (19) why (18b) is ungrammatical on the assumption that the structural notion of c-command is involved in anaphoric binding. The anaphor **drug druga** is not c-commanded by the argument that is its antecedent, **Petrovym**. When the two arguments are reversed, as we saw in (17a) above, the sentence is predicted to be grammatical, as it is.

We have seen that the distinction between (17b) and (18b) can be accounted for directly by the structure given in (15) above under standard c-command versions of Principle A of the binding theory.

1.2.3 Quantifier Scope.

It has often been claimed that quantifier relations are dependent on surface word order in free word order languages like Russian. Thus the single interpretation possible for both (20) and (21) show that quantifier scope relations are apparently dependent on surface word order: ⁸

⁸The same facts obtain when the existential and universal quantifiers are reversed, that is when the subject is "every student" and the object "two languages".

- 20) Dva studenta učatsja každomu jazyku.
 two students-NOM study (pl) [every language]-DAT
 "There are two students who study every language." $\exists x \forall y$
- 21) Každomu jazyku učatsja dva studenta.
 [every language]-DAT study (pl) two students-NOM
 "For every language there exist two students who study it." $\forall y \exists x$

Kiss (1986, 1987), in presenting similar arguments for Hungarian, uses a partially non-configurational deep structure that observes the simple principle given in (22):

- 22) An operator c-commands its scope. [=Kiss's (1986) principle 1]

She claims that it is this principle that determines the structural organization of the Hungarian sentence. A natural extension would be to assume that Russian belongs to the Hungarian type of languages with respect to the level of representation at which (22) holds:

In the language represented e.g. by English, ...operator scope relations can only be computed at a virtual level of representation called Logical Form. In the type of language represented by Hungarian, on the other hand, phrase structure encodes the logical structure of the sentence." (Kiss (1986) p. 210)

For Russian, (22) will account for the data in (21) straightforwardly.

However, Kiss (1986, 1987) argues that the Hungarian VP is not internally hierarchical in structure and all arguments move out and adjoin to IP forming quantificational operator-variable configurations (a case of A'-movement). Therefore her Principle 1 (22) applies to S-structures derived entirely through operator A'-movement (QR at surface structure). In the previous section, we saw that Dative arguments scrambled VP internally in Russian can sometimes bind anaphors (see (17-18)), (a case of movement to an A-position in the spirit of Mahajan (1991)). This kind of movement should not be enough to satisfy (22) in Russian on the assumption that VP internal scrambling is A-movement. We should therefore expect Dative arguments not to be able to have wide scope over Accusative arguments unless they are scrambled completely out of the VP. (23) shows this to be the case:

- 23) a. Ivan razdal vse vešči nekotorym studentam.
 Ivan passed [all things]-ACC [some students]-DAT
 "For all things X, Ivan passed those things out to (among) some students."
- b. Ivan razdal nekotorym studentam vse vešči.
 Ivan passed [some students]-DAT [all things]-ACC
 *"Some students are such that Ivan passed out all the things to each of them."
 "For all things X, Ivan passed those things out to (among) some students."

- c. Ivan razdal nekotorye veščī vsem studentam.
 Ivan passed [some things]-ACC [all students]-DAT
 "For some things X, Ivan passed those things out to (among) all the students."
 *"All the students are such that Ivan passed out some things among those students."
- d. Ivan razdal vsem studentam nekotorye veščī.
 Ivan passed [all students]-DAT [some thing]-ACC
 "For some things X, Ivan passed those things out to (among) all the students."
 *"All the students are such that Ivan passed out some things among those students."

The verb **razdat'** 'to hand out, distribute' is a Russian verb taking both a Dative and Accusative internal argument. (23b) is the same sentence as (23a) except that the internal arguments appear in opposite order. However the only possible interpretation of both (23a) and (23b) is one in which **vse veščī** 'all the things' has wide scope. (23c-d) show the same contrast with the actual quantifiers reversed, the existential quantifier being associated with the Accusative, wide scope, argument. Thus accusative arguments always have wide scope over dative arguments if both are internal, regardless of their relative order.⁹ A c-command account of scope coupled with the structure proposed in (15) predicts exactly these interpretations.¹⁰ Given a structure such as (15), it should be easy to see how the data in (23) will fall out from a principle such as (24), which says that the scope relations of two arguments within a sentence will be determined by the same principle that determines scope relations for languages like English at LF, namely c-command by an A'-binder.

24) Quantifier Interpretation Principle (Russian):

A quantifier α has wide scope over β iff α is in an operator-variable relation with β (A'-binding).

⁹This seems to hold with the following verbs: **dat'** 'to give' and all verbs based on it ('to pass', 'to pass around', 'to ask' etc.), **podarit'** 'to give as a present', **učit'**, 'to teach', and also with verbs that take direct objects and prepositional phrase arguments such as **klast'/položit'** 'to put, place' among various others. The true generalization seems to be that Accusative internal arguments have wide scope over Datives, and over oblique and PP arguments, a fact that falls out from the configuration proposed, in which Accusative internal arguments alone occupy the SpecV position.

¹⁰Judgments vary considerably on these data, especially when FOCUS is not controlled for. That is, both readings are possible on these sentences if the Dative argument receives FOCUS stress. This fact is in keeping with (15) and a hierarchical view of scope in a theory in which FOCUS associates an argument with a higher LF position. See Bailyn (in progress) for details of such an analysis. The readings given here were corroborated when neutral intonation (IK-1) was used in reading all the samples.

(24) says that an external argument always have wide scope over arguments still inside VP. We also predict that Accusative arguments will always have wide scope over Dative arguments, so long as both are still within VP. The data in (23) confirm this prediction.¹¹

1.2.4 Case behavior of internal arguments.

There are several kinds of Russian specific case occurrences that are systematically restricted to arguments that would otherwise be marked Accusative (direct objects) but not to those that would be marked Dative. These are the Genitive of Negation (discussed above in 1.2.1 above), the distributive preposition **po** that assigns Dative, certain numerals and quantifiers that assign Genitive, and partitive Genitive constructions. Examples of the former two are given here:

- 25) a. Ja dal malčikam jabloki.
I gave boys-DAT apples-ACC
"I gave the boys apples."
- b. Ja dal malčikam po jabloku.
I gave boys-DAT PO apple-DAT
"I gave the boys an apple each."
- *c. Ja dal po malčiku jabloki.
I gave PO boy-DAT apples-ACC
"I gave each of the boys apples."

(25a) shows a verb with both a direct and an indirect object. In (25b), the Accusative argument is replaced by a **po** + Dative construction. The Dative indirect object, like all obliques, cannot be transformed into a **po** expression. King (1993) shows that the same holds of unaccusative subjects but not of subjects of transitive verbs. This distribution is identical to the distribution of the Genitive of Negation that we saw earlier, and compatible with a theory that distinguishes direct and indirect objects configurationally.

Similarly, the quantifiers **5** (and above) show the same distribution. **5** assigns genitive case to its complement only if the quantified expression is in an Accusative case position. In the position of obliques, the numeral and its complement go into the oblique case. This is shown in (26):

- 26) a. Ivan uvidel pjat' professorov.
Ivan saw five-ACC [professors-GEN]
"Ivan saw five professors."

¹¹As noted above, such an account rest on the assumption that VP internal scrambling (local scrambling) is not A'-movement, as argued in Mahajan (1991), and therefore does not affect quantifier relations at LF. Thus in (22b) and (22d) the Dative internal argument continues to have narrow scope despite VP-internal scrambling.

- b. Ivan pomog pjati professoram.
 Ivan helped [five [professors]]-DAT
 "Ivan helped five professors."
- *c. Ivan pomog pjati professorov.
 Ivan helped five-DAT [professors]-GEN
 "Ivan helped five professors."

In (26a) the quantifier **5** assigns Genitive case to its complement. In (26b), the verb **help** assigns Dative to the quantifier **5** and to its complement. A construction such as (26c) in which Dative is assigned to the quantifier, but Genitive is assigned by the quantifier to its complement, is ungrammatical.¹² Given (15), we can say see the quantifier **5**, the preposition **po**, and a negated transitive or existential verb assign structural case to arguments *in a particular structural position* (the VP specifier position), whereas those arguments base-generated in complement position are assigned case only by the head that selects them. If the case assignor is a verb who does not assign oblique case, then Dative is assigned. Datives and obliques thus share the underlying position of V⁰ complement, a position that the 'structural' case assignment rules presented above, including the Genitive of Negation, simply do not effect.¹³

1.2.5 Control of Instrumental small clauses.

The final and most striking piece of evidence in favor of a VP internal structure such as (15) in which ACC direct objects are base-generated in SpecV and DAT and oblique arguments are verbal complements, concerns secondary predicates (so-called "small clauses"). It is well known that predicate nominals in Russian small clauses appear in the instrumental case (Pesetsky (1982), Nichols (1981), Švedova (1980), Kamynina (1973). Typical examples are given in (27) below:

- 27) a. On kažetsja durakom

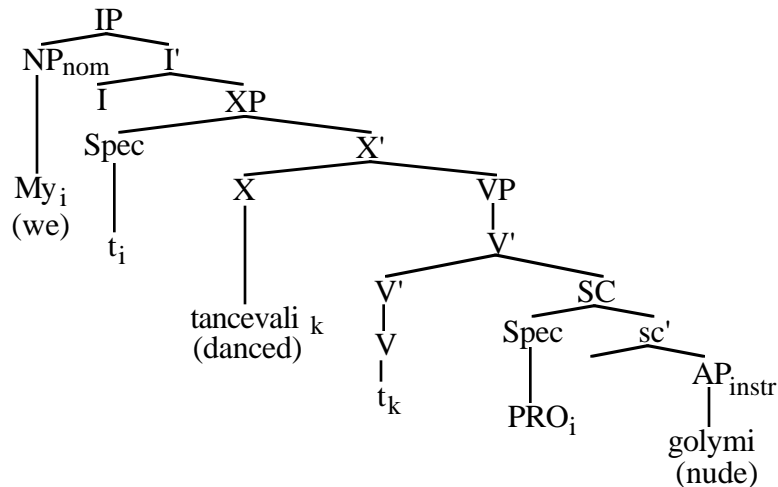
¹²There have traditionally been two kinds of explanations for such phenomena. One group of analyses, (Freidin & Sprouse (1991), Babby (1984)), relies on a distinction between lexical and structural case, invoking mechanisms of case conflict resolution or The Projection Principle to account for the resistance of lexically marked arguments (here Dative) to structural cases. The other group of analyses, including Pesetsky (1982) and King (1993) assumes that the distribution is (partially) determined by configuration. Given the Larson/ Bowers internal VP structure (15) argued for above, it can be maintained that both groups of accounts are essentially correct.

¹³In this respect, of course, there is a distinct similarity in accounts between the lexical vs. structural approach and the configurational approach, only now these facts now find explanation in the level at which case is assigned (S-structure for Specifiers, D-structure for complements). Rules of "case conflict resolution" may be eliminated from the grammar for such occurrences.

- he_i-NOM seems fool_i-INSTR
"He seems (to be) a fool."
- b. Ja sčitaju ego durakom.
I-NOM consider him_i-ACC fool_i-INSTR
"I consider him a fool."
- c. On okazalsja durakom.
He-NOM turned out fool-INSTR
"He turned out (to be) a fool."
- d. My tancevali golymi.
We_i-NOM danced nude_i-INSTR
"We danced nude."
- e. Ja našel ego p'janym
I-NOM found him_i drunk_i-INSTR
"I found him drunk."

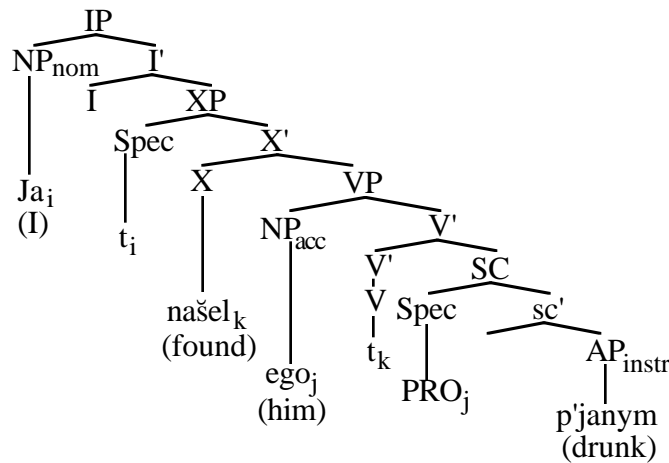
Following Bowers (1993) I assume that small clauses, such as those found in all the examples in (27), are secondary instances of a certain functional category, which will be discussed in Section 2. However, for the purposes of this section, the particular analysis of the nature of the category introducing secondary predicates is not relevant to the argument being made. I will therefore use the theory-neutral node *sc* (small clause) to indicate this category. VP internal small clauses are either verbal complements as in (27a-c) or V'-adjuncts, as in (27d-e). Thus the structure of (27d) is shown in (28):

28) Structure of (27d) *My tancevali golymi* ('we danced nude')



In (27) you can see that the main clause subject **my** ('we') c-commands and thus controls the PRO subject of the small clause. This allows for the appropriate interpretation of the small clause in (27d). And the structure of (27e), in which the direct object **ego** ('him') controls the PRO subject of the small clause, is shown in (29):

29) Structure of (27e) *Ja našel ego p'janym* ('I found him drunk')



In (29), you can see that the direct object **ego** ('him') is the minimal c-commanding potential controller of the PRO subject of the small clause, and therefore the only possible controller. (29) shows exactly why (27e) cannot be interpreted with **p'janym** ('drunk') referring to the subject **ja** ('I') rather than the object **ego** ('him').

Thus we have seen that a c-command based theory of control accounts directly for the interpretation of Russian instrumental secondary predicates. We now turn to the central issue at hand, namely the interaction of this approach to secondary predicates with a VP internal structure in which ACC direct objects are base-generated in SpecV and DAT arguments are base-generated in verbal complement position (as schematized in (15)).

The structure motivated thus far in this section make a clear prediction about the interpretation of secondary predicates: DAT arguments (that is Datives, obliques and PP arguments), being base-generated as sister to V⁰, should not be in a high enough position in the structure to control the PRO subject of adjunct small clauses. The contrast in (30) shows that this is exactly the case.

- 30) a. Marina vidit Ivana golym
 Marina sees Ivan-ACC nude-INSTR
 "Marina sees Ivan nude."
 *b. Marina zaviduet Ivanu golym
 Marina envies Ivan-DAT nude-INSTR
 "Marina envies Ivan nude."

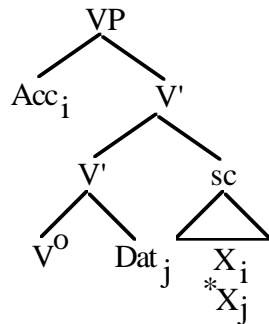
In (30a) the direct object **Ivana** is interpreted as "nude". In (30b) **Ivanu** is a Dative internal argument, and the reading with **Ivan** "nude" is ungrammatical.¹⁴

Furthermore, it can be shown that the distinction between these sentence is not related to the verb's lexical meaning or the thematic status of the internal argument involved. (31) and (32) each present pairs of verbs with similar lexical meaning, but in each case, only in the (a) sentences, with ACC internal arguments, can the internal argument be interpreted as the controller of the small clause PRO subject.

- 31) a. Marina učit Ivana golym
Marina teaches Ivan-ACC nude-INSTR
"Marina teaches Ivan nude."
*b. Marina prepodaet Ivanu golym
Marina teaches Ivan-DAT nude-INSTR
"Marina teaches Ivan nude."
- 32) a. Marina uvidela Ivana golym
Marina saw Ivan-ACC nude-INSTR
"Marina saw Ivan nude."
*b. Marina posmotrela na Ivana golym
Marina looked [at Ivan-ACC] nude-INSTR
"Marina looked at Ivan nude."

The (b) sentences are ungrammatical exactly as predicted by the VP internal structure presented in (1), (15), and justified by the facts in section 1.2 in general: DAT, oblique, and PP internal arguments, base-generated in verbal complement position, are too low in the tree to c-command the small clauses, and thus to control their PRO subjects. Thus because of the gender mismatch with the matrix subject, the (b) sentences are ungrammatical -- there is no appropriate c-commanding controller for PRO. (33) gives a schematic representation of the structure that explains all the facts given in this subsection.

33) Adjunct small clauses in Russian:



¹⁴There is a deliberate gender mismatch with the subject, so that if control by the DAT argument fails, the sentence becomes ungrammatical, as predicted.

It should now be clear how the configurational difference between Accusative and Dative/Oblique arguments schematized in (33) accounts for the VP internal asymmetries in control of small clause subjects discussed in this section.

1.3 Summary of Section 1.

In this section we have proposed a structure in which Accusatives c-command Datives at D-structure, and shown how this account for the binding of non-subject oriented anaphors, quantifier scope asymmetries, and various case facts. Finally it has been shown that only such a structure can account for the systematic inability of Dative and oblique arguments to control small clause subjects, as opposed to Accusative arguments, which are exactly high enough in the tree to c-command adjunct small clauses. No other VP internal structure for Russian that I am aware of can explain this wide range of VP internal asymmetries. (34) summarizes the facts given here in favor of the structure given in (1) and (15) for the internal structure of VP:

34) VP internal asymmetries in Russian:

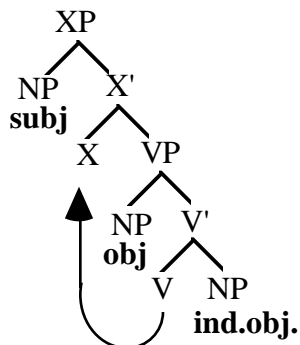
<u>Kind of Internal Argument:</u>	<u>Accusative</u>	<u>Non-Accusative</u>
Binds anaphor in other internal arguments	+	-
VP-internal wide scope	+	-
Assigned Genitive by Quantifier, Dative by po	+	-
Genitive of Negation	+	-
Controls subject of INSTR. small clause	+	-

We now turn to the category XP above VP and to evidence in favor of $V^0 \rightarrow X^0$ raising.

