Head movement and ellipsis
in the expression of Russian polarity focus

Vera Gribanova

Есть у нас на да и нет // Антинет и антида!
We have for every yes and no // an anti-no and anti-yes!
–Vsevolod Nekrasov, *Antistix* ('Anti-poem'), 2002[1]

Abstract This paper argues, based on the interaction of head movement and ellipsis possibilities in Russian, that certain types of head movement must take place in the narrow syntax. It does so by examining a variety of Russian constructions which are unified in several ways: they express some type of polarity focus; they involve head movement of the verbal complex to a high position (Pol), resulting in discourse-marked VSO orders; and some of them involve ellipsis (of either *v*P or TP). Investigation of the interaction of the head movement and ellipsis possibilities of the language yields three of four logically possible patterns. I argue that the unattested pattern should be explained using reasoning that invokes *MaxElide* (Merchant, 2008) — a principle normally used to explain why the larger of two possible ellipsis domains must be chosen if Ā-movement has occurred out of the ellipsis site. Extending this logic to the interaction of head movement and ellipsis requires that we take head movement to be a syntactic phenomenon.
Keywords: ellipsis, head movement, polarity focus, MaxElide

1 Introduction

This paper charts the interaction between head movement, ellipsis, and non-canonical word orders in the derivation of a variety of Russian responses to statements or questions that raise polar alternatives in the discourse. The inventory of possible responses to such a discourse situation differs significantly from language to language (for useful surveys see Pope 1976; Sadock and Zwicky 1985; Jones 1999; Farkas and Roelofsen 2015); Russian productively leverages both polarity particles and verbal elements repeated

Vera Gribanova
Department of Linguistics
Stanford University
Margaret Jacks Hall, Building 460
Stanford, CA 94305-2150
Tel.: +1-650-725-0023
E-mail: gribanov@stanford.edu

[1] 'And for no and yes, what's here — Anti-no and anti-yes!' Published translation by Ainsley Morse and Bela Shayevich, from *I live I see*/Selected Poems/Vsevolod Nekrasov. 2013.

from the prior discourse in a fairly wide array of constructions, a representative set of which is provided in (1).[2]

(1)   Evgenija otpravila   posylku   v Moskvu?
      Evgenija send.PST.3SG.F package.ACC to Moscow.LOC
      'Did Eugenia send the package to Moscow?'

    a. Net/da.
       Yes/no
       'Yes/no.'

    b. (Net,) Ne   otpravila   / (Da,) otpravila.
       No   NEG send.PST.3SG.F / yes   send.PST.3SG.F
       '(No,) she didn't / (Yes,) she did.'

    c. (Də) (net,) ne   otpravila   ona   eë!
       PRT no   NEG send.PST.3SG.F SHE.NOM it.F.ACC
       '(No,) she DIDN'T send it!'

    d. V Moskvu {otpravila   / da}, a v Piter {ne   otpravila   / net}.
       to Moscow {send.PST.3SG.F / yes} but to Piter {NEG send.PST.3SG.F / no}
   'To Moscow yes (she did), to St. Petersburg, no (she didn't).'

Individual analyses and descriptions of some of these constructions already exist (Kazenin, 2006; Laleko, 2010; Gribanova, 2013b; Bailyn, 2014); is there any reason to think that they share some core properties which make them worth considering in light of each other? I argue that these constructions share both a common discourse strategy and a common underlying syntactic core. This shared backbone, once revealed, deepens our understanding of the interaction between head movement, ellipsis, and discourse. It allows us to understand the distributions of the various strategies in (1): although there is some overlap, these constructions cannot be used interchangeably, and not all of the logical possibilities predicted by the initial analysis are attested. Explaining *why* certain possibilities are not attested yields theoretical insights related to the status of head movement in the architecture of the grammar. My explanation for the absence of certain permutations, elaborated below, is predicated on the idea that the head movement involved in deriving (1) takes place in the narrow syntax.

On the pragmatic side, all of (1a–d) involve a second conversational turn indicating that a proposition raised by the previous discourse is either true or false, and in addition sometimes invoking a strong contrast between the expected response and the actual response (as in (1c,d)). On the syntactic side, I demonstrate that such expressions involve a non-canonical (e.g. discourse-configurational) word order, with the verb preceding the subject and object (VSO) — sometimes in combination with ellipsis. These orders have not received much attention in formal analyses of Russian, save for the occasional mention of VSO as rare, exclusively discourse-initial, used only in story-telling contexts, or otherwise degraded (Bailyn, 2004; Van Gelderen, 2003; Kallestinova, 2007). In fact, I demonstrate that VSO orders are robustly attested in conversational Russian and outside of the contexts just mentioned: they appear in the discourse environment associated with polarity focus.

The analysis begins by working from established ideas about the derivation of discourse-neutral, SVO orders in Russian, in which the subject moves to its surface position in [spec, TP] and the parts of the Russian verb head move for the purposes of morphophonological unification to a position just below T (Bailyn, 1995b,a; Fowler, 1994; Babko-Malaya, 2003; Gribanova, 2013b) — in this case, Neg. In a move that is similar in spirit, but not implementation, to the pioneering work of Brown and Franks (1995) and Brown (1999), I propose that features relating to negation and affirmation in Russian are housed in a high projection (Pol), which is connected by an instance of AGREE to a projection lower in the clause (Neg) that is responsible for the morphosyntactic expression of sentential negation. Taking the AGREE relation between Pol and Neg as a starting point, I argue that VSO orders are derived by movement of the Neg head

---

[2] For rhetorical convenience, I omit examples involving auxiliaries, putting off discussion of those for a separate paper.

to the Pol head, which bears focus features. Thus, there is an additional head movement step available to the derivation in cases of polarity focus, deriving VSO orders (2).

(2)
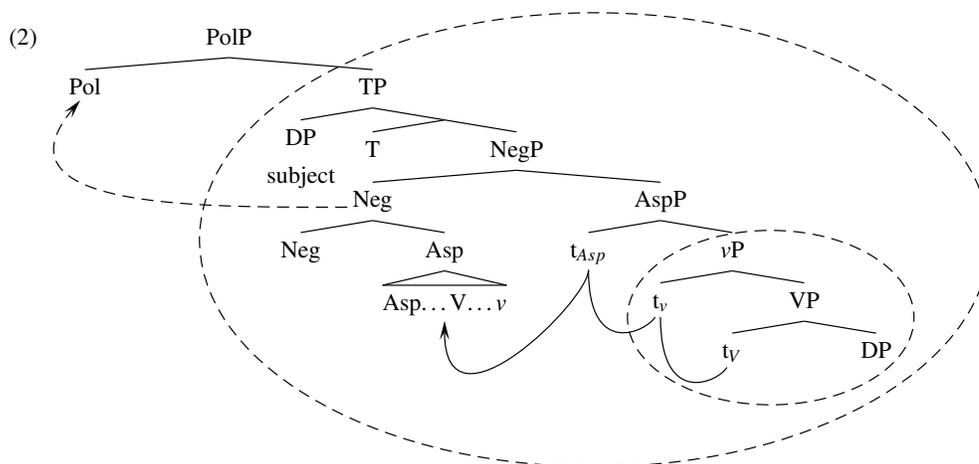
These head movement possibilities combine with at least two well-documented ellipsis possibilities, marked with dotted circles in (2): one involving ellipsis of vP (Gribanova, 2013b,a), and one involving ellipsis of TP (Kazenin 2006; see also Grebenyova 2006, 2007 for discussions of TP ellipsis in the context of sluicing). This yields an array of logically possible ellipsis and head movement combinations, in (3).

(3)   Russian word order and ellipsis possibilities

	TP ellipsis	vP ellipsis
Verbal complex in Neg (SVO)	A. Yes/No [$_{TP}$ ...]	B. SV [$_{vP}$...]
Verbal complex in Pol (VSO)	C. V[$_{TP}$...]	D. *VS [$_{vP}$...]

Cell A involves ellipsis of TP without head movement to Pol, resulting in a polarity particle as the expression of polarity (1a). Cell B involves verb movement only to the intermediate position (not to Pol) with ellipsis of a smaller constituent, vP – this is the possibility argued for by Gribanova (2013b), and to be discussed in §5. Cell C involves movement of the verb to Pol with TP ellipsis; this is exemplified by (1b) and the verbal version of (1d). Crucially, although cell D, in which the verb moves to Pol but the smaller constituent (vP) is targeted for ellipsis, is predicted as a logical possibility, it is not attested — an observation we will return to shortly. A representative (ungrammatical) example of this kind is in (4).

(4)   a. Evgenija otpravila   posylku   v Moskvu?
           Evgenija send.PST.3SG.F package.ACC to Moscow.LOC
           'Did Eugenia send the package to Moscow?'
       b. *Otpravila   ona.
           send.PST.3SG.F she.NOM

This state of affairs proves a useful testing ground for the open question of whether head movement is a syntactic mechanism. This debate is motivated in part by the observation that the formal properties of head movement — *e.g.* with respect to locality conditions, manner of Merge, and numerous other characteristics — differ in certain respects from those of phrasal movement (for useful overviews, see Matushansky 2006; Roberts 2010). This has led to numerous arguments that head movement is a PF phenomenon, with no narrow syntactic effects whatsoever (and consequently, no interpretive effects) (Schoorlemmer and Temmerman, 2012; Chomsky, 2000; Boeckx and Stjepanović, 2001; Harley, 2004).

Others claim that the movement is a narrow syntax phenomenon, but with debate about what this syntactic operation involves; the primary contending analyses involve true head movement (recently, Roberts 2010), remnant movement (Koopman and Szabolcsi, 2000), re-projection (Georgi and Müller, 2010), and phrasal movement, obscured by certain morphological operations (Matushansky, 2006; Harizanov, 2014b,a). Proponents of head movement as a syntactic phenomenon seek to provide evidence that it behaves in crucial ways like phrasal movement, for example by leaving traces (or lower copies) which, like traces of phrasal movement, can be variables which feed the interpretive interface. Arguments in favor of this position are difficult to come by, and often rely on scope or other judgments (for example, in Lechner 2007; Szabolcsi 2011) which are extremely subtle and therefore difficult to evaluate — see Roberts 2010; McCloskey 2012; Messick and Thoms 2016 and Hall 2015 for useful discussion. To the extent that we can locate more arguments in favor of this view, the case for head movement in the narrow syntax becomes substantially stronger.

The interaction of the various head movement and ellipsis possibilities noted above reveals a new argument for the narrow syntactic status of head movement. It so happens that the array of head movement and ellipsis possibilities in Russian is more restricted than one might imagine they should be: of the logical possibilities presented in (3), only A–C are attested, while D, in which the verb moves to Pol but a smaller constituent (*v*P) is elided, is not. One of the benefits of working out the various properties of the constructions in (1a–d) is that this ultimately yields a satisfying explanation for the impossibility of an option like D in a manner that bears directly on the question of where head movement (at least, head movement of this type) belongs. The explanation for the unavailability of the pattern in D is rooted, I will argue, in a constraint on ellipsis — *MaxElide*, first proposed by Merchant (2008) (circulated in 2001) — which forces ellipsis of a larger domain over a smaller one, where both are in principle available. The workings of the constraint are discussed in later sections; important for the present discussion is the observation that the effect of *MaxElide* emerges when a variable inside the ellipsis site is bound from outside that ellipsis site. That is, we can see this constraint force ellipsis of a larger domain over a smaller one, just in the case of phrasal (Ā-)movement out of the ellipsis site. What I argue here, in line with Hartman (2011), is that the effect of *MaxElide* also emerges in the case of head movement out of an ellipsis site.[3] This has the consequence that head movement must take place in the narrow syntax, because it, too, must leave behind a variable. It is the application of *MaxElide* that explains the absence of D as an attested pattern (3): in case polarity focus motivates the movement of the verb to Pol, the effect of head movement from within the ellipsis site will force the largest ellipsis domain possible, yielding the attested option in C of (3), rather than the prohibited one in D.

The paper is structured as follows. §2 establishes the syntactic foundation for the rest of the paper, elaborating a clausal syntax for the expression of polarity in Russian. §3 and §4 are devoted to treating each of the individual constructions represented in (1), including a discussion of their convergent and divergent features. §5 returns to the larger theoretical points at issue, exploring the question of what the possible ellipsis sites are — a point of some contention in the recent literature (Bailyn, 2014) — and the role of *MaxElide* in restricting the possibility space of head movement and ellipsis interactions.

## 2 Russian clause structure and polarity

In this section I outline an approach to the manifestation of polarity features in the clausal structure of Russian. Building on numerous proposals developed for other languages (Laka, 1990; Zanuttini, 1997; Progovac, 1994, 2005), I will defend the position that there are two distinct loci in the clausal spine

---

[3] See Messick and Thoms 2016 for an important discussion in which Hartman's (2011) data are re-considered in light of the possibility that *MaxElide* effects can be subsumed by more general constraints on ellipsis parallelism, which predict that certain MaxElide violations should be possible. Messick and Thoms 2016 demonstrate that these violations are countenanced in English; it would be interesting, to consider whether they are also countenanced in the parallel Russian cases — but this is a task that falls beyond the scope of the present paper.

associated with affirmation or negation, one high (Pol) and one low (Neg). I will show the high position to be the semantically contentful one; the low position realizes the morphosyntactic manifestation of clausal negation, but does this as a result of valuation of unvalued (and uninterpretable) polarity features.

Russian is typically treated as an SVO language both underlyingly and in its surface word order in discourse neutral clauses. Surface word order is derived by movement of the subject from a predicate internal position to a predicate external position, and movement of the verb to an intermediate position, below the surface subject but above its original position (Bailyn, 1995a,b; Babyonyshev, 1996; Slioussar, 2011; Bailyn, 2012, *inter alia*).[4] The typical derivation of a Russian clause, then, is taken to involve head movement in which heads adjoin to higher, c-commanding heads, presumably for reasons associated with the need for morphophonological unification (see Fowler 1994; Svenonius 2004; Gribanova 2013b for accounts of this type).

It is also relatively uncontroversial to assume that sentential negation, realized uniformly as a proclitic on the verb, is realized as a head in the clausal spine, though its location varies slightly depending on the account (compare Harves 2002; Abels 2005; Brown 1999; Brown and Franks 1995). In a fairly straightforward way, these two lines of argumentation can be unified for greater empirical coverage, such that the verb moves to the syntactic projection of negation, slightly higher than claimed in *e.g.* Bailyn's original proposals.

(5)
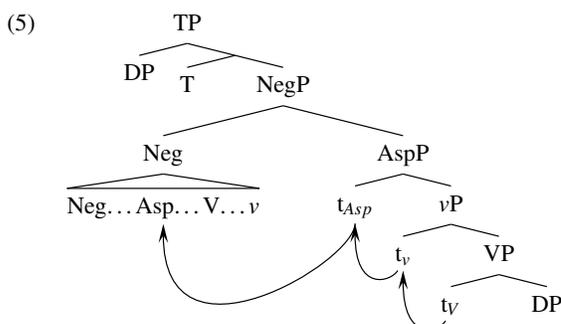
But this initial picture yields a number of puzzles that lead to a certain degree of dissatisfaction. There are several reasons to believe that there are two clausal positions associated with polarity, rather than one. The most straightforward evidence comes from observations about standard word order in Russian, which is SVO, and contrastive polarity ellipsis (6).
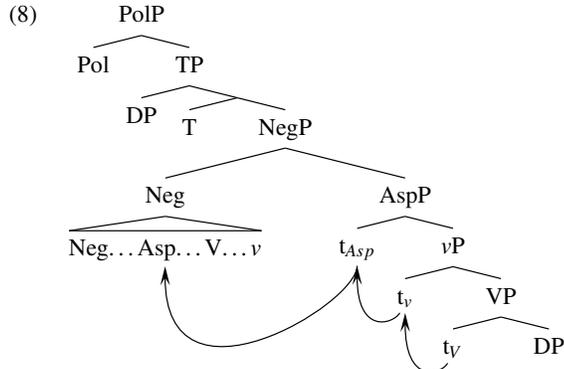
(6) Mašu   ona   vstretila,   a Pašu   net (*ona).
     Masha.ACC she.NOM met.PST.SG.F but Pasha.ACC not (*she.NOM)
     'Masha she met, but Pasha (she) didn't (meet).'

The consensus is that contrastive polarity ellipsis involves ellipsis of TP (Kazenin, 2006; Gribanova, 2013a); subjects are not permitted after the polarity particle, and neither is other clause-internal material (see §4.1)). The expression of such polarity particles so high in the clause forces us to assume the presence of a position capable of hosting polarity features — which we will call Pol — just above TP. For word order reasons, this position must be distinct from the canonical morphosyntactic expression of negation in Russian, which always appears proclitic to the verb, and below the subject.

(7) Maša ne vstretila menja.
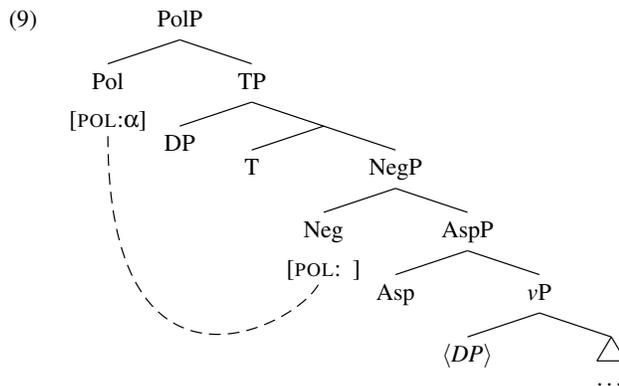   Masha NEG met.PST.F me.ACC
     'Masha didn't meet me.'

---

[4] An exception to this general line of thinking is the proposal in Tracy King's (1995) dissertation, which argues for movement of the verb to T and subsequent movement of the subject to a higher topic position. See also §3.2 for a discussion of the possibility that the subject may remain *in situ* in some instances.

These two basic facts suggest a structure like the one below, with Neg as the host of morphosyntactic negation and Pol as the host of the polarity particle (and, I will claim later, of the moved verb in VSO configurations).

(8)

```
                    PolP
                   /    \
                 Pol     TP
                        /  \
                      DP    \
                         T   NegP
                            /    \
                          Neg     AspP
                         /│\     /    \
              Neg...Asp...V...v  t_Asp  vP
                                       /  \
                                      t_v  VP
                                          /  \
                                        t_V   DP
```

If there are two positions associated with polarity, which of them hosts the semantically contentful features associated with affirmation and/or negation? I will argue that these features are located high in the structure, above the location of the structural subject ([spec, TP]) and distinct from lower morphosyntactic expressions of negation (Neg). I will further claim that the high and low positions are linked by an instance of AGREE, as in (9).[5]

(9)

```
                      PolP
                     /    \
                   Pol     TP
                 [POL:α]   /  \
                         DP    \
                            T   NegP
                               /    \
                             Neg     AspP
                           [POL: ]  /    \
                                  Asp     vP
                                         /  \
                                      ⟨DP⟩   △
                                              ...
```
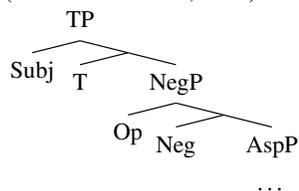
Below, I review and add to the evidence for this separation, advocating for the structure in (8,9) over earlier proposals — similar in intuition but different in structural implementation — by Brown and Franks (1995).

The idea that the morphosyntactic expression of negation and the semantic contribution of polarity features are structurally distinct was first introduced by Brown and Franks (1995), who propose that there is a semantically contentful Operator in the specifier position of a Neg head; the Neg head, in turn, is responsible for the morphosyntactic realization of negation.

---

[5] This kind of analysis requires reference to upward valuation in AGREE. This is a controversial move, insomuch as it is associated with theoretical ramifications and empirical predictions that are the subject, currently, of some intensive investigation (see Preminger and Polinsky 2015; Bjorkman and Zeijlstra 2014). The evidence for the use of upward valuation in this particular case seems quite strong, and it is difficult to think of ways in which incorrect predictions would arise for Russian if upward AGREE were made available. This is, however, a move worthy of further investigation beyond the confines of this paper.

(10) (Brown and Franks, 1995)

```
            TP
         ┌──┴──┐
       Subj    ┌──┴──┐
              T    NegP
                 ┌──┴──┐
                Op    ┌──┴──┐
                    Neg    AspP
                            ⋮
```

Brown and Franks (1995) were led to the conclusion that morphosyntactic expression of negation and polarity features should be syntactically distinct by evidence from Russian so-called *expletive negation*. These are instances of morphosyntactic negation which do not have the effect of contributing negative force, found also in German (Krifka, 2011), Hungarian (Piñón, 1991), Italian (Tovena, 1995), and Serbo-Croatian (Milićević, 2006), among other languages. In Russian, so-called expletive negation appears in a number of environments, including certain temporal adjunct clauses, certain subjunctive clauses, and crucially for the current discussion, polar questions.

(11) a. Ne čitali (li) vy ètu knigu?
NEG read.PST.PL (Q) you.PL this.ACC book.ACC

'Have you read this book?' POLAR QUESTIONS

b. Poka ty ne pročtёs′ ètu knigu…
until you NEG read.FUT.2SG this.ACC book.ACC

'Until you read this book...' 'UNTIL' ADJUNCT CLAUSES

c. Ja bojus′, kak by on ne upal.
I fear.1SG.REFL how SUBJ he NEG fell.PST.M.SG

'I am afraid he might fall.' CERTAIN SUBJUNCTIVE CLAUSES

For the moment, we will make the assumption that it is correct to think of the expletive negation as lexically distinct from canonical negation. On this view, the relation between the morphosyntactic exponent of negation (*ne*) and the semantically contentful features associated with logical negation is not isomorphic. This is implemented for Brown and Franks (1995) as in (10), with the Operator contributing negative force and the head Neg serving as the locus of the morphosyntactic expression of negation (with or without accompanying negative force).

The original motivating evidence for this distinction came, in Brown and Franks 1995 and later Brown 1999, from two grammatical phenomena — *n*-words and Genitive of Negation — which require licensing by negation, but which behave differently when it comes to expletive negation. In brief, Russian *n*-words are decomposable into a negative element, *ni-* and a *wh*-stem. They require semantically contentful clausemate negation for licensing (12) — expletive negation cannot license *n*-words (13).

(12) a. Nikto ne čital ètu knigu.
no.one NEG read.PST.SG.M this.ACC book.ACC

'No one read this book.'

b. *Nikto čital ètu knigu.
no.one read.PST.SG.M this.ACC book.ACC

(13) a. Ja bojus′, kak by *nikto/on ne upal.
I fear.1SG.REFL how SUBJ no.one/he NEG fell.PST.M.SG

'I am afraid he might fall.'

b. Poka *nikto/on ne rešit vsex zadač, ne pojdem domoj.
Until *no.one/he NEG solve.3SG.FUT all.GEN problems.GEN NEG go.1PL.FUT home.LOC

'Until he solves all the problems, we won't go home.'

    c. Ne   čital   (li) *nikto/on   ètu   knigu?
         NEG read.PST.SG.M (Q) *no.one/he this.ACC book.ACC
         'Have you read this book?'

By contrast, there is another grammatical phenomenon that depends on the presence of negation for licensing, but which behaves crucially differently with respect to expletive negation in Russian. Genitive case is licensed under negation on non-referential internal arguments that are not already obliquely case-marked — this includes surface objects (14a) and subjects of passives (14c) and unaccusatives (14b).