Section 2: "Short" Verb Movement and the XP above VP.

In Section 1, we have seen empirical motivation for the structure in (1), repeated as (35) for convenience, and in particular for the existence of three hierarchically distinct argument positions:

35) Underlying structure of the Russian sentence motivated in Section 1:



In this Section, we focus on the movement of V^0 to X^0 , and make the following claims: i) V^0 raising into the head of XP is mandatory ii) such movement is *not* parameterized or agreement sensitive, iii) XP is identified as the functional category PredP motivated in Bowers (1993). Thus we identify a new kind of verb movement, known as "Short Verb Movement" (SVM).¹⁵ The essential properties of SVM are given in (36):

36) Properties of **Short Verb Movement** (SVM)

- i) SVM does not differentiate between finite and non-finite verb forms
- ii) SVM is obligatory and universal¹⁶
- iii) SVM is not agreement sensitive (in the sense of Chomsky (1993))
- iv) SVM is distinct from $V^0 \rightarrow I^0$

2.1 Arguments for V^0 raising to X^0 .

In this section arguments for syntactic $V^0 \rightarrow X^0$ raising are presented.

2.1.1 The Local Nature of Theta-Role Assignment

Other theories that posit a category between VP and IP (notably Larson (1988) and Bowers (1993)), give primary attention is given to justifying the category's existence, as has been done here in Section 1 for Russian. Having established that this category sits between IP and VP, and contains the base-generated position for external arguments, it becomes a word order necessity, as shown above, that the verb raise into the head of this higher category. Thus Larson (p. 343) states that

V Raising may be taken to follow from certain Case and agreement requirements... Suppose... that Case is assigned under government, where the direction of government is rightward in English... the NP in the lower SpecV' is not governed by the verb and so cannot receive Case. V may be seen as raising to meet these requirements.

Later in Larson (1988), however, another possibility is raised:

¹⁵It must be made explicit throughout this discussion of Short Verb Movement, as an anonymous reviewer correctly points out, that no argumentation is being presented *against* the notion that verb raising to INFL occurs in Russian or any language -- if not in the syntax, then at the level of Logical Form (or in newer terms after Spellout). The arguments being presented here speak only to the parametric nature of Russian with respect to syntactic (pre-Spellout) verb raising, and crucially do not argue against verb raising as a universal, though not necessarily syntactically overt process.

¹⁶However see Bailyn (in progress) for arguments that V only raises to X when there is an external argument in SpecX, but does not occur when the verb is unaccusative.

it becomes possible to motivate V⁰ Raising through a requirement on the mapping of categorial and thematic structure: each argument must be governed by its head at some derivational stage ." (p. 384)

This account is in keeping with the approach taken in Bowers, and to be adopted here, whereby the necessity of assigning a theta-role locally to the external argument, base-generated outside of minimal VP, drives verb raising. Bowers states the case as follows:

I assume, first of all, that theta-roles are assigned *locally* to NPs... within the maximal projection of the X⁰ category containing the verb. The structural conditions under which theta-roles are assigned are thus identical to those under which Case is assigned. Second, I assume that theta-roles are assigned compositionally, going from the outermost theta-role as P-markers are built up....If theta-roles are assigned locally, then the obligatory movement of verbs into Pr⁰ follows at once, since otherwise it would be impossible for a theta-role to be assigned to the primary subject. (pp. 599-600)

Thus any verb that assigns a theta-role to an external argument in SpecX (our subject position) must undergo SVM. This will, of course, include infinitives such as that in (37), where the infinitive verb assigns the AGENT theta-role to the PRO subject in Spec of the higher category XP.

- 37) Ivan xočet [xpPRO napisat'_i [vp_{pis'ma} t_i svoim druz'jam]]
 Ivan-NOM wants to write letters-ACC [self's friends]-DAT
 "Ivan wants to write letters to his friends."

In (37) the infinitival verb **napisat'** 'to write' has three arguments, a subject (PRO), direct object (**pis'ma** ('letters')), and an indirect object (**svoim druz'jam** ('self's friends')). As in finite clauses, this embedded infinitive clause will have the base structure motivated in Section 1, that is, a VP with the direct object in SpecV and indirect object as complement of V, and a higher category XP with the subject (here PRO) in its Specifier. The verb raises by SVM to the higher X⁰ head position to assign a theta-role to PRO, and the proper word order obtains. Thus SVM does not differentiate between finite and non-finite verbs. This is a critical first indication that SVM differs from syntactic V⁰-->I⁰ of tensed verbs such as that discussed by Pollock (1989) for French.

We now turn to a further piece of evidence from Russian in favor of an analysis in which the verb is outside VP at surface structure.

2.1.2 Conjoined Structures.

Conjoined structures provide further evidence that the verb at surface structure is located outside the minimal VP in which it is base-generated. (This is consistent with both

the local nature of theta-assignment and the word order facts discussed above.) (38) contains coordinated VPs, each with an Accusative direct object and a small clause adjunct.

- 38) My našli Sašu p'janym a Borisa trezvym
 We found Sasha-ACC drunk-INSTR but Boris-ACC sober-INST
 "We found Sasha drunk but Boris sober."

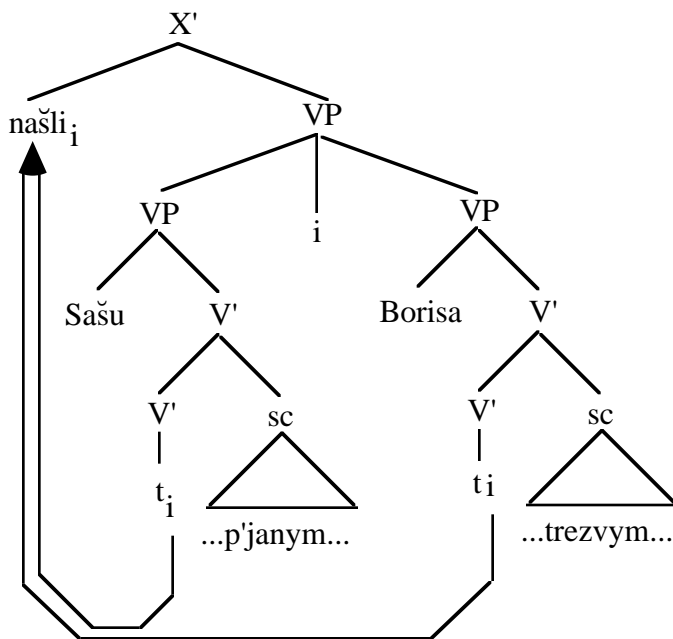
The example in (38) contains one main verb despite the presence of two coordinated VPs. Any theory that does not provide a position external to VP for the verbal head to be located would predict such sentences to be ungrammatical. Given the phrase structure proposed for Russian in (15) and (35), such sentences are generable as the result of Across-The-Board (ATB) extraction of the verb into the head position of the higher category XP.¹⁷ This is shown in (39):

- 39) Structure of (38):

¹⁷Notice that (38) cannot be analyzed as conjoined VPs in which the second conjunct contains a gap. For English, Bowers (1993) shows that such gapping results in ungrammaticality in cases with more than one clause inside the VP. The same effect holds in Russian, as shown below:

- *i) Maria položila knigi na stol i Nataša gazety na stul.
 Maria put books-ACC on table and Natasha Ø newspapers-ACC on table
 "Maria put the books on the table and Natasha the newspapers on the chair."
 *ii) Maria našla Sašu p'janym i Nataša Borisa trezvym.
 Maria found Sasha-ACC drunk-INSTR and Natasha Boris-ACC sober-INST
 "Maria found Sasha drunk and Natasha Boris sober."

Therefore under a gapping analysis (38) should be also ungrammatical which it is not. Thus we are left with the analysis of (38) as a case of ATB extraction into some higher category.



(39) shows the verb located outside of the VP at surface structure, as allowed under the view of phrase structure motivated in this article.

The remaining question concerns the position into which the verb has raised by ATB extraction. (40) provides a parallel sentence except that it contains an overt I⁰ auxiliary element. The verb being used is the verb **klast'** ('to put, place') that requires both a direct object and a PP GOAL internal argument.

410	Petja	budet	klast'	knigi	na stol	segodnja
	Petya	will	put _i	[books t _i	on table	today] _{VP}
	i	plastinki	na	stul	zavtra	
	and	[records t _i	on	chair	tomorrow] _{VP}	

"Petya will put the books on the table today and the records on the chair tomorrow."

Because (40) contains an imperfective future, a construction with an overt auxiliary **budet** ('will') which selects an imperfective infinitive, it is clear that the main verb **klast'** cannot have raised into IP, and therefore has no landing site for the ATB extraction if the category XP is not appealed to. (We shall also see empirical arguments against syntactic V⁰-->I⁰ raising in Section 3 of this article.) Thus (38) and (40) provide more evidence for Short Verb Movement into the head of the category XP.

We now turn to the issue of what the higher category XP is.

2.2 Identifying the Intermediate Category XP.

In this section, we adopt the claim that the (universal) category XP above VP is the Predicate Phrase (PredP) motivated in Bowers (1993). There is ample empirical motivation for PredP from English.^{18,19}

First, the PredP analysis unites primary and secondary predication and thus provides the first X'-theory compatible analysis of small clauses. PredP allows for ATB extraction constructions and accounts for quantifier float, double object constructions, and the facts of adverb placement in English in a uniform manner (see Bowers (1993) for discussion.)

Furthermore, Bailyn & Rubin (1991, 1993) show that proper application of this independently motivated hypothesis accounts for the Instrumental case marking on Russian secondary predicates discussed in Section 2, and for the historical change that occurred between Old Russian and Modern Russian, whereby secondary predicates that were previously case-marked by agreement with their controllers (the so-called "double dative" and "double accusative" or *vtorye kosvennye padeži* 'second oblique cases') began to appear systematically in the Instrumental case.

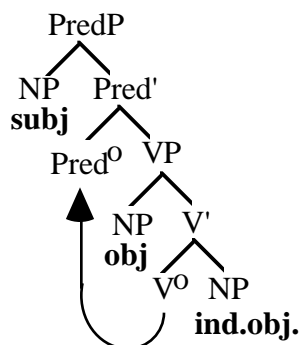
In the Bowers (1993) account of phrase structure, the first occurrence of PredP, then, is selected by matrix I^0 , and provides exactly the structure needed to account for Russian facts of Sections 1 and 2: SpecPr will be the canonical position for subjects of transitive verbs (and the canonical home for the AGENT theta-role in a tight UTAH-based theory). Crucial aspects of the VP internal subject hypothesis can be maintained, primarily that true VSO languages can be derived by V raising over the underlying subject position (from Pr^0 to I^0 over the SpecPr spot), and there still are two underlying argument positions inside the VP to account for the asymmetrical behavior of Accusative and Dative internal

¹⁸Notice, however, that for the purposes of this section, it is not crucial that readers accept all the details of the Bowers (1993) PredP hypothesis. What matters for our purposes here is that there be an additional level of structure between IP and innermost VP allowing for three argument positions and for the asymmetries identified in Section One. The "VP shell" account given in Larson (1988) may be used for the same purpose (although it will not account for the facts of Instrumental secondary predication).

¹⁹An anonymous reviewer mentions the issue of the universality of PredP. Although this issue does not bear directly on the analysis of Russian short verb movement, I would like to support the implication in Bowers (1993) that this category is universal, performing a uniform semantic type-shifting task of changing properties (of, for example, VP) into an unsaturated propositional function. Furthermore, the reviewer wonders about morphological manifestation of this category. First, there is evidence that English **as**, Russian **kak** ('as'), and **za** ('for') (in some usages) appear as the head of PredP. Additionally, Bailyn & Rubin (1991, 1993) demonstrate the unique case assignment properties of this category and the occasional use of **byt'** ('to be') as its head. Thus I assume that its universal nature allows it to be properly interpreted by the child, and that no parametrization is necessary with respect to this functional category. Finally, the extensive arguments in Section Three of this paper show that the child has ample evidence that there is no overt verb raising to INFL in Russian, further supporting the necessity of such an intermediate projection.

arguments that is lost in an account without such additional structure. Thus the underlying structure allows for three hierarchically distinct base-generated argument positions. (1), (15), (35) can now be reformulated as (41):

41) Russian phrase structure (underlying) (final version)



Independent motivation for the PredP analysis of Russian is summarized in (42):

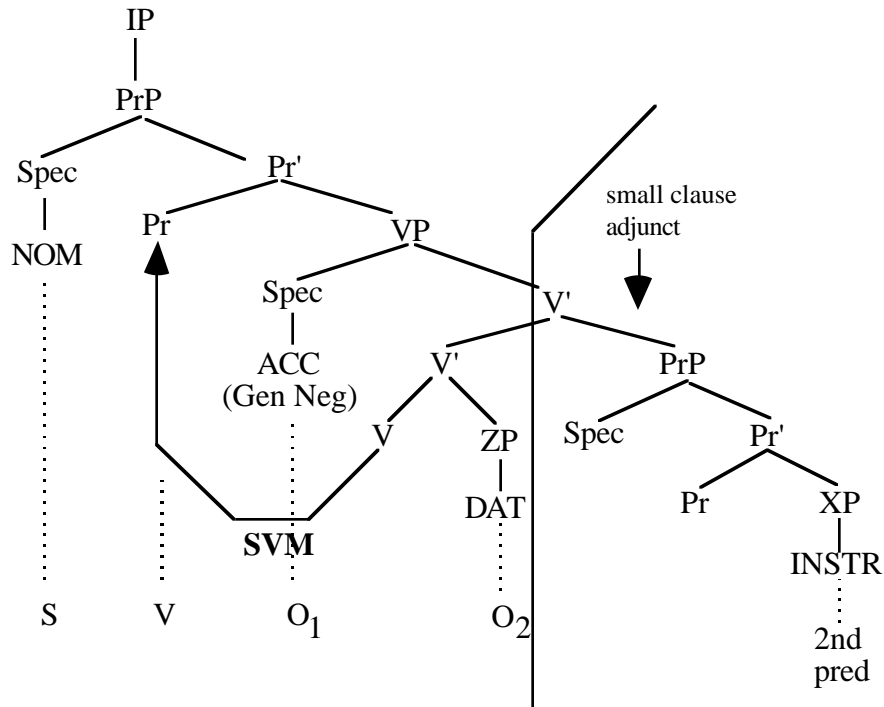
42) Motivation for PredP analysis of Russian:²⁰

- Allows for the three underlying argument positions shown to be necessary for Russian in Section 1
- Allows an analysis of small clauses as secondary predicates that provides a structural account of both Instrumental case marking in Russian small clauses and the control facts in secondary predicates (Bailyn & Rubin (1991, 1993))
- Accounts for ATB extraction constructions
- Allows for a strong theory of case assignment (see Bailyn & Rubin (1993))
- Accounts for the facts of coordination in Russian negatives (see Section 3.2.1.3)
- Accounts for the facts of adverb placement (see Section 3.1.3)

To summarize thus far: In Section 1 of this article we have seen empirical justification for an analysis of Russian phrase structure that includes three base-generated argument positions, as outlined in (1). In Section 2, we have motivated "Short Verb Movement" (SVM) into the head of the independently motivated functional category PrP sitting between IP and VP. However, the presence of SVM in Russian does not preclude the possibility of "long" verb movement, that is agreement driven $V^0 \rightarrow I^0$ movement in the sense of Pollock (1989) and Chomsky (1993) and we now turn in Section 3 to the important question of whether Russian demonstrates further movement into I^0 in the syntax. Thus the schematic structure of the Russian sentence can now be expanded as in (43):

43) The structure of the Russian clause (case system from Bailyn (in press))

²⁰See Bowers (1993) for arguments in favor of a PredP analysis of English.



Section 3: The Final Question: Does the Russian verb raise to I⁰?

King (1993) makes the specific proposal that there is syntactic verb raising into I⁰ in Russian: "Russian is a VSO language: SpecVP is subject position, and the tensed verb raises to I⁰ where it case marks the subject in SpecVP." An example of V-S-O in Russian taken from King is given in (44):

- 44) Posadil ded repku
 planted gramps-NOM turnip-ACC
 "Gramps planted a turnip."

In this section, we present various facts of Russian syntax to argue that Russian does *not* pattern with other verb raising languages, and we then return to the evidence in favor of verb raising to show that the facts do not justify the conclusion that the Russian verb is located in INFL in the surface structure.

3.1 Evidence against V⁰→I⁰ for Russian.

In this section we contrast Russian with languages with overt verb raising into I⁰.

3.1.1 Is Russian VSO? Typological universals.

"VSO" is a classification for languages like Welsh and Irish in which the tensed verb regularly appears before the subject. Current analyses of such languages such as McCloskey (1991) and Sadler (1988) claim that two interacting parameters of syntax conspire to create this surface order: 1) overt raising of the tensed verb into I^0 in the syntax, and 2) the assignment of Nominative case to a position lower than SpecI (SpecV in those accounts). We shall see that neither claim is entirely warranted for Russian. In particular, we will see that Russian does not have $V^0 \rightarrow I^0$ raising in the syntax, nor does it base-generate all subjects in SpecV.

Greenberg's (1963) typological universals show that VSO and SVO order are closely related with respect to correlated constructions, as opposed to, for example, SOV languages. We have seen in Section 1.1 that Russian consistently patterns with SVO languages. And despite the derivational relationship between VSO languages like Welsh and SVO languages like English, entailing the presence of prepositions (as vs. postpositions) for both kinds of languages, there are Greenbergian universals in which VSO languages differ from SVO languages. In particular, VSO languages differ from SVO languages with respect to Q(uestion) particles. Universal 10 says that Q particles following a particular word do not occur in VSO languages. However, (45) shows that in Russian the Q particle appears in embedded clauses in clitic second position, as shown in (45)²¹:

- 45) a. Ja xoču uznat', na rabote li Ivan.
 I want to know at work Q Ivan
 "I want to know whether Ivan is at work"
- 45) b. Ne izvestno, priedem li my vovremja
 not known arrive-1 pl Q we on time
 "It's not clear whether we will arrive in time."