(14) a. Ja ne   videl ètix   fil′mov.
         I   NEG saw these.GEN movies.GEN
         'I didn't see these movies.'
    b. Otveta   ne   prišlo.
         answer.GEN NEG come.PST.3SG.N
         'The answer didn't come.'
    c. Ol'gi   v zerkale vidno ne   bylo...
         Olga.GEN in mirror visible NEG was...
         'Olga wasn't visible in the mirror...'   (Aksenov 1994, via Brown 1999)

The striking observation made by Brown and Franks (1995) is that unlike *n*-words, the Genitive of Negation can be licensed both by expletive and contentful negation:
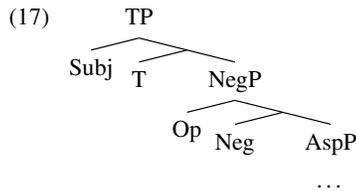
(15) Poka *nikto/on ne   rešit   vsex   zadač,   ne pojdem   domoj.
      Until no.one/he NEG solve.3SG.FUT all.GEN problems.GEN NEG go.1SG.FUT home.LOC
      'Until he solves all the problems, we won't go home.'

In other words, the morphosyntactic expression of negation alone (i.e. expletive negation) is not sufficient for licensing *n*-words, but it does play a relevant role in the grammar, because it licenses Genitive of Negation.

    I follow Brown and Franks (1995) in taking this contrast as evidence of the separability of negative force from its morphosyntactic expression. It is important to note, though, that some of the observations we have already made are not consistent with the structure proposed by Brown and Franks (1995), in (10). The most obvious objection is that there is no place in this structure for polarity particles *da/net*. But a more important objection concerns the position of subject *n*-words with respect to negation, a problem Brown and Franks (1995) themselves note. The problem is that *n*-words are taken to be licensed structurally, via c-command — they note, for example, that English Negative Polarity Items in subject position are licensed only if negation has raised along with the verb to C:

(16) a. *Anyone didn't read *War and Peace*.
      b. Didn't anyone read *War and Peace*?

Why, then, are subject *n*-words, usually taken to be in [spec T], licensed by semantically contentful negation in Russian? The structure in (10), repeated in (17), would not provide the right c-command configuration for this licensing:

(17)
```
           TP
        ___/\___
      Subj   _____
            T    NegP
               __/\__
              Op  Neg  AspP
                       ...
```
(Brown and Franks, 1995)

Brown and Franks' solution involves positing that the movement of the subject from a *v*P-internal position to [spec, T] (or some other higher position) is an A-bar movement, subject to reconstruction to the position of initial merge, within the scope of the negative Operator. There are two troubling aspects to this move. First, canonical, nominative subjects in Russian have been shown extensively to have all the properties of A-moved syntactic elements (Bailyn, 2004; Slioussar, 2011; Bailyn, 2012, *inter alia*). Second, there is evidence that Russian moved subjects do not reconstruct: if they did, we would expect that embedded negation could license a raised subject *n*-word, which is not possible.[6]

(19) *Nikto dolžen   __ ne __ čitat′ ètu   knigu.
     no.one ought.PST.M __ NEG __ read.INF this.ACC book.ACC

The option presented in (9), repeated here, avoids these difficulties, since there are two positions for the expression of information associated with polarity. This straightforwardly accommodates the observation that *n*-words are licensed in subject position, without requiring an account that references A-bar movement and subsequent reconstruction of the subject.

(20)
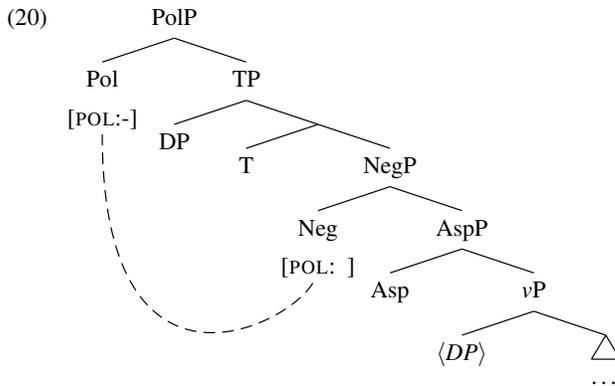
The higher position hosts the semantically contentful features, while the lower position bears the exponent of whatever features come to be in Neg once AGREE has applied. I assume that positive valued polarity features on Neg receive a zero exponent, while valued negative features on Neg are realized as the clitic *ne*.

It is important to note that Abels (2005) has argued against Brown and Franks' (1995) approach, proposing a syntax for polarity that differs significantly from what is presented here. Abels argues that the apparent lack of negative force in examples with so-called expletive negation arises from the raising of negation (either overtly or at LF) to a high position from which it cannot, for example, license *n*-words. This is broadly in line with numerous investigations into the semantics of of expletive negation in temporal clauses (Krifka, 2011; Piñón, 1991; Tovena, 1995) in which its 'non-negative' meaning is derived from the interaction of contentful, canonical negation with the semantics of the temporal clause. It would take us too far off course to provide a detailed comparison of this approach with the one outlined here. There is, however, an initial argument from ellipsis in favor of the latter position. Consider once again contrastive polarity ellipsis, in which TP is elided, and what is stranded before the ellipsis site is a polarity particle.

---

[6] I assume here that predicates like solžen and možet are raising predicates, although they could also involve restructuring. In either case it is important to note that there are acceptable instances of two negations, one in the higher and one in the lower clauses. If negation appears in the higher clause, the *n*-word is licensed:

(18)   Nikto ne možet ne   est′.
     no.one NEG can   NEG eat.INF
     'No one can not eat.'

(21) Evgenija otpravila   posylku   v Moskvu?
      Evgenija send.PST.3SG.F package.ACC to Moscow.LOC
      'Did Eugenia send the package to Moscow?'

      V Moskvu net, a   v Piter, da.
      to Moscow no   but to Piter yes
      'To Moscow, no, but to St. Petersburg, yes.'

The response in (21) consists of two conjuncts, linked by the contrastive coordinator *a*. The contrastive nature of this construction requires that the polarity of the two conjuncts on either side of *a* should contrast in value. Evidence that there is some syntactic structure involved in the ellipsis site comes from the observation that a constituent which has been extracted from inside the ellipsis site appears to the left of the polarity particle. Notice now that there is a mismatch in polarity between the antecedent (which has positive polarity) and the elided constituent in the first part of the response (which has negative polarity). If it is TP that is elided, this means that Neg will also be elided with it.

I have argued above that Pol is the head hosting valued, interpretable features, and that those features may come to be expressed on Neg through an instance of AGREE. Consider what it would mean if this were not the case, and — in the spirit of Abels (2005) — the lower head (Neg) were to enter the derivation with valued, interpretable features. In cases like (21), this would result in a mismatch in polarity features between the Neg head of the antecedent and the Neg head inside the ellipsis site. This state of affairs constitutes a violation of prominent formulations of the condition on identity in ellipsis, in which the features on a head inside the ellipsis site much match the features on the corresponding head in the antecedent (Merchant, 2013b). This difficulty is avoided on the account promoted here, in which it is the Pol head that hosts polarity features, while Neg has only unvalued polarity features which, according to numerous prominent discussions (Chung, 2013; Merchant, 2013a), are ignored for the purposes of the calculation of identity in ellipsis.[7]

Returning to the broader point, I have argued here that there are two positions associated with polarity in Russian: Pol and Neg. Such a structure provides a position — for both the polarity particles and sentential negation — which gets the word order facts correct; and if the higher Pol head is responsible for introducing features associated with negative force, then we have a natural explanation for the licensing of *n*-word subjects in their surface (not reconstructed) position.

3 Contrastive polarity focus and VSO

Having established the clause structural manifestation of polarity in discourse-neutral environments, we are now equipped to consider cases in which the polarity is focused. As will become evident in the course of our exploration, the polarity focus (contrastive, in this case), has grammatical reflexes, resulting in VSO order. It is important to note that VSO order in Russian has historically been under-described, and its relevance to the overall syntax of the language minimized. This is because it has long been considered unacceptable except for in a very restricted set of contexts (Bailyn, 2004; King, 1995; Van Gelderen, 2003; Kallestinova, 2007), namely story-telling or discourse-initial utterances, of the type in (22).[8]

---

[7] A reviewer has pointed out that the argument loses its force if the example involves a raised (negated) verb, as in (1d). This is because even if Neg carries valued features (contra the current proposal), it will also bear focus and will raise out of the ellipsis site. Focused constituents famously do not count for the purposes of identity conditions on ellipsis; see Merchant (2001). In such a configuration, even if Neg is what bears valued polarity features, it would also bear focus, and would therefore not be subject to the identity condition on ellipsis for independent reasons. The relevance of examples like (21), then, is that it is quite obviously the polarity particle that bears any focus, rather than the sentential negation itself (on either of the approaches entertained here).

[8] A notable exception is Slioussar 2011, where VS orders are discussed as being fairly commonplace. That work does not, however, consider cases of the type discussed here (involving polarity focus).

(22) Posadil   ded   repku.
plant.PST.3SG.M grandpa turnip.ACC
'Grandpa planted a turnip.'   (first line of a famous folk tale)

Although it is correct that VSO orders occur story-initially, their distribution is far wider than this, especially in colloquial speech. This is because they also occur in contexts where polarity focus is at play; we start, in this section, by discussing the most clear case of this kind (because it involves no ellipsis), which I call CONTRASTIVE POLARITY FOCUS.[9]

(23) Ja v vojnu pil   tože kakoj-to. V Germanii. Klopami   paxnet.
I in war   drank also some-kind in Germany bedbugs.INSTR.PL smells.3SG
'I also drank some kind during the war. In Germany. It smells of bedbugs.'

Da ne paxnet   on   klopami!
Də NEG smell.3SG it.NOM bedbugs.INSTR
'No, it doesn't smell of bedbugs!' ('it' = cognac)[10]

(24) [*Context:* discussion of whether it is worth it to go see an apartment][11]

"How's that!" Gena grabbed him by the sleeve. "Are you serious? It is certainly necessary, certainly! Will you check the joists? What about the floor plan?"

[*Implicit proposition:* you haven't seen the apartment (or the joists, or the floor plan)]

Da videl   ja, videl   ja perekrytija!
Də see.PST.SG.M I   see.PST.SG.M I joist.PL
'I saw the joists, I saw them!

(25) [*Context:* Two administrators are trying to elicit information from the speaker about a colleague that had been exiled. The speaker claims that the offense was minor.][12]

"Well, that's not important, not important!" Ajupova triumphantly sang and waved at me. "Since they exiled him..."

[*Implicit proposition*: the speaker is going to participate in informing on this colleague.]

Da ne govorju ja s   vami!
Də NEG talk.1SG I with you.INSTR.PL
'I'm not talking to you!'

... I yelled for the whole editorial office to hear and pushed the empty chair so hard that it fell.

(26) [*Context:* the speaker is being convinced to go to the university instead of running away from home.][13]

---

[9] Many of the examples cited in this and later sections have been culled from the Russian National Corpus, which contains natural language texts drawn from newspapers and various forms of spontaneous speech (interviews, etc.). The constructions under analysis here are very colloquial and therefore appear primarily in examples representing live speech, either in fictional texts, blogs, or interviews.

[10] Vasilij Šukšin. *Kalina krasnaja*, 1973.

[11] Andrej Volos. *Nedvižimost'* (2000) // "Novyj Mir", 2001 (RNC)

[12] Ju. O. Dombrovskij, *Xranitel' drevnostej*, čast' 1, 1964 (RNC)

[13] Vasilij Aksenov. *Zvezdnyj bilet.* // "Junost'", 1961 (RNC)

'Da ne xoču   ja ètogo!' otčajanno kričit Dimka.
Də NEG want.1SG I this.GEN despairingly cry.3SG Dimka

"'But I don't want this!' cries Dima in despair.'

All these examples contain the unstressed discourse particle *da*, rendered in the gloss line as Də to distinguish it from the stressed affirmative polarity particle.[14] Although this discourse particle appears in every example, it is in fact optional, and serves as an explicit marker of reversal. This is because the construction in question involves a contrast with the polarity of a proposition from previous utterances or discourse context.[15]

What are the syntactic properties of such examples? In every case, a (negated) verb appears initially, and the subject and object must follow it, in that order (VOS order is not permitted). I take the verb's appearance to the left of the subject as an initial indication that it has moved to a projection above T, which is the commonly assumed surface position of the subject. A syntactic structure for this configuration now flows naturally from the clause structure already defended in the previous section. All that is needed is the addition of one step: on top of the AGREE relation established between Pol and Neg as part of a canonical derivation, there should be movement, parasitic on that relation, of Neg to Pol. This amounts to asserting that there are at least two possible feature structures that can be associated with a Pol head, as in (27), with the head in (27b) carrying two discourse features in addition to an EPP subfeature associated with the polarity value itself. This EPP subfeature forces movement of the head that has agreed with Pol — in our case, Neg.

(27) a. $\left[\text{POL}:\alpha\right] \rightarrow$ verbal complex stays in Neg

   b. $\begin{bmatrix} \text{POL}:\alpha, \text{EPP} \\ \text{POLFOC} \\ \text{REVERSE} \end{bmatrix} \rightarrow$ movement of verbal complex to Pol + contrastive polarity focus

I have made the move here of separating out polarity focus (POLFOC) from the [REVERSE] feature (Farkas and Bruce, 2010; Farkas, 2010), which I take to contribute the contradictory flavor of these expressions. As I will demonstrate in §4.2, the POLFOC feature is used in other polarity focus contexts, separately from any reverse function; and the Də particle is used to express reversal in responses to polar questions, since the Russian polarity particle *da* cannot independently express reversal.

Introduction of the Pol head associated with the featural specification in (27b) will have the effect of attracting Neg to the Pol position, resulting in an instance of discourse-sensitive head movement. At the point in the derivation when the AGREE relation is formed between Pol and Neg, Neg is already part of a complex head. In head moving to Pol, it will thus pied-pipe the rest of the complex verb along, resulting in the pronunciation of the full verbal complex in initial position.[16]

---

[14] Examples from the corpus (RNC) all contain Də, because it was easier to search for such examples. But all the corpus examples listed here would also be felicitous without the particle.

[15] The discourse particle Də has numerous functions, some of which are described in Kolesnikova 2014. In the contexts of importance to us, it seems to serve as a marker of contrast and reversal; I leave further discussion of its other meanings for another time.

[16] For notational convenience I take the movement to be from Neg to Pol directly, though locality conditions may dictate that the head also moves through T. I have no evidence bearing on this question, and what follows is consistent with either position.

(28)
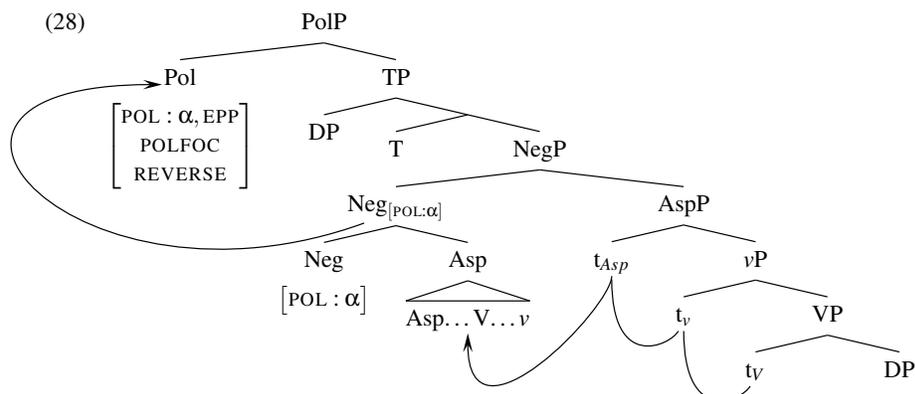
There are a few further issues, discussion of which should help secure the viability of (28). First, there is the question of whether these kinds of constructions may be better analyzed via remnant movement, rather than head movement (§3.1). Second, the reasoning that led to (28) revolves in part around the assumption that the surface position of the subject is [spec, T]. There is a plausible alternative analysis of VSO orders, proposed for Russian by King (1995), in which the verb raises to Neg (but no higher), while the subject stays in its lower base-generated position (if, for example, it is backgrounded or not a topic in the relevant respect). I argue against this position in §3.2.

3.1 Russian VSO is not derived by remnant movement

There are two arguments that the pattern of verb fronting we see in examples (23)–(26) is not an instance of remnant movement, which in this case would presumably involve movement of any internal arguments of the verb out of the NegP, and movement of NegP to [spec, Pol]. The first argument comes from the observation that real phrasal movement of VP-sized constituents (presumably, the size of NegP, in a more articulated syntax) may cross clause boundaries in Russian (29a), while verbal complexes moving in the absence of the accompanying internal arguments cannot (29b,c).[17]

(29) a. Čitat′ ètu knigu, ja znaju (čto) on točno ne budet.
read.INF this.ACC book.ACC I know.1SG (that) he definitely NEG will.3SG

'As for reading this book, I know he definitely won't.'

b. *Čitat′ ja znaju, čto on točno ne budet ètu knigu.
read.INF I know.1SG that he definitely NEG will.3SG this.ACC book.ACC

c. *Ne budet ja znaju, čto on točno čitat′ ètu knigu.
NEG will.3SG I know.1SG that he definitely read.INF this.ACC book.ACC

The second argument comes from the observation that true phrasal fronting apparently cannot target constituents large enough to include the future auxiliary:

(30) a. Maša točno ne budet čitat′ ètu knigu.
Masha definitely NEG will.3SG read.INF this.ACC book.ACC

'Masha definitely will not read this book.'

b. *(Da) točno ne budet čitat′ ètu knigu Maša (točno)!
(Də) definitely NEG will.3SG read.INF this.ACC book.ACC Masha (definitely)

---

[17] A reviewer notes that example (29a) seems suboptimal to him/her and also two other native speakers consulted. Unsurprisingly, (s)he also noted that omitting the complementizer leads to improvement. I consulted with several native speakers who found both variants completely acceptable, but nonetheless the variability should be noted here, whatever its source.

But VSO orders can involve fronted auxiliaries; moreover, the main verb in such cases appears to stay in its intermediate position, again suggesting that head movement is involved here.

(31) (Da) ne budet Maša čitat′ ètu knigu!
      (Də) NEG will.3SG Masha read.INF this.ACC book.ACC
      'But Masha won't read this book!'

I take these arguments to support the claim that what is involved in the cases of interest is head movement, rather than remnant movement: VSO orders do not show the trademark properties associated with movement of VP-sized constituents.

3.2 The subject raises to [spec, T]

I have sketched an analysis above which takes the derivation of VSO orders in contrastive polarity focus contexts to involve movement of the verb to a high position, above [spec, T]. There is an alternative analysis, however: it is possible that the subject never moves to [spec, T], remaining low, with the verb moving only as far as Neg (below T). However, this analysis would predict a number of word orders which are not grammatical. The traditional tests for verb movement (Pollock, 1989), as applied to Russian by Bailyn (1995a), demonstrate that the landing site is below T: low adverbs and floating quantifiers cannot intervene between the verb and object.

(32) Ivan často ubiraet (*často) komnatu.
      Ivan.NOM often clean.3SG (*often) room.ACC
      'Ivan often cleans his room.'

(33) My vse čitaem (*vse) gazetu.
      we.NOM all read.1PL (*all) newspaper.ACC
      'We all read the newspaper.'

If the verb had stayed in this position in VSO orders, we expect that in such cases there could be an adverb preceding the verb; but such utterances are ungrammatical, as (35) demonstrates.[18]

(35) a.[?*](Da) často ne ubiraet on komnatu!
          (Də) often NEG clean.3SG he room.ACC
          intended: 'But he doesn't often clean his room!'
      b.[?*](Da) bystro ušël on iz kvartiry!
          (Də) quickly leave.PST.3SG.M he from apartment.GEN
          intended: 'But he left his apartment quickly!'

---

[18] As a reviewer points out, the situation is not as simple when it comes to responses to polar questions, discussed in more detail in §4.2:

(34) Ivan často posylaet pis′ma v Moskvu i banderoli v Piter?
      Ivan often by mail send.3SG.PRS letters to Moscow and packages to Piter
      'Does Ivan often send letters by mail to Moscow and packages to St. Petersburg?'
      'Is it often that Ivan sends letters by mail to Moscow and packages to St. Petersburg?'

      (Da,) često posylaet.
      (yes) often send.PRS.3SG

The response in (34) is more acceptable than the examples in (35), where the adverb is also placed before the verb in VSO configurations. The discourse function of utterances like (35) is also distinct from that of plain polar questions, in a way that may help us understand the contrast between (34) and (35). A plain polar question involves focus on the polarity, either via word order — fronting of the verb and the appearance of a second position polar question particle, *li* — or via intonation (a rise on the verb in its canonical position). There are also ways of focusing constituents in polar questions, yielding a cleft-like interpretation; this is in fact the likeliest interpretation of the question in (35). The response, therefore, is likely to involve a focusing on the adverb and therefore also fronting of that adverb to above the Pol position.

The ungrammaticality of the word orders in (35) — with VP-level adverbs preceding the verb, which itself precedes the subject — indicates that an analysis in which the verb stays in its intermediate landing site (Neg, on the view outlined here) and the subject stays low, is untenable.

There is a further possibility that the verb does indeed move to a high position (Pol), but the subject still remains low, without moving to [spec, TP]. This possibility also predicts word orders that are unavailable: once again turning to VP-level adverbs, we expect them to appear just before the subject in VSO orders, counter to fact.

(36) a.$^{?*}$ (Da) ne   ubiraet   bystro   on komnatu!
         (Də) NEG clean.3SG quickly he room.ACC
         intended: 'But he doesn't clean his room quickly!'
    b.$^{?*}$ (Da) ušël   srazu   on iz   kvartiry!
         (Də) leave.PST.3SG.M right-away he from apartment.GEN
         intended: 'But he left his apartment right away!'

In summary, I have developed an analysis of VSO clauses that captures their discourse function — emphatic contrastive polarity focus — and connects this discourse function to the featural encoding of the Pol head (which also triggers head movement). I have also demonstrated in the last two subsections that these cases cannot be viewed as instances of remnant movement, nor can they be understood as involving the subject staying in its initial Merge position ([spec, *v*P]).

4 TP ellipsis: two instantiations

Having established that VSO orders involve movement of the verb to Pol, I turn my attention in the following two subsections to cases in which this type of discourse-sensitive verb movement co-occurs with ellipsis. Previous claims from Kazenin 2006 and Gribanova 2013b,a lead us to believe that there are at least two sizes of potential ellipsis domain: TP and *v*P.[19] In conjunction with the two head movement possibilities outlined above, this yields four logical possibilities, of which I will argue three are attested (examples corresponding to these possibilities are in (1,4)).

(37) Russian word order and ellipsis possibilities

	TP ellipsis	*v*P ellipsis
Verbal complex in Neg (SVO)	A. **Yes/No** [$_{TP}$ …]	B. SV [$_{vP}$ …]
Verbal complex in Pol (VSO)	C. **V**[$_{TP}$ …]	D. *VS [$_{vP}$ …]

We focus in this section on what happens in TP ellipsis, both in cases that involve verb movement to Pol (C in (37)), and in cases where the verb stays in Neg (A in (37)).

4.1 Contrastive polarity ellipsis

The first construction we will consider also involves both polarity focus and discourse contrast, just as in the VSO orders of the previous section. This construction comes in two flavors: polarity may either be expressed by the stranded verb (38a,b) or by a discourse particle (38c,d).

(38) Evgenija otpravila   posylku   v Moskvu?
    Evgenija send.PST.SG.F package.ACC to Moscow.LOC
    'Did Eugenia send the package to Moscow?'