Furthermore, Russian does not have any S-initial question particle, a feature common to VSO languages (Universal 9). An example of such a particle in Welsh is given in (46):

- 46) A ddarllenodd Siôn y llyfr? (WELSH)
 Q read John the book
 "Did John read the book?"

²¹Note that King (1993) analyzes *li* as being in C^0 , and cliticizing either to an XP element in SpecC or a raised head in C^0 . We adopt King's $V^0 \rightarrow I^0 \rightarrow C^0$ for neutral *li*-constructions (those without Topicalization), deriving the neutral V-initial order in such constructions. However, I do not consider this construction evidence in favor of $V^0 \rightarrow I^0$ in general, but rather the result of the specific features of *li* and embedded CPs. Furthermore, the typological status of *li* as uniformly occupying second position argues against a VSO account of Russian in terms of Greenberg's universals.

Universal 17 states that with overwhelming regularity, VSO languages have post-nominal adjectives. The neutral position for adjectives in Russian is clearly pre-nominal, as discussed extensively in Babby (1975) and elsewhere, and shown in (47-48).

- 47) [bol'šoj krasnyj dom]
 [big red house]-M.nom.sg
 "big red house"
- 48) *[dom bol'šoj krasnyj]
 *[dom krasnyj bol'šoj]
 *[bol'šoj dom krasnyj]
 *[krasnyj dom bol'šoj]

(49) shows that Russian adjectives are pre-nominal even in complex constructions where adjacency between the adjective and its head noun is interrupted by an adjectival complement:

- 49) [dovol'nyj vyborami prezident]
 [satisfied [elections]-INSTR president]-M.nom.sg
 "the satisfied-with-the-elections president."

This is in direct contrast to VSO languages like Welsh, where adjectives are post-nominal:

- 50) y car newydd (WELSH)
 the car new
 "the new car"

Thus we have seen that for those Greenbergian universals that distinguish VSO and SVO languages, namely the placement of Q particles and adjectives, Russian patterns systematically with the SVO languages.

3.1.2 Is Russian VSO? Russian vs. Welsh.

A direct comparison with examples from Welsh makes it apparent that Russian word order does not correspond to Welsh word order. In the next section basic Welsh examples (from Sadler (1988)) are compared with their Russian equivalents. (51) is a basic Welsh transitive sentence.

- 51) Gwelodd Mair y ddamwain (WELSH) V--S--O
 saw Mary the accident
 "Mary saw the accident."

In the case of (51), where we have a matrix transitive clause, the Russian equivalent (52a) is acceptable, although marked compared with the SVO version (52b).

- 52) ??a. Uvidela Marina stolknovenie.

saw Marina accident
"Marina saw the collision."

- b. Marina uvidela stolknovenie.
Marina saw collision
"Marina saw the collision."

Furthermore, consider (53), an example of a Welsh ditransitive, with order V-S-O-IO:

- 53) Rhoddodd yr athro lyfr i'r bachgen ddoe V-S-O-IO
gave-3 sg the teacher book to-the boy yesterday
"The teacher gave a book to the boy yesterday."

The Russian equivalent of this sentence, given in (54), is unacceptable without a carefully constructed and marked context and special intonation, again indicating that VSO(O) is *not* the underlying word order in Russian.

- ?*54) Dal učitel' knigu mal'čiku včera
gave teacher-NOM book-ACC boy-DAT yesterday
"The teacher gave a book to the boy yesterday."

Also, VSO languages like Welsh have standard AuxSVO orders for sentences with overt auxiliaries. An example in an embedded clause is given in (55):

- 55) Credaf y [bydd Siôn yn canu.] [Aux-S-V]
believe-1sg that [will John progr. sing]
"I believe that John will sing."

In Russian, however, the equivalent of (55) is ungrammatical as an indicative statement as shown in (56a). ((56b) is the preferred SVO equivalent.

- 56) *a. Ja verju, čto budet Ivan pet'. *(aux-S-V)
I believe that will Ivan sing.
b. Ja verju, čto Ivan budet pet'. (S-aux-V)
I believe that Ivan will sing.

Thus we can see that structures other than just simple three word SVO matrix sentences provide evidence against a VSO analysis of Russian. However, the arguments given above could be used more as a way of supporting an analysis of Russian in which there is no Nominative case assignment in SpecV, but in a higher projection. This approach would maintain $V^0 \rightarrow I^0$ raising as a possibility. In the next section, therefore, we turn to comparison with a $V^0 \rightarrow I^0$ language that allows case assignment to subjects in a VP-external position, namely French, and see that Russian also does not pattern with French. This leaves us with the only possible conclusion: that there is no $V^0 \rightarrow I^0$ raising in Russian.

3.1.3 Is Russian V⁰-->I⁰? Adverb placement and Russian vs. French

Pollock (1989) argues convincingly for a V⁰-->I⁰ analysis for French primarily on the basis of the facts of adverb placement. For example it is shown that VP adverbs regularly occur between the matrix verb and the direct object, but cause ungrammaticality if they stand before the tensed verb, in direct contrast to English. This is shown in (57):

- 57) a. (French) Jean embrasse souvent Marie.
 Jean kisses often Mary
 "John often kisses Mary."
 *b. (French) Jean souvent embrasse Marie.
 Jean often kisses Mary
 "John often kisses Mary."

On a V⁰-->I⁰ analysis, we would predict that Russian will pattern systematically with French in this regard.²² However, the facts show that Russian does not pattern with French, but rather with English, as is shown in (58) below:

- 58) ???a. (Russian) Ivan celuet často Mašu.
 Ivan kisses often Mary
 "John often kisses Mary."
 b. (Russian) Ivan často celuet Mašu.
 Ivan often kisses Mary
 "John often kisses Mary."

This distinction is starker in embedded contexts or with ditransitive verbs, as was found for SVO vs. VSO above. This is shown in (59):

- 59) a. Professora často razdajut knigi studentam
 Professors often hand out books-ACC students-DAT
 "Professors often hand out books to [their] students."
 ??b. Professora razdajut često knigi studentam
 Professors hand out often books-ACC students-DAT
 "Professors often hand out books to [their] students."
 c. Ja dumaju, što Ivan često celuet Mašu.
 I think that Ivan often kisses Mary
 "I know that Ivan often kisses Mary."
 *d. Ja dumaju, što Ivan celuet često Mašu.
 I think that Ivan kisses often Mary
 "I know that Ivan often kisses Mary."

²²In fact, on a VSO analysis in which Nominative case is assigned insider VP, one would predict that the subject should come *after* the raised verb.

Notice that the $V^0 \rightarrow I^0$ account predicts that the word order in the embedded clause in (59c-d) should be Adverb--Verb--Subject--Object (see footnote (22)). (60) shows that this order is also impossible in Russian.

*60) Ja dumaju, čto často celuet Ivan Mašu.
 I think that often kisses Ivan Mary
 "I know that Ivan often kisses Mary."

Thus we have seen in this section that the $V^0 \rightarrow I^0$ analysis makes incorrect predictions for Russian word order. We now turn to the specifics of the **SVM** proposal and then examine some additional syntactic facts in its favor.

3.1.4 Pronoun fronting.

It is well-documented that pronouns in Russian often stand before the verb, even in neutral contexts. (61) gives various examples:

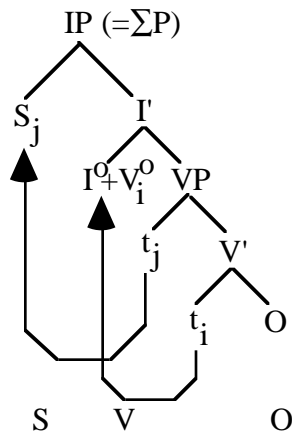
61) a. Ivan ego nenavidit.
 Ivan him-ACC hates
 "Ivan hates him."

- b. Ivan emu pozvonil.
 Ivan him-DAT phoned
 "Ivan phoned him."
- c. Ivan s nim rabotaet.
 Ivan [with him] works
 "Ivan works with him."

In (61a) we see a transitive sentence in which the direct object pronoun appears preverbally. Were the pronoun to appear post-verbally, it would either receive contrastive stress as a right focus, or the sentential stress would fall on the verb, and not at the end of the sentence (see Bryzgunova (1981) for definitions of intonation contours in Russian). Without such marked contexts, however, (61a) represents the neutral word order of this sentence. (61b-c) show that the same kind of order obtains with Dative and PP complements. On the assumption that pronominal arguments are base-generated in the same position as other arguments (an assumption that is implied by all accounts of argument structure), then the word orders shown in (61) are the result of some kind of pronoun fronting. The fronted PP in (61c) provides evidence that this is not simply a clitic as in other Slavic languages such as Czech and Serbo-Croatian.²³

The question arises as to what the position is to which the fronted phrases move. First, it should be noticed that in King's (1993) account of surface SVO sentences, the subject has moved from its base-generated position SpecV to the Spec of IP (her ΣP) for discourse reasons. Let us assume that this is the correct analysis of SVO. Thus a surface SVO sentence would have the derivation given in (62):

62) King's account of surface SVO:



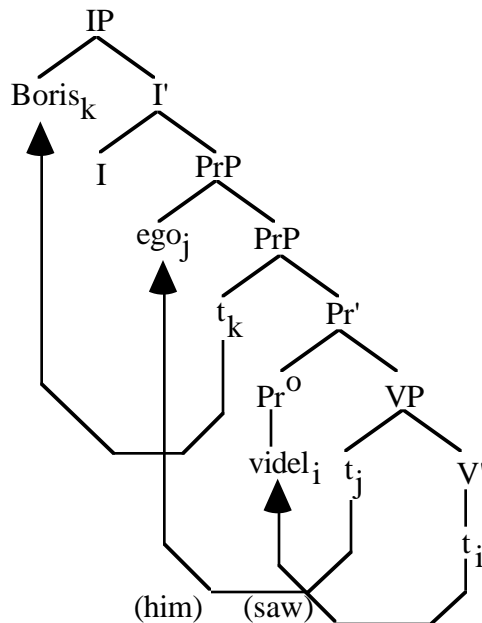
²³An anonymous reviewer has correctly pointed out that Pronoun Fronting of this kind is optional in Russian, as opposed to fronting of pronominal clitics in Serbo-Croatian, Czech and elsewhere. The orders in (61) are unmarked with respect to Theme-Rheme relations, and in any case the possibility of an alternate order in no way weakens the arguments given in this section.