---

[19] For the purposes of clarity in the discussion that follows, I ignore the type of ellipsis that strands an auxiliary, eliding a complement that is probably the size of AspP.

    a.   V Moskvu otpravila,   a v Piter ne   otpravila.
         to Moscow send.PST.SG.F but to Piter NEG send.PST.SG.F
         'To Moscow yes she did, to St. Petersburg, she didn't.'

    b.   Evgenija otpravila,   a Vanja ne   otpravil.
         Eugenia send.PST.SG.F but Vanja NEG send.PST.SG.M
         'Eugenia did, but Vanja didn't.'

    c.   V Moskvu da, a   v Piter net.
         to Moscow yes but to Piter no
         'To Moscow, yes, to St. Petersburg, no.'

    d.   Evgenija da, a   Vanja net.
         Eugenia yes but Vanja no
         'Eugenia yes, but Vanja no.'

The type that strands discourse particles has been analyzed by Kazenin (2006) as involving expression of polarity features in Pol (his Σ) and TP ellipsis. In such constructions, there are two remnants of the ellipsis: the polarity particle and a phrase preceding it. The construction involves obligatory contrast, in two senses. First, the phrasal remnant is always interpreted as a contrastive topic, whatever its grammatical function; presentational or backgrounded readings of these phrasal remnants are not possible. Kazenin's (2006) argument is that these phrases are extracted to the left periphery from inside the elided constituent, consistent with the high degree of discourse configurationally of the language. Second, the responses in (38) have continuations ('but Vasja yes', etc.) that involve a contrast in the polarity of the conjuncts on either side of the contrastive coordinator *a*. Without these continuations, the only possible interpretation is one in which there is an implied continuation of the very same sort. This kind of construction will not be licensed in discourse contexts involving no contrast (39).[20]

(39)   Maša otpravila   pis'ma v Moskvu i   v Piter?
        Masha sent.PST.SG.F letters to Moscow and to Piter
        'Did Masha send letters to Moscow and to St. Petersburg?'

      *V Moskvu da, i   v Piter (tože) da.
       To Moscow yes and to Piter (also) yes

Before we pursue this line of inquiry any further, it is important to establish that both variants of the construction — those involving a stranded particle and those involving a stranded verb — are genuine instances of ellipsis. For cases involving polarity particles, Kazenin (2006) provides two pieces of evidence in favor of an ellipsis account. First, the phrasal remnant in the response appears to have been extracted from inside the ellipsis domain, as evidence by a case connectivity effect: we always find case marking on the remnant that matches whatever it would have been assigned in its pre-movement position. This is true also of the verb-stranding cases discussed further below. Second, Kazenin points out that these constructions are subject to the Backward Anaphora Constraint (Langacker, 1966) which is known to apply in some cases of ellipsis (Schachter, 1977).

(40) **Backward Anaphora Constraint**
     Anaphoric elements precede, but may not simultaneously c-command, their antecedents.

This is true not just in cases of particle stranding, as noted by Kazenin, but also with verb-stranding:

(41) a. Do Koli došlo   moë pis'mo. Poètomu stranno, čto do Peti ešče {net / ne   došlo}.
        To Kolja reached my letter.   Therefore strange that to Petja still {no / NEG reached}
        "My letter reached Kolja. So it's strange, that it has not yet reached Petja.'

---

[20] The verbal version of the response in (39) is permitted, but this instantiates a different strategy, namely VVPE with subject drop — see examples (61,62) in §5.

    b. *Do Peti {da / došlo}, poètomu stranno, čto do Koli ešče ne   došlo   moë pis′mo.
      To Peter yes / reached, therefore strange that to Kolja still NEG reached my   letter
      (Slightly modified from Kazenin 2006)

Further, both types can occur across discourses (38), and both types can be embedded (including inside islands)[21] (42).

(42) a. Do Koli došlo   tvoë pis′mo?
      To Kolja reached your letter?
      'Did your letter reach Kolja?'
      Ja uveren,   čto da / došlo.
      I   sure.M.SG that yes / reached
      'I'm sure that it did.'

It is especially important to go one step further and establish that the verb-stranding examples under discussion here involve actual ellipsis, rather than argument drop or NP/DP ellipsis, which are also prevalent in Russian (for at least subjects and objects). The availability of more than one mechanism for omitting similar (but not identical, I will claim) material makes the investigation of ellipsis a tricky matter: we must be sure that for any given example, we are analyzing a case of ellipsis rather than argument drop. In the case of subject drop, missing subjects can in theory always be either the result of argument drop or of ellipsis of a constituent large enough to encompass the structural subject (TP). We can get some useful information, however, from instances where the pronunciation of a subject is forbidden: this nearly certainly excludes the possibility of argument drop, which, although discourse-constrained, should in theory always be optional.[22] In the case of internal arguments, we have more options: some parts of Gribanova 2013b,a are dedicated to this point, though see Bailyn 2014; Erteschik-Shir et al. 2013 for counter-arguments. Gribanova (2013a) demonstrates that by making antecedents sufficiently complex, we can ensure that what we are looking at is a case of ellipsis of a fairly large constituent (at least VP-sized), rather than omission of independent arguments. One way to do this is to construct conjoined or disjoined VPs in the antecedent, which in Russian also coincides with the across-the-board movement of the verb.

(43) Kažetsja, čto Anya položila   ručku   na stol, **i** knigu   na stul.
     seems   that Anya put.PST.SG.F pen.ACC on table **and** book.ACC on chair
     'It seems that Anya put the pen on the table and the book on the chair.'

     Net, ne   položila.
     No, NEG put.PST.SG.F
     'No, she didn't put (the pen on the table and the book on the chair).'

(44) On ne   položil   **ni** ručku   na stol, **ni** knigu   na stul.
     he NEG put.PST.SG.M **neg** pen.ACC on table **neg** book.ACC on chair
     'He put neither the pen on the table nor the book on the chair.'

     Ty prav; ne   položil.
     you right NEG put.PST.SG.M
     'You're right; he didn't put (either the book on the table or the book on the chair.)'

---

[21] It is well known that indicative embedded clauses are islands in Russian (Comrie, 1973; Pesetsky, 1982).

[22] The obligatory absence of the pre-verbal argument in certain verb-stranding constructions was noted by Bailyn (2014), who argued that this constituted evidence against the VVPE approach to verb-stranding constructions, in which there is verb movement to Asp/Neg and ellipsis of vP (Gribanova, 2013b). Without getting into detail, Gribanova (2013a) pointed out that there may be other sources for this pattern. The current paper provides an explanation for this observation, which is that there are two head movement possibilities and (at least) two sizes of ellipsis domain; one of these possibilities (TP ellipsis) will elide the subject along with other TP-internal material. Since this particular strategy is employed under discourse conditions that involve polarity focus, we expect the pre-verbal subject to be banned just under those discourse conditions, but permitted in cases where polarity focus is absent. See the examples in §5.1 for evidence in favor of this perspective.

Since there is no reasonable way to omit the various sub-parts of the antecedent — including, importantly, the disjunction/coordination — by NP/PP ellipsis or argument drop alone, we conclude that the elided constituent must be at least large enough to contain both a direct and an indirect argument, as well as the verb itself (which has moved out). In what follows, we will be using antecedents of this very type in order to rule out the possibility of NP/PP ellipsis or argument drop.

Returning now to the main focus of this section, the evidence provided below further demonstrates that verb-stranding and polarity particle stranding in this construction share several important properties, not just in terms of their discourse function, as described above, but also in their syntactic configuration and restrictions. For example, nothing can come after the stranded particle or verb in contrastive polarity ellipsis, save for an entirely new clause. The ellipsis is obligatory, and the elided constituent is TP, as indicated by the unacceptability of the pronounced structural subject in (45).

(45) Maša včera otpravila pis'ma v Moskvu i banderol′ v Piter?
Masha yesterday send.PST.SG.F letters to Moscow and package to Piter
'Did Masha send the letters to Moscow and the package to St. Petersburg yesterday?'

   a. Včera da (*ona), a segodnja net (*ona).
Yesterday yes (*she) but today no (*she)
'Yesterday, yes, but today, no.'

   b. Včera otpravila (*ona), a segodnja ne otpravila (*ona).
Yesterday send.PST.3SG.F (*she) but today NEG send.PST.3SG.F (*she)
'Yesterday she did, but today, she didn't.'

There is yet another possibility to rule out in the verb-stranding cases: these could be instances of *v*P ellipsis in conjunction with movement of the verb just to Neg (not as high as Pol) and subject drop. However, if this were the case, we could expect the possible appearance of a pre-verbal subject (in [spec, TP], just above Neg). However, this is unacceptable, suggesting that the verb does move to a high position (Pol) and that the ellipsis is indeed TP-sized in verb-stranding constructions of this type.

(46) a. Maša včera otpravila pis′mo v Moskvu, i banderol′ v Piter?
Masha yesterday sent.PST.SG.F letter to Moscow and package to Piter
'Did Masha send the letter to Moscow, and the package to St. Petersburg yesterday?'

   b.?* Včera ona ne otpravila, a segodnja ona otpravila.
yesterday she NEG send.PST.SG.F but today she send.PST.SG.F

To summarize, the particle and the stranded verb in these constructions appear in the same syntactic environments and have the same discourse function. They both involve ellipsis of TP, suggesting that their position must be above TP. Further, they are in complementary distribution, as (47) demonstrates:
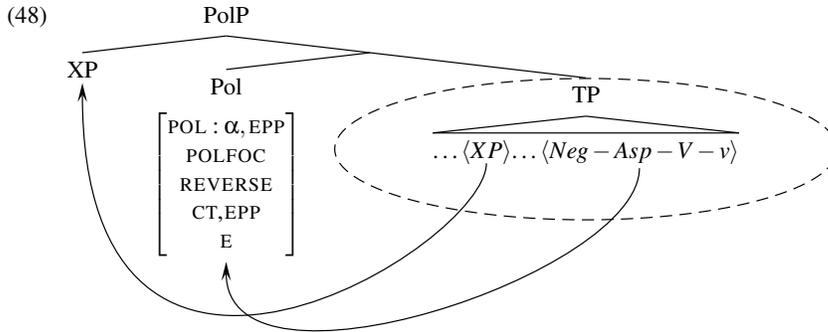
(47) a. Maša včera otpravila pis'ma v Moskvu i banderol′ v Piter?
Masha yesterday send.PST.SG.F letters to Moscow and package to Piter
'Did Masha send the letters to Moscow and the package to St. Petersburg yesterday?'

   b.?* Maša da, otpravila, a Petja net, ne otpravil.
Masha yes send.PST.SG.F but Peter no NEG send.PST.SG.M

If, as Kazenin (2006) hypothesizes, the particle in such constructions is the realization of Pol (his Σ), then it makes sense to think of the verb as raising to this position.[23] This move leverages a strategy we already need, as demonstrated by the discussion in §3, where VSO was derived in the same way. Further, it gives us a syntactic way to unify diverse but related constructions. The outcome is that the features of Pol may be realized either as a polarity particle, in which case the verb stays in its intermediate position (and is

---

[23] This idea is pre-figured in Kazenin 2006, where it is hypothesized that auxiliaries may also move to Σ under the right discourse conditions, leading to their ability to participate in the contrastive polarity ellipsis construction. The idea is not extended to lexical verbs, but the move seems a natural one in this context.

elided by TP ellipsis) (cell A), or by raising of the verbal complex to Pol, in which case the verb surfaces outside the TP ellipsis site (cell C).

Adopting this proposal, we can posit that contrastive polarity ellipsis involves the same operation as the contrastive polarity focus examples of the previous section (yielding VSO), but with two added components. First, this construction boasts a stranded phrasal remnant, interpreted as a contrastive topic; second, it involves obligatory ellipsis of TP. Both of these can be straightforwardly accommodated by positing a Pol head with a CT (contrastive topic) feature with the EPP subfeature, and Merchant's (2001) E-feature, which licenses ellipsis of its complement.

(48)

$$
\begin{array}{l}
\text{PolP} \\
\text{XP} \quad \text{Pol} \\
\left[\begin{array}{c} \text{POL} : \alpha, \text{EPP} \\ \text{POLFOC} \\ \text{REVERSE} \\ \text{CT,EPP} \\ \text{E} \end{array}\right] \quad
\begin{array}{l} \text{TP} \\ \dots \langle XP \rangle \dots \langle Neg - Asp - V - v \rangle \end{array}
\end{array}
$$

4.2 Elliptical responses to polar questions

A second context in which we find ellipsis of TP with stranding of either a discourse particle or a verb is that of responses to polar questions.

(49) Maša včera   otpravila   pis′mo v Moskvu, i   banderol′ v Piter?
     Masha yesterday sent.PST.SG.F letter to Moscow and package   to Piter
     'Did Masha send the letter to Moscow, and the package to St. Petersburg yesterday?'

  a. (Da), otpravila.
     Yes, send.PST.SG.F

     'Yes, she did.'

  b. (Net), ne   otpravila.
     No,   NEG   send.PST.SG.F
     'No, she didn't.'

  c. Da/net.
     yes/no
     'Yes/no.'

Unlike in the contrastive polarity ellipsis construction, there is no need for contrast in these constructions; a second difference is that the verb and the discourse particle can co-occur, though they require a major prosodic break between them. I take this last observation to indicate that cases of co-occurrence involve either a bi-clausal structure (with ellipsis in both clauses), realization of the polarity particle in a specifier position (Kramer and Rawlins, 2011; Merchant, 2013a, 2006), or the pronunciation of two separate subtrees standing in some kind of adjunction relation. I turn to the verbal cases first, arguing that they involve TP ellipsis and verb movement to Pol, as with contrastive polarity ellipsis. This is a common analysis for languages in which verbs are stranded as answers to polar questions, proposed for Irish (McCloskey, 2011, 2012), Hungarian (Lipták, 2012), Finnish (Holmberg, 2001), and English (Kramer and Rawlins, 2011; Holmberg, 2013).

Initial evidence for the view of verb-stranding responses to polar questions promoted here comes from the behavior of subjects in these constructions. If the verb really moves all the way to Pol in these cases, then what we expect is that pre-verbal subjects would be unacceptable in answers to polar questions. What we find, in (50), is that subject-verb utterances are significantly degraded when compared to the verb-only response to a polar question, for most of the speakers I consulted. Some subset of speakers permit subject-verb responses to polar questions; presumably, verb movement to Pol under polarity focus is not obligatory for such speakers. For related discussion, see §5.1.

(50) Maša včera   otpravila   pis′mo v Moskvu, i   telegrammu v Piter?
     Masha yesterday sent.PST.SG.F letter   to Moscow and telegram   to Piter
     'Did Masha send a letter to Moscow, and a telegram to St. Petersburg yesterday?'

  a. (Da), (#/?ona) otpravila   (*ona).
     Yes (#she)   send.PST.SG.F (*she)

     'Yes, she did.'
  b. (Net), (#/?ona) ne otpravila   (*ona).
     No   (#she)   NEG send.PST.SG.F (*she)
     'No, she didn't.'

Also shown in (50) is that post-verbal subjects are banned; this indicates that the ellipsis site is large enough to subsume the surface structure subject — i.e., that we are looking at a case of TP ellipsis. For the sake of comparison it is important to point out that the full version of the VSO response is licit in response to the question in (50), modulo the fact that the pragmatically preferred strategy is the elided one:[24]

(51) a. Maša včera   otpravila   pis′mo v Moskvu, i   telegrammu v Piter?
        Masha yesterday sent.PST.SG.F letter   to Moscow and telegram   to Piter
        'Did Masha send a letter to Moscow, and a telegram to St. Petersburg yesterday?'
     b. (Net), ne otpravila   ona včera   pis′mo v Moskvu, i   telegrammu v Piter.
        no   NEG sent.PST.SG.F she yesterday letter   to Moscow and telegram   to Piter
        'No, she didn't send a letter to Moscow and a telegram to St. Petersburg yesterday.'
     c. (Da), otpravila   ona včera   pis′mo v Moskvu, i   telegrammu v Piter.
        yes sent.PST.SG.F she yesterday letter   to Moscow and telegram   to Piter
        'Yes, she sent a letter to Moscow and a telegram to St. Petersburg yesterday.'

A final piece of evidence in favor of an ellipsis approach to these kinds of verbal responses comes from a certain type of connectivity effect, related to identity conditions on the verb. It is well known that ellipsis requires identity of the elided material to some antecedent, though how this condition should be characterized remains a subject of great interest and debate (see Rooth 1992; Chung et al. 1995; Heim 1997; Merchant 2001; Takahashi and Fox 2005; Chung 2006, 2013, *inter alia*). In configurations that involve head movement out of the ellipsis site there is the additional complication that the parts of the verb originating inside the ellipsis site may be expected to match the corresponding parts of the antecedent verb. This is indeed the case for languages with verb-stranding ellipsis, such as Irish (McCloskey, 2011, 2012) and Hebrew (Goldberg, 2005b,a). The Russian facts appear to be more complicated, with certain types of verb-stranding ellipsis permitting mismatches if the verbs are contrastively focussed — as Gribanova (2013b) points out, this is actually expected given a theory of head movement in which verb movement may leave traces, and a theory of the identity condition on ellipsis along the lines of Heim 1997.

---

[24] Full VSO answers to questions, as presented in (51), are less preferred in the default case, ellipsis being a much more felicitous option. A full, unelided answer communicates more emphasis and is more compatible with a context in which the responder in the discourse is aggravated with the question, for example.

For our purposes, what is important is that verbal responses to polar questions *do* involve a restriction in mismatching the stranded verb and the antecedent verb. This restriction is active in the overwhelming majority of cases, absent contrastive focus on the verbs in question. Thus, verb stems cannot be mismatched even if the meaning of the verbs is quite similar (52). Likewise, verb stems cannot be mismatched if they contrast, unless the polar alternatives in the discourse have first been addressed (53).

(52) Paša poterjal   knigu   v biblioteke, i žurnal   v stolovoj?
Paša lose.PST.SG.M book.ACC in library.DAT and magazine in cafeteria.DAT
'Did Pasha lose a book in the library, and a magazine in the cafeteria?'

*Da, posejal.
Yes, lost.PST.SG.M

(53) a. Paša našel   knigu   v biblioteke, i žurnal   v stolovoj?
Paša find.PST.SG.M book.ACC in library.DAT and magazine in cafeteria.DAT
'Did Pasha find a book in the library, and a magazine in the cafeteria?'
*Poterjal.
lose.PST.SG.M

b. Net, ne našel, a   poterjal.
No, he NEG find.PST.SG.M but   lose.PST.SG.M
'No, he didn't find (…), he lost (…).'

Whatever the account of such effects — a topic for another paper — its immediate consequence for the current discussion is that a limited type of identity between the stranded and antecedent verb is required. This suggests that ellipsis is involved, and that the ellipsis site is at least large enough to include in it the original positions associated with the verb stem (VP or larger). An account that relies solely on argument drop or NP/PP ellipsis predicts that no matching effect should hold at all.

Taking all this as evidence in favor of an account in which the verb moves to Pol (resulting in VSO order) and TP is elided, we can posit yet another type of Pol head whose features trigger the relevant behaviors inside the clause. This featural inventory includes a polarity focus feature (POLFOC), a feature triggering ellipsis (E), and an EPP subfeature on the polarity value which triggers head movement of the agreed-with head (Neg).

(54)   PolP

AdvP   Pol   TP
 |
Adv [POL : α, EPP] …Neg-Asp-V-*v*…
da/net POLFOC
        E
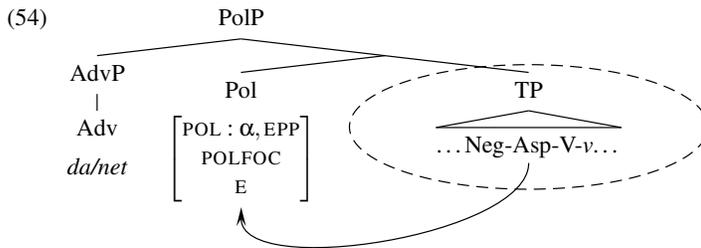
4.3 Interim Summary

What we established in §3 was that Russian makes use of a discourse-sensitive head movement strategy in which the verb moves to a clause-initial position (Pol), resulting in discourse-marked VSO orders which communicate polarity focus. In this section, we have explored two configurations in which, I have claimed, the same head movement may take place, in conjunction with ellipsis of TP. A further complication is that the polarity focus may be realized by head movement or by insertion of a polarity particle (or both). This kind of empirical landscape leads to an analysis in which there is a variety of Pol

heads, each bearing different features, which in turn yield the different configurations outlined in this and previous sections. Since we are most concerned with the heads that trigger verb movement, I provide a summary of them below.

(55) a. $\left[\text{POL} : \alpha\right]$ → verbal complex stays in Neg (SVO)

b. $\begin{bmatrix} \text{POL} : \alpha, \text{EPP} \\ \text{POLFOC} \\ \text{REVERSE} \end{bmatrix}$ → contrastive polarity focus (VSO)

c. $\begin{bmatrix} \text{POL} : \alpha, \text{EPP} \\ \text{POLFOC} \\ \text{REVERSE} \\ \text{CT,EPP} \\ \text{E} \end{bmatrix}$ → contrastive polarity ellipsis (VSO)

d. $\begin{bmatrix} \text{POL} : \alpha, \text{EPP} \\ \text{POLFOC} \\ \text{E} \end{bmatrix}$ → verbal answers to polar questions (VSO)

5 Ellipsis and head movement

This section is dedicated to fleshing out two, as it turns out, interconnected questions. The first question regards how the results here are connected to previous investigations of clause structure and ellipsis in Russian. In particular, Gribanova (2013a,b) has argued — though not without some debate (see Bailyn 2014; Erteschik-Shir et al. 2013) — for a different type of ellipsis, in which the verb moves just to its intermediate position (resulting in SVO order) and is stranded outside a vP ellipsis site (Verb-Stranding Verb Phrase Ellipsis, or VVPE). If this approach is correct, then it represents an instance of the strategy in B, predicted in our table of logical possibilities, repeated here.

(56) Russian word order and ellipsis possibilities

	TP ellipsis	vP ellipsis
Verbal complex in Neg (SVO)	A. Yes/No [$_{\text{TP}}$ ...]	B. SV [$_{vP}$ ...]
Verbal complex in Pol (VSO)	C. V[$_{\text{TP}}$ ...]	D. *VS [$_{vP}$ ...]

I briefly summarize the relevant portion of argumentation in favor of such a possibility, following up with some additional observations about how this type of ellipsis compares with the TP ellipsis explored in §4.

The second question gets to the core theoretical issue under the lens in this investigation: what is the theoretical status of head movement in the architecture of the grammar? Evidence from ellipsis provides crucial insight, when we consider the empirical picture thus far laid out before us. If vP ellipsis is an attested possibility in conjunction with canonical SVO orders (i.e. cell B), then it should also in theory be attested in conjunction with head movement to Pol (i.e. VSO, in cell D); the fact that it is not attested tells us something crucial about the way head movement and ellipsis interact. The configuration in cell D is impossible, I argue, because of a constraint — *MaxElide* (Merchant, 2008) — which forces the larger of two possible ellipsis domains to be elided, if movement (originally, Ā-movement) has taken place out of the ellipsis site.

(57) a. He might have seen someone but I don't know who.
b. *He might have seen someone, but I don't know who he might have.