It should be obvious from (62) that in such "derived" structures, nothing can intervene between the (raised) subject and the (raised) verb (in SpecI and I⁰ respectively). However, the facts of pronoun fronting in (61) demonstrate that pronouns often, indeed canonically, occur in exactly this position. Elsewhere, King (1993) assumes that fronted pronouns are in Topic position, and as such are adjoined to IP. This would predict, however, that they are always to the left of subjects that have moved into the SpecI "contrastive focus" position. This is clearly the wrong prediction, as shown in the exchange in (63):

- 63) a. Q: Kto videl Ivana?
 who saw Ivan
 "Who saw Ivan?"
- b. A: BORIS ego videl
 Boris him-ACC saw
 "BORIS saw him" or "It was Boris who saw him"

Boris is a contrastive focus, and is predicted by King (1993b) to appear in SpecI. The verb is located in I⁰ after raising and there is no available adjunction position between the two. However, on an account where the verb only undergoes **SVM**, but where subjects also raise to SpecI (= Spec Σ) for thematic purposes, then it is clear that there is an XP adjoined position where the fronted pronouns are located that is between the thematically prominent subject and the (short) raised verb. Such a derivation might look like (64):

64) Structure of (63b):



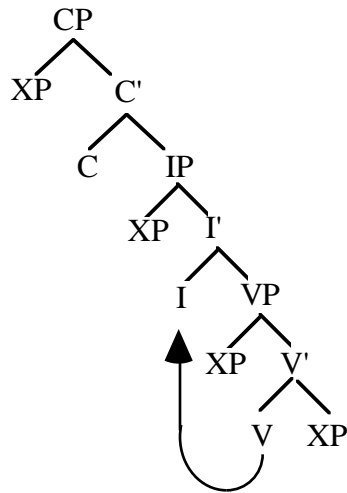
In (64) you can see that the fronted pronoun **ego** ('him') is adjoined to PrP (the VP shell). It should be clear from (64) how sentences like (61) can be generated freely. The system

schematized in (62), with the same kind of focus movement into SpecI from a lower subject position, and with verb raising to INFL, will have no available position for the fronted pronouns that is compatible with theories of adjunction and movement. This argument provides evidence against a $V^0 \rightarrow I^0$ raising analysis and in support of the PrP/VP shell analysis of Russian phrase structure with **SVM** to Pred^0 .

In this section it has been shown that Russian is not a syntactic $V^0 \rightarrow I^0$ language. We now turn to the data given in King (1993) in favor of a $V^0 \rightarrow I^0$ raising for Russian and show how they are consistent with the view of phrase structure motivated in this paper.

3.2 Addressing the arguments in favor of $V^0 \rightarrow I^0$.

65) King's (1993) Basic Phrase Structure (p. 19)



3.2.1 The arguments in favor of verb raising.

King (1993) proposes $V^0 \rightarrow I^0$ raising for finite verbs in Russian. The evidence in favor of such movement concerns WH-questions, scrambling, the distribution of negation markers, and coordination.²⁴ In the next section we will see that none of the evidence

²⁴In fact, additional evidence for verb raising is given in King's (1993) analysis of *li* constructions in Chapter 5. I will not discuss these constructions further here, except in footnote 21, but I will assume King's analysis of this construction (the verb undergoes head movement to C^0), yet still maintain that in the more general case, namely in indicative clauses, there is no V^0 raising to I^0 . This is similar to the English situation in which there is $I^0 \rightarrow C^0$ in questions only, but generally not elsewhere.

provided in favor of $V^0 \rightarrow I^0$ raising is incompatible with the analysis provided here. We will examine each of the first three in turn.²⁵

3.2.1.1 WH-questions.

King (1993a) claims that word order in Russian WH-questions indicates that $V^0 \rightarrow I^0$ raising has occurred, although she argues against the kind of $I^0 \rightarrow C^0$ movement that is found in German and English. "The unmarked word order [in Russian WH-questions] is WH-word--verb--subject, which is to be expected if the verb has moved into I^0 , thus

²⁵The brief section on coordination in King (1993) contains as evidence only the sentences in (i):

- i) a. Deti [čitali knigi] i [smotreli fil'm]
 children read books and watched film
 "The children were reading the books and watching the film." (King's #3)
- b. Nekotorye deti [čitali knigi] i [smotreli fil'm]
 some children read books and watched film
 "Some children were reading the books and watching the film." (King's #4a)
- c. Nikto ne čital knig i ne smotrel fil'mov
 no one neg read books and NEG watched films
 "No one read books and watched films." (King's #4b)
- d. Ja budu [pisat' pis'ma] i [čitat' knigi] ves' den'
 I will write letters and read books all day (King's #6a)
- e. Mne bylo [trudno najti kartu Moskvy] i [nevozmožno najti kartu Leningrada]
 me-DAT was difficult to find map Moscow and impossible to find map Leningrad
 "It was difficult to find a map of Moscow and impossible to find one of Leningrad" (King's #6b)

The argument, based on these facts, in favor of $V^0 \rightarrow I^0$ movement runs as follows:

A) "only constituents can be coordinated"

B) "coordination of I's and VPs is possible in Russian"

C) "the coordination facts in Russian suggest that an infinitive and its arguments form a constituent which does not include the finite verb, i.e., there is a VP constituent and a separate I' with an I^0 position for inflected verbs."

Example (ia), given the assumption of verb-raising, *forces* the need to allow coordinated I's (which a V^0 in situ analysis will not). Next, the possibility of I'-coordination raises the issue of possible IP coordination with *pro* subjects that King argues against with (ib-c), an unnecessary step for a non $V^0 \rightarrow I^0$ analysis. Finally, the coordinated infinitives in (id-e) show that VPs can *also* be coordinated. Nothing in these sentences, however, provides positive evidence that the verb raises to I^0 , or argues against an analysis in which the verb remains in the VP (shell). VP (shell) coordination can account for all of the relevant sentences. Crucially, the sentences provided by King *do not* show that "an infinitive and its arguments form a constituent which does not include the finite verb". In fact, the data show only that VP (shell) coordination exists in Russian, as it does in many languages. Nothing decisive about verb raising is proved on the basis of the coordination facts.

appearing before the subject." (p. 7) The examples given by King (her #s 16a-c) are repeated in (66):

- 66) a. Čto videli deti?
 what saw children
 "What did the children see?"
- b. Na kakom zavode rabotaet vaša sestra?
 at what factory works your sister
 "What factory does your sister work at?"
- c. O čem govorili studenty?
 about what talked students
 "What did the students talk about?"

Although the examples in (66) represent natural questions in Russian, they are misleading in two ways when provided as syntactic evidence in favor of $V^0 \rightarrow I^0$ movement. First, in terms of discourse structure, it is not possible in (66) to determine a "neutral" underlying word order because of the very nature of WH questions. In the literature on functional syntax, there is considerable discussion of the discourse status of WH words themselves. Generally, it is agreed that WH questions are ambiguous between exhaustive list questions and focus questions. In either case, it is not possible for all of the constituents (the O--V--S for example in (66a)) to be context-free. The very nature of the question task used in the literature on Functional syntax²⁶ to determine a neutral word order *in the answer* shows that all such WH questions may have discourse presuppositions that affect the word order. (66a) is a transitive question with the accusative object WH word moved to first position and the verb in second position. However, it should be mentioned that (66a) is ambiguous between two discourse readings: (i) a neutral reading, and (ii) the reading: What did the CHILDREN read? (as opposed to everyone else), in which case the contrast is created by rightward movement of **deti** under many accounts. Furthermore, many functional analyses of discourse structure argue that the verb often serves as an intermediate link between Theme and Rheme (see Firbas (1992)). If this is true, there may be additional movement occurring that is distinct from syntactic $V^0 \rightarrow I^0$ movement. In any event it is clear from the complex discourse status of WH questions themselves that we cannot take surface order as indication of underlying word order in the same way we can in neutralized contexts. Therefore we should expect sentences like (66) to be evidence in favor of syntactic movement only if all other orders are ungrammatical. We shall see shortly that this is not so.