The configuration in cell D resembles the configuration in (57b), except the movement out of the ellipsis site is head movement, rather than phrasal Ā-movement. I argue here, with Hartman (2011), that the logic used to explain the impossibility of (57b) can be extended to head movement to explain the absence

of the configuration in cell D. Crucially, this explanation can only work under the assumption that the relevant head movement must take place in the narrow syntax, leaving behind a variable which counts for the purposes of the calculation of the parallelism domain with respect to which *MaxElide* will apply. Evidence of this type is subtle, and difficult to pinpoint; Hartman 2011 is to date the only study that has investigated head movement from the perspective of *MaxElide*. He found that *MaxElide* does indeed extend to such movements, and generalized Merchant's proposal accordingly. The evidence provided here, then, is an important addition to the argument for treating at least certain types of head movement as syntactic.

5.1 Verb-stranding verb phrase ellipsis

Earlier proposals (Gribanova, 2013b,a) argue in favor of an analysis in which the verb moves to an intermediate position — on the current proposal, that would be Neg — in conjunction with ellipsis of *v*P. Combined with this paper's discussion, this results in two ellipsis possibilities, crossed with different verb movement possibilities:

(58)

(59)
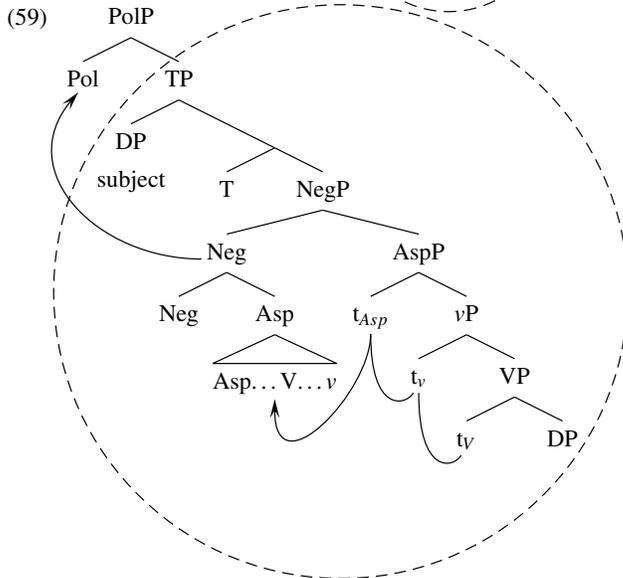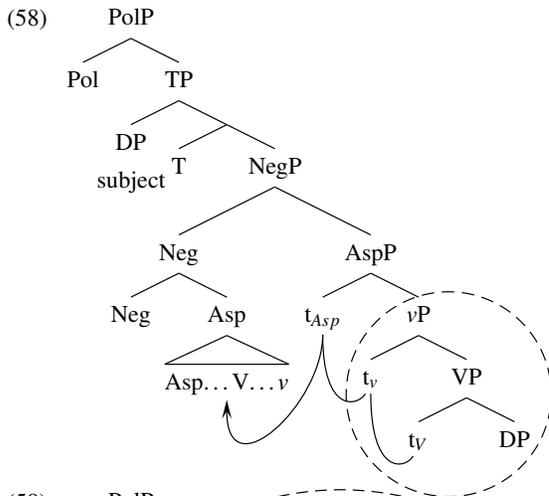
A question that naturally arises, once we have proposed verb movement to Pol in conjunction with TP ellipsis for verbal answers to questions, is whether all verb-stranding constructions can be subsumed by this analysis. Beyond the evidence presented in Gribanova 2013b,a, core evidence that there are two sizes of ellipsis domain, as well as different landing sites for the verb, comes from the behavior of subjects in the different configurations.

If the general approach thus far elaborated is correct, then what we expect is this: verb movement to Pol in polarity focus situations, in conjunction with TP ellipsis, should permit no pronunciation of subjects, either pre- or post-verbally. Modulo the some speaker variation w.r.t. the availability of pre-verbal subjects in responses to polar questions, this appears to be on track, as shown in (50), repeated as (60):[25]

(60) Maša včera   otpravila   pis′mo v Moskvu, i   telegrammu v Piter?
       Masha yesterday sent.PST.SG.F letter   to Moscow and telegram   to Piter
       'Did Masha send a letter to Moscow, and a telegram to St. Petersburg yesterday?'

   a. (Da), (#/?ona) otpravila   (*ona).
       Yes, (#she)   send.PST.SG.F (*she)
       'Yes, she did.'

   b. (Net), (#/?ona) ne   otpravila   (*ona).
       No,   (#she)   NEG send.PST.SG.F (*she)
       'No, she didn't.'

If, however, there is also a *v*P ellipsis option, in conjunction with the verb remaining in its intermediate position (Neg, as in (58)), what we expect is that there should also be an option in which a pre-verbal subject may be pronounced. This state of affairs should arise only in cases where polarity focus is absent, signaled by the fact that the verb has not raised to Pol.[26] It so happens that in discourse environments with no polarity contrast and no polarity focus, pre-verbal subjects are possible to pronounce in a way that is not natural in cases of verbal answers to questions:

(61) Oni poprosili Anju   otpravit′ pis′mo v Moskvu i   banderol′ v Piter, i   ona
       they ask.PST.PL Anya.ACC send.INF letter   to Moscow and package   to Piter and she.NOM
       otpravila.
       sent.PST.SG.F
       'They asked Anya to send a letter to Moscow and a package to St. Petersburg, and she did.'

(62) Pete   nužno bylo otpravit′ pis′mo v Moskvu i   dokumenty v Piter. Ty ne   znaeš′,
       Peter.DAT needed was send.INF letter   to Moscow and documents to Piter you NEG know.2SG
       polučilos′ li?
       work-out   Q
       'Peter needed to send a letter to Moscow and the documents to St. Petersburg. Do you know if it worked out?'

       On otpravil,   no s   bol′šim   trudom.
       he send.PST.SG.M, but with big.INSTR difficulty.INSTR
       'He sent (. . .), but with great difficulty.'

From this we can conclude that the presence of a pre-verbal subject is correlated with the absence of polarity focus, which in turn means, on the theory developed here, that the lack of verb raising to Pol

[25] Recall that the unelided VSO response to the question in (60), shown in (51), is acceptable.

[26] Asserting that there is no polarity focus in such examples is a tricky business, because stranding of an element outside an ellipsis site commonly involves some kind of focus, be it polarity focus or otherwise. Suffice it to say that in the examples in (61,62), the stranded verb is not addressing the matrix alternatives *p* or ¬*p*. In (61), these matrix alternatives amount to {*they asked Anya to...*, *they did not ask Anya to...*}; in (62), they amount to {*it worked out*, *it did not work out*}.

still permits ellipsis, though of a smaller constituent (the *v*P). The argument drop/NP ellipsis possibility is once again ruled out in these examples via the use of a complex antecedent involving *v*P coordination and across-the-board movement of the verb.

5.2 The role of *MaxElide* and the nature of head movement

What the previous section demonstrated is that TP ellipsis and *v*P ellipsis are both attested in Russian; we also know that two landing sites for the verb are possible, with the corresponding discourse effects or lack thereof. This predicts the possibility of the fourth configuration in our table, in cell D.

(63) Russian word order and ellipsis possibilities

	TP ellipsis	*v*P ellipsis
Verbal complex in Neg (SVO)	A. Yes/No [$_{TP}$…]	B. SV [$_{vP}$…]
Verbal complex in Pol (VSO)	C. V[$_{TP}$…]	D. *VS [$_{vP}$…]

If movement to Pol is a possibility — with the corresponding polarity focus effect — and ellipsis of *v*P is also a possibility, then we expect them to be able to co-occur. The goal of this section is to demonstrate, first, that this is not an attested configuration; and second, to explain the absence of this configuration in terms that force the conclusion that head movement of this kind is a narrow syntax phenomenon, giving rise to variable binding effects.

What would the configuration in cell D look like? We have documented two constructions involving movement to Pol: contrastive polarity ellipsis and verbal answers to questions. In the case of contrastive ellipsis, the ellipsis appears to be obligatory and the question of whether *v*P can be elided in such configurations is thus moot. In the case of non-contrastive responses to polar questions, however, we know that the full, unelided response is permissible.

(64) a. Maša včera   otpravila   pis′mo v Moskvu, i   telegrammu v Piter?
          Masha yesterday sent.PST.SG.F letter   to Moscow and telegram   to Piter
          'Did Masha send a letter to Moscow, and a telegram to St. Petersburg yesterday?'

     b. (Net), ne otpravila   ona včera   pis′mo v Moskvu, i   telegrammu v Piter.
          no   NEG sent.PST.SG.F she yesterday letter   to Moscow and telegram   to Piter
          'No, she didn't send a letter to Moscow and a telegram to St. Petersburg yesterday.'

     c. (Da), otpravila   ona včera   pis′mo v Moskvu, i   telegrammu v Piter.
          yes   sent.PST.SG.F she yesterday letter   to Moscow and telegram   to Piter
          'Yes, she sent a letter to Moscow and a telegram to St. Petersburg yesterday.'

If TP ellipsis is not obligatory, this means that *v*P ellipsis should, barring other constraints, be possible. What we would expect in such a case is that any syntactic material that would normally appear between Pol and *v*P could be pronounced, if the ellipsis site is as small as *v*P. One piece of syntactic material that routinely shows up between these two points is the subject, whose surface position is, by nearly all accounts, [spec TP]. This would amount to the pronunciation of a post-verbal subject in the relevant constructions; but this is banned.

(65) a. Maša včera   otpravila   pis′mo v Moskvu, i   telegrammu v Piter?
          Masha yesterday sent.PST.SG.F letter   to Moscow and telegram   to Piter
          'Did Masha send a letter to Moscow, and a telegram to St. Petersburg yesterday?'

     b. (Da), otpravila   (*ona).
          Yes, send.PST.SG.F (*she)
          'Yes, she did.'

     c. (Net), ne otpravila   (*ona).
          No,   NEG send.PST.SG.F (*she)
          'No, she didn't.'

These examples demonstrate that stranding of material after the verb in verbal answers to questions (65) is prohibited: if the verb has moved to Pol, only TP ellipsis is countenanced.

The reader will have noticed that there is a third construction, which may represent an instance of the configuration in cell D. This is a subtype of the emphatic VSO construction discussed in §3, the canonical realization of which involves pronunciation of all the arguments. However, there are also examples, such as the first part of the response in (66), in which the internal argument is missing, but the verb and subject are pronounced (in that order). This is exactly the order of arguments we would expect if this were a case of verb movement to Pol with *v*P ellipsis (i.e. cell D).

(66)   [*Context:* discussion of whether it is worth it to go see an apartment][27]

"How's that!" Gena grabbed him by the sleeve. "Are you serious? It is certainly necessary, certainly! Will you check the joists? What about the floor plan?"

[*Implicit proposition:* you haven't seen the apartment (or the joists, or the floor plan)]

Da videl   ja, videl   ja perekrytija!
Də see.PST.SG.M I   see.PST.SG.M I joist.PL
'I saw the joists, I saw them!'

Despite initial appearances, such examples do not constitute genuine cases of ellipsis but rather are instances of object drop. A tell-tale sign of this is that such utterances are not licensed[28] with complex *v*P antecedents of the kind that we have been using as a test for *v*P ellipsis throughout this paper:

(67)   Maša včera   otpravila   pis′mo v Moskvu, i   telegrammu v Piter.
       Masha yesterday sent.PST.SG.F letter   to Moscow and telegram   to Piter
       'Masha sent a letter to Moscow, and a telegram to St. Petersburg yesterday.'

       *(Də) (net,) ne   otpravila   ona!
       PRT   no   NEG send.PST.3SG.F she.NOM

       intended: 'No, she DIDN'T send a letter to Moscow and a telegram to St. Petersburg!'

A second piece of evidence pointing to the same conclusion is that declarative VSO configurations are famously barred from appearing inside embedded clauses (68b) (Van Gelderen, 2003). Despite this, the elliptical versions of these same utterances are permitted (68c); the explanation for this contrast remains a mystery. The telling observation, however, is that verb-subject utterances are blocked under embedding, too (68d). This pattern makes sense if verb-subject utterances are really VSO utterances with object drop — in other words, they are not true instances of ellipsis, since if they were, they would be licensed under embedding in alignment with (68c).