²⁶See Kovtunova (1976), Krylova & Khavronina (1984), Svedova et al (1980), and Adamec (1966) for detailed Functional descriptions of Russian word order.

The second way in which the data in (66) are misleading concerns the transitive WH question (66a). If we add to this sentence an adjunct and form the question on the adjunct, the word order facts appear quite differently. This is shown in (67). Our hypothesis predicts the question in (67a). A $V^0 \rightarrow I^0$ hypothesis predicts the much less natural question in (67b):

- 67) a. Kogda deti videli babušku?
 when children saw grandmother
 "When did the children see [their] grandmother?"
- ??b. Kogda videli deti babušku?
 when saw children grandmother
 "When did the children see [their] grandmother?"

Thus it is clear that the transitive question in (66a) is not a simple case of $V^0 \rightarrow I^0$. The questions in (66b-c), in addition to the same discourse-neutrality difficulties just discussed, are intransitives, for which we have already seen a different underlying order than for transitives. Thus these WH questions do not provide evidence for $V^0 \rightarrow I^0$ raising in Russian unless the other order is impossible. And not only have we seen that in (67) the S before V order is in fact preferred, it is also true that for all of the examples in (66), the alternate word order is also completely acceptable. This is shown in (68):

- 68) a. Čto deti videli?
 what children saw
 "What did the children saw?"
- b. Na kakom zavode vaša sestra rabotaet?
 at what factory your sister works
 "What factory does your sister work at?"
- c. O čem studenty govorili?
 about what students talked
 "What did the students talk about?"

Therefore we conclude that the facts of WH-movement do not support a $V^0 \rightarrow I^0$ analysis.

3.2.1.2 Scrambling.

The scrambling facts taken from colloquial Russian demonstrate a systematic distinction between the behavior of tensed clauses and infinitives. This basic contrast is presented in (69):

- 69) a. Ja [učit'sja v novoj škole] slyšal, on budet
 I [study-INFIN in new school heard he will
 "I heard that he will study in a new school."

- *b. Ja [pošel v školu] skazal, (čto) on
 I [went to school] said that he
 "I said that he had gone to school."

The argument based on the facts in (69) is drawn from unpublished work by Yadroff (1992). The question arises, however, as to what the source of the ungrammaticality of (69b) is. In King's account, (69b) is ungrammatical because the tensed verb has moved from V^0 to I^0 and "scrambling only affects maximal projections" (p. 24). Therefore a derivation moving the tensed verb, located outside of VP, will be ungrammatical.

However, there is another possibility for the ungrammaticality of (69b), and that concerns the status of tense in the embedded clause in (69a-b). When the scrambled phrase is an infinitival VP, such as (69a), the PRO subject of the infinitive and the embedded tense in I^0 do not cause the derivation any problems. However, in (69b), there is a lexical subject of the embedded clause, **on** (he), and the fronted clause does not contain that subject. Thus the category above VP containing the subject **on** ('he') and tense, is not fronted. This leaves the embedded clause with no lexical support for tense, and the derivation fails.²⁷ On such an account, therefore, it is exactly because Russian is not a $V^0 \rightarrow I^0$ raising language that (69b) is ungrammatical. This in itself is as likely a source of the contrast in (69) as the verb-raising account.²⁸ In other words, the ungrammaticality of (69b) can be accounted for independently of a possible $V^0 \rightarrow I^0$ raising analysis, leaving the question open as to whether there is in fact any true syntactic evidence in favor of syntactic verb raising to INFL for Russian sentences.

3.2.1.3 Negation

King's (1993) section on negation begins with the assumption that because "negation is never separate from the finite verb; I assume that the negative marker is adjoined to I^0 ." (p. 36). She does not posit a distinct NegP projection for negation in

²⁷It is generally considered that part of the (universal) justification for verb raising to INFL at *some* level of representation is to support abstract Tense features. This assumption plays a role in Pollock (1989), Chomsky (1993) and elsewhere, and therefore enjoys independent motivation.

²⁸Notice, furthermore, that English shows a similar effect with respect to Topicalization. This is shown in (i)-(ii):

- i) Play chess, John certainly will not.
- *ii) Plays chess, John.

The Russian contrast in (69a-b) does not necessarily differ from the English contrast in (i-ii), and it is a well-established fact that English is *not* a syntactic verb raising language. Therefore it follows that the difference between (69a) and (69b) does not necessarily indicate overt verb raising to INFL in Russian.

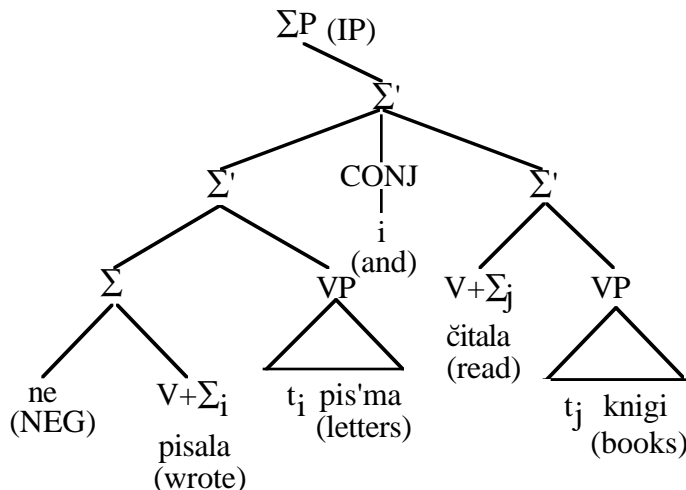
Russian, but rather assumes that the Neg+I projection is Σ^P . $V^0 \rightarrow I^0$ movement thus becomes $V^0 \rightarrow \Sigma^0$ movement, where negation is cliticized to the raised verb. (It should be noticed, that such a proposal does not produce independent evidence in favor of $V^0 \rightarrow I^0$ raising.) King shows that in certain coordinated structures, the second finite verb does not fall under the scope of negation. This is shown in the contrast between (70a) and (70b):

- 70) a. Ja ne budu [pisat' pis'ma] i [čitat' knigi / knig]
 I neg will write-INFIN letters- and read-INFIN books-ACC / -GEN
 "I will not write letters and (will not) read books."
 b. Ja ne [pisala pis'ma] i [čitala knigi / *knig]
 I neg wrote letters and read books-ACC / *-GEN
 "I did not write letters and (*did not) read books."

In (70b), as opposed to (70a), negation does not have scope over the second coordinate. This finding is reinforced by the fact that the Genitive of Negation can occur in (70a) but not in (70b). On King's account, the difference here depends crucially on the finiteness of the main verb. Finite verbs, on her account, raise into I^0 (Σ^0), where the negative element is base generated. Because (70b) is I'-coordination on her account (whereas (70a) is VP coordination), the coordination in (70b) occurs above the level of the negation, and therefore negation does not have scope over the other conjunct in (70b).

The account of negation in King (1993) encounters an important theoretical difficulty, however. First, there is a potential scope problem with this analysis as stated. If (70b) is truly I' (Σ')-coordination, and scope is determined by strict c-command, then negation should never have scope over anything except the head it is adjoined to and thus no direct object should be able to be marked Genitive, which is clearly false. This potential problem is schematized in (71):

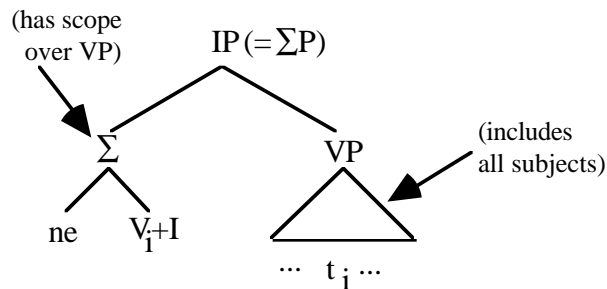
- 71) King's structure for (70b): (her example (32), p. 38)



One might think that an m-command account of scope be used in these cases. But an m-command account of the scope of negation here will allow negation to have scope over both conjuncts, which is exactly what the account was devised to exclude. This scope problem is solved, of course, by an indexing theory that allows the original in head adjunction structures (such as the complex Σ^0 head in (71)) to acquire the features of the heads adjoined within it. Thus Σ^0 in (71) will be considered a NEG head and a c-command account will allow scope to extend to the direct object but not into the other conjunct, as required by the facts.

This leads us to the real theoretical difficulty, however. Under the VP-internal subject hypothesis, there will be no available configurational explanation for the distribution of the Genitive of Negation (GEN-NEG). If it is c-command after indexation that determines the scope of negation, then we predict that all subjects should be able to appear in the genitive of negation since they are all base-generated under the scope of negation. There will be no principled way to exclude GEN-NEG on transitive subjects, an obvious shortcoming of such an account. (72) provides a schematic representation of this difficulty:²⁹

72) King's structure for negation:

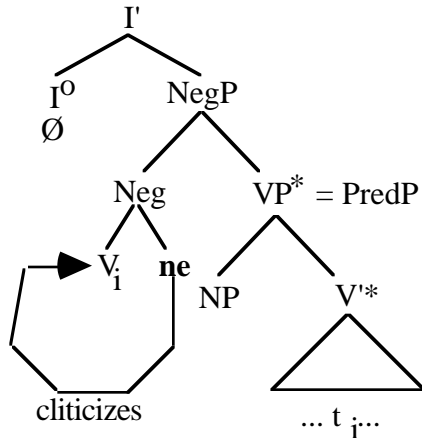


Thus we have seen that the Neg + Σ^0 account of negation does not make the correct predictions for Russian even if the scope properties of the negative item can be worked out. We are left with the problem of what accounts for the contrast in (70). To solve this problem, I assume that negation projects its own phrase just above VP (or the VP shell). Because it is also a clitic phonologically, Neg requires lexical support. In (70a) the negative element raises to an overt I^0 and is supported by **budu**. In (70b) the main verb must raise

²⁹Of course, this is a difficulty for any strict VP-internal subject account of Russian that does not differentiate the base-generated position of transitive and other subjects, and in fact provides independent evidence against the VP-internal Subject Hypothesis. This leads one to posit an additional level of structure, such as the VP-shell or the PredP, where unergative subjects can be base-generated. And this in turn allows for the possibility of SVM rather than $V^0 \rightarrow I^0$.

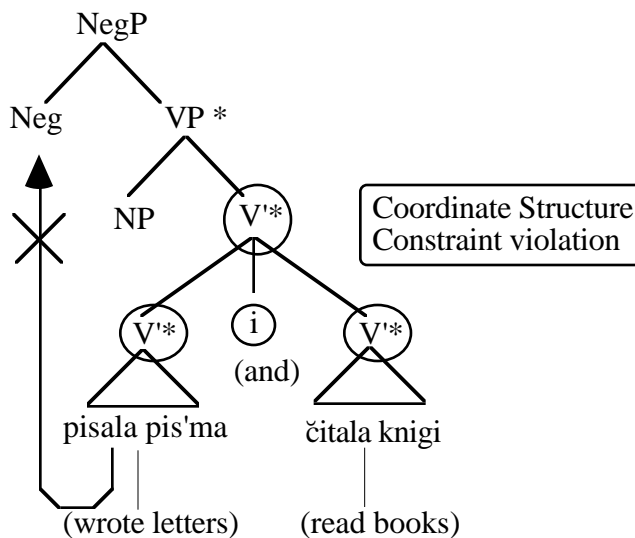
to support **ne** (I^0 being empty). In cases where there is no overt element in I^0 , the only possible phonological support for **ne** will be a verb that raises into Neg^0 . Thus the structure of a simple negative sentence without an overt auxiliary is given in (73):

73) Russian negation:



In (73) you can see that if there is no overt element in I^0 into which **ne** can raise to be supported, then the verb raises into Neg^0 so that **ne** is somehow supported. In the case of (70a), with coordinated VPs under a common negated auxiliary, **ne** itself will raise to I^0 to be supported. In (70b), in which there is no overt element in I^0 , the negative element still take scope over both conjuncts. However, there is no derivation that can cause **ne** to be supported in (70b) such that the Coordinate Structure Constraint is not violated. This is shown in (74):

74) Underlying structure of (70b):



It is clear from (74) that raising of either verb out of the VP shell into the head of NegP to support **ne** will immediately cause a Coordinate Structure Constraint violation in cases like these. The problem with (70b) is not one of scope but rather of support for the clitic **ne**.

Thus we have seen that $V^0 \rightarrow I^0$ raising is not the only possible account for the distinction between (70a) and (70b), and that such an account raises theoretical difficulties for the definition of scope. Instead, an account is proposed in which the requirement of **ne** to be supported leads to the distinction between the two sentences.³⁰

3.3 Summary.

Sections 1 and 2 established that an additional category between IP and VP is necessary to properly account for a range of facts in Russian and that there is Short Verb Movement into the head of this category. In Section 3, we have seen that Russian does not pattern with languages that have syntactic $V^0 \rightarrow I^0$ movement. It is typologically distinct from VSO languages like Welsh, and does not share any basic word order patterns with Welsh. Furthermore the facts of adverb placement show that Russian does not pattern with syntactic $V^0 \rightarrow I^0$ SVO languages like French. Pronoun fronting facts from Russian further discount the verb raising hypothesis for Russian because such an account predicts that no fronted material can stand between the subject and tensed verb, something that Russian pronoun fronting constructions systematically violate. Finally, we saw how all the purported evidence in favor of Russian verb raising can be accounted for without positing syntactic $I^0 \rightarrow V^0$ for Russian. These arguments are summarized in (75):

³⁰Further evidence against the $V^0 \rightarrow I^0$ raising account of the distinction between (70a) and (70b) comes from the fact that on such an account the ability to support **ne** must be limited to finite verbs, and thus we should not expect infinitives to be able to participate in this process when there is no overt element in I^0 . However, there are instances of bi-clausal structures in which there is no overt auxiliary but there is an infinitive in the lower clause. In such cases, it is possible for **ne** to be cliticized to the infinitive and take scope over the verb's arguments. Such a case is illustrated in (i) (and obtains in the English gloss):

- i) Vsegda lučše ne govorit' takix veščej.
 Always better neg to say-INFIN [such things]-GEN-NEG
 "It is always better not to say such things."

(i) shows that it is not necessarily the tensed element that **ne** cliticizes to, and that an infinitive to which **ne** cliticizes can also have scope over VP internal arguments, allowing them to be marked with the GEN-NEG. We have thus shown that $V^0 \rightarrow I^0$ raising of finite verbs is not the proper way to account for the facts of coordination and negation in Russian.

75) Summary of verb movement facts:	SVM	V ⁰ -->I ⁰
--Across-the-Board Extraction	+	*
--typological universals	--	*
--word order (compared with Welsh)	+	*
--clauses with overt auxiliaries	+	*
--ditransitives/theta-role assign	+	*
--adverb placement (compared with French)	--	*
--coordination and negation	+	*
--pronoun fronting	--	*
--distribution of Genitive of Negation	+	*

4.0 Extensions and Conclusions.

4.1 Extensions.

The analysis given in this article has an additional advantage in accounting for certain facts of Russian word order. In Russian, the neutral word order for transitive sentences is SVO, as shown throughout this article, but for unaccusative, the neutral word order is canonically VS. Examples from Krylova & Khavronina (1984) are given in (76):

- 76) a. Šel dožd'
 went rain
 "It was raining."
- b. Neslyšno proletela kakaja-to neizvestnaja ptica.
 quietly flew through some kind of [unknown bird]-NOM
 "An unknown bird flew quietly by."

Notice that the unaccusative subjects in (76) are indefinite. We have already seen that unaccusative subjects in Russian are base-generated in the canonical direct object position, here SpecV. On the assumption that such indefinites receive an indefinite interpretation by virtue of remaining inside VP and being subject to existential closure, in the spirit of Diesing (1991), and receive case inside VP as partitives (Belletti 1988), we would expect Short Verb Movement in such cases to lead to VS order. For non-indefinite, non-existential subjects, such as the embedded subjects in (78), the neutral word order is still predicted to be SVO.

77) Q: What's happening tomorrow?

- *A1: Kogda my priedem, budet brat risovat' portrety
 when we arrive will brother-NOM draw portraits-ACC
 "When we arrive, [my] brother will draw portraits."
- A2: Kogda my priedem, brat budet risovat' portrety
 when we arrive brother-NOM will draw portraits-ACC
 "When we arrive, [my] brother will draw portraits."

Thus the fact that neutral word order is SVO for transitives but VS for unaccusatives falls out from the account given in this article, providing additional support for the analysis presented here.

4.2 Conclusions.

We have seen in this article that Russian phrase structure must be characterized by a base-generated system allowing for *three* hierarchically distinct underlying argument positions. Such an account is only possible if we posit a functional category PrP between IP and VP, into which the verb moves during the course of the derivation, (in the spirit of Larson's (1988) VP shell). Thus subjects of transitives are base-generated in SpecPr, direct objects in SpecV and Indirect and Oblique objects as complement to V^0 . We have seen that only such an underlying structure can account for the full range of subject/object and Accusative/Dative asymmetries found in Russian. Finally we have examined substantial evidence from Russian against syntactic verb movement into I^0 . This is in accordance with the approach to syntax found in Chomsky (1993) whereby languages are predicted to differ with respect to agreement driven movement processes based on strong and weak features. For Russian, therefore, we can conclude that verbal features are weak, and thus verb raising to I^0 occurs after the sentence reaches surface form (Spell-out) and not before as in French, Welsh and other languages. These conclusions are summarized in (78):

78) Conclusions:

- There is evidence in Russian for configurational structure, in particular for a VP that does not include the subject of transitive verbs.
- There is evidence in Russian for VP internal asymmetries, in particular for a structure in which ACC asymmetrically c-commands DAT.
- There is evidence in Russian for a functional category such as PredP between IP and VP.
- Verbs raise to Pr^0 in Russian but no further. (SVM)
- Russian does not behave like VSO languages (Welsh) or like $V^0 \rightarrow I^0$ languages (French).
- Neutral word orders can be accounted for by Short Verb Raising and extended VP structure.

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