(68)   a. On   videl   perekrytija?
           he.NOM see.PST.3SG.M joists.ACC
           'Did he see the joists?'
       b. *Ja uveren,   čto videl   on   ix.
           I sure.M.SG that see.PST.3SG.M he.NOM them.ACC
       c. Ja uveren,   čto videl.
           I sure.M.SG that see.PST.3SG.M
           'I'm sure that he did.'
       d. *Ja uveren,   čto videl   on.
           I sure.M.SG that see.PST.3SG.M he.NOM

---

[27] Andrej Volos. *Nedvižimost′* (2000) // "Novyj Mir", 2001 (RNC)

[28] Some subset of speakers considers these degraded, but stop short of describing them as ungrammatical. This is true primarily in the cases with negation in the response — a fact for which I have no explanation at this stage.

Both paradigms discussed just above lead us to the conclusion that verb-subject utterances are not instances of the behavior in cell D (movement of the verb to its high landing site and ellipsis of *v*P), but rather instances of object drop. This is important for two reasons. First, and most simply, it tells us that there really is no genuine case of the situation described in cell D of (63); in other words, there is really a cell that is unattested in the paradigm, which requires an explanation. Second, and more importantly, it also tells us that the reason for the absence of configurations representing cell D is not prosodic: verb-subject orders in the absence of internal arguments are instantiated in Russian, and the prosodic contour associated with them is licensed. This excludes the possibility that the explanation for the absence of configurations representing cell D is prosodic.[29]

Having established that there is no attested configuration in which cell D holds in Russian, we can now appeal to an explanation of its absence that draws on the idea that the kind of head movement that leads to VSO is syntactic. This movement counts for the purposes of creating a *MaxElide* effect that forces TP, rather than *v*P, ellipsis (even though both are otherwise attested). Recall that *MaxElide* is typically invoked in the interaction of phrasal movement and ellipsis, to explain why in e.g. WH-movement, if ellipsis applies it may only apply to the larger of two eligible constituents.

(69) a. They studied a Balkan language, but I don't know which.
      b.[?*] They studied a Balkan language, but I don't know which they did.
          (Lasnik, 2001; Merchant, 2008)

This pattern appears only to hold in the context of WH-movement out of the ellipsis site. Where there has been no WH-movement, or a WH-phrase is arguably base-generated at the left edge instead of being moved out of the ellipsis site, both larger and smaller ellipsis are countenanced (Merchant, 2008).

(70) a. Mary said you would leave, and Sue also did.
      b. Mary said you would leave, and Sue also said you would.

(71) a. John's leaving. Do you know when (he is)?
      b. Mary was trying to kiss someone, but I don't know when (she was).

The empirical situation outlined for Russian in this paper (e.g., absence of the pattern in cell D), can be understood as a head movement parallel to interactions already observed in the context of phrasal movement out of ellipsis sites.

To understand the contrast originally codified by Merchant (2008) as the *MaxElide* condition, we need to embed it within the broader context of identity conditions on ellipsis licensing. The question of how exactly an identity condition should be formulated is a deep one, with a rich history (see Merchant 2001, To appear for discussion). In broad strokes, there are a few prominent perspectives on the nature of this condition: it may be phrased in semantic or syntactic (LF-structural) terms, or in some combination of both. On the syntactic side are proposals like that of Fiengo and May (1994), in which the elided constituent must be syntactically identical to some linguistic antecedent. Proposals like Merchant's (2001) E-GIVENNESS formulate this requirement in semantic terms, with positive consequences for our understanding of numerous difficult puzzles, including vehicle change effects; this is the condition I use here.

(72) a. A constituent α can be elided if it is E-GIVEN.
      b. E-GIVENNESS: an expression X is E-GIVEN *iff* X has a salient antecedent A and, modulo existential type-shifting, A entails E-clo(X) and X entails E-clo(A).
      c. The E-closure of α (E-clo(α)) is the result of replacing all E-marked subelements of α with variables of the appropriate type.

---

[29] Thanks to Sandra Chung, p.c., for asking the question that led to this reasoning.

In addition to this condition, ellipsis is also governed by a general containment condition (*Parallelism*) which is needed independently to generalize over structures that contain foci – this includes constituents that undergo focus-sensitive reduction (de-accenting) and ellipsis, among other things (Rooth, 1992). Takahashi and Fox (2005) leverage this independently required condition so that *MaxElide* can refer directly to it.

(73) PARALLELISM:
    For ellipsis of EC [elided constituent] to be licensed, there must exist a constituent — the parallelism domain —- which dominates EC, which is semantically identical to an antecedent constituent, modulo focus-marked constituents.

In a case like (69), these two conditions will interact with *MaxElide* to yield only one ellipsis possibility (even though one other is otherwise independently attested), with the addition of two important conditions. The first is that variables with distinct indices will not count as distinct for the purposes of any ellipsis identity condition (Rooth, 1992; Heim, 1997; Merchant, 2001). The second, endorsed both by Takahashi and Fox (2005) and subsequently by Hartman (2011), comes out of the observation that syntactic movement out of ellipsis sites leads to configurations in which there is a moved item that has left a variable inside the ellipsis site. Just in this case, the parallelism domain must be large enough to include the binder and the bindee; otherwise, the variable inside the ellipsis domain would be free, and non-identical to its antecedent counterpart.[30] In this context, the statement of *MaxElide* is as follows:

(74) *MaxElide* (Takahashi and Fox, 2005): Elide the biggest deletable constituent reflexively dominated by the parallelism domain.

The idea, then, is that phrasal movement out of an ellipsis site will create a variable binding configuration, forcing the parallelism domain (underlined below) to be larger than it otherwise might be.[31]

(75) a. He might talk to someone, but I don't know who (*he might).
    b. someone λy. he might talk to y but I don't know who $\underline{\lambda x. [_{TP} \text{ he might } [_{VP} \text{ talk to x}]}$

MaxElide will then force us to choose the largest possible ellipsis domain within the parallelism domain, which will lead to ellipsis of TP but not VP in the English cases above (e.g., the pattern in (69)). In cases like (71), there is no movement and therefore no variable binding configuraiton, so the parallelism domain need not be so large (though it may); if the parallelism domain is smaller, the largest ellipsis site within that smaller domain will be VP, permitting both sizes of ellipsis to apply.

What I propose here is that this logic can be profitably extended to head movement to explain the absence of cell D in (63) in which head movement of the verbal complex to Pol is accompanied with a small ellipsis site (*v*P rather than TP). The situation is analogous in nearly every respect to the phrasal cases *MaxElide* was originally meant to account for, and we have additional reason to believe that the explanation is not a prosodic one. Crucially, if we choose to make this move, we must assume that head movement of the verbal complex to Pol leaves a trace in the ellipsis site, interpretable as a variable. In other words, making use of this kind of explanation inexorably leads to the conclusion that this kind of head movement takes place in the narrow syntax, since it is the narrow syntax which will feed the kinds of LF representations to which the PARALLELISM component of the ellipsis identity condition applies. If head movement to Pol takes place in the narrow syntax and leaves behind a trace in the ellipsis site, then it will also give rise to a variable binding configuration, which will force the parallelism domain to be large enough to include the binder (λx) and the variable inside the ellipsis site (x). Just as with the phrasal

---

[30] This holds as long as we also assume Heim's (1997) ban on meaningless co-indexation, which makes sure that the free variable in the antecedent and elided constituent are not accidentally co-indexed.

[31] Following Hartman 2011, I assume that covert quantifier raising will take place in the antecedent constituent, creating a structure parallel to the paralellism domain. See below for discussion of the extension of this assumption, along with the rest of the *MaxElide* logic, to head movement.

cases, *MaxElide* will then force ellipsis of the largest possible constituent inside the parallelism domain — in the Russian cases, this means the choice of TP ellipsis over *v*P ellipsis just in such configurations.

Additional evidence that *MaxElide* is involved comes from the observation that the configuration in cell D *does* arise, but only under very specific conditions. It has been observed for English that *MaxElide* effects are ameliorated when contrastive, non-elidable material intervenes between the smaller and the larger potential ellipsis sites:

(76) a. Jack should invite someone, but I don't know who (*he should).
      b. I don't know who Jack *should* invite, but I know who he *must*.

The situation in Russian is somewhat different, for reasons having to do with how the language configures discourse-marked constituents. Discourse markedness is expressed both via intonation *and*, crucially, via movement; if a constituent or a head bears focus, it is much less likely to stay in the position where it is initially merged. The kind of configuration we might hope to find, by analogy with (76), would involve a focused subject in [spec, T] below Pol. We might then expect this subject to be pronounced in a VS order of the kind exemplified in cell D.

(77) a. Kto nibud′ poslal   pis′mo v Piter i   banderol′ v Moskvu?
          someone   send.PST.3SG letter   to Piter and package   to Moscow
          'Did someone send a letter to St. Petersburg and a package to Moscow?'
      b. Otpravila   *Evgenija* (…no ne Darja).
          sent.PST.3SG.F Eugenia …but NEG Darja
          '*Eugenia* did (…but not Daria).'

Such examples seem to bear out the prediction, modulo the very important point that VS orders of this kind are often analyzed as involving extraposition and right-adjunction (Sekerina, 1997; Slioussar, 2011). If that is indeed the right structural analysis, then these are not genuine examples of focus ameliorating the *MaxElide* effect. However, the same effect can be modeled with low adverbials, which typically are analyzed as attaching somewhere between VP and TP in Russian (Bailyn, 1995a).

(78) a. Ona pišet   pišmo komitetu   i   otvet na recenziju v žurnal?
          she write.*3sg* letter committee.DAT and answer to review   to journal
          'Is she writing the letter to the committee and the response to the review to the journal?'
      b. Pišet   ona *medlenno* (…a   drugoj mog by pobistree).
          write.3SG she slowly   (…but another could SUBJ faster)
          'She's writing (them) slowly (while someone else might have done it faster).'

The licitness of a VS order in just the cases where there is focused material intervening between the two ellipsis sites lends further support to the idea that MaxElide is responsible for the absence of cell D in non-focused contexts.

A simplified case, about which we will have more to add below, is illustrated in (79). I follow Hartman (2011); Takahashi and Fox (2005) in taking A-movement of the subject from a *v*P-internal position to [spec, TP] to also leave a trace.

(79) a. Otpravila   li Maša pis′mo v   Moskvu?
          send.PST.SG.F QMasha letter to   Moscow
          'Did Masha send a letter to Moscow?'
      b. (Da), otpravila   [Masha pis′mo v Moskvu].
          Yes, send.PST.SG.F [Masha letter to Moscow]
          'Yes, she did.'
      c. Antecedent:
          sent Q λx. [_TP Masha λy. [_vP y x letter to Moscow]]
      d. Parallelism domain:
          sent λx. [_TP Masha λy. [_vP y x letter to Moscow]]

The parallelism domain dominating the elided constituent must be quite large, if the moved verb has left a trace, interpretable as a variable, inside the elided constituent. The logic of *MaxElide* will force ellipsis of the largest possible constituent, which is TP in such cases, never *v*P.

Two important issues arise with respect to (79). The first issue concerns the syntactic form of the antecedent polar question in such cases. The reader may already have noticed that the syntax of the polar question in (79) differs from that of most of the matrix polar questions in the paper. We have already seen that polar questions come in two forms: one involving declarative (SVO) syntax and rising intonation on the verb, and a second involving verb fronting and a question particle *li*, which appears after the verb. The latter construction has been analyzed as involving verb movement to a high focus position (for us, Pol), and with the second-position polar question clitic prosodically lowering from C (King, 1995). It so happens that the option with declarative syntax is more natural for most speakers for matrix polar questions. The example (79) uses the option with movement of the verb, however, in order to make the syntax of the antecedent and elided constituent exactly parallel. In the case of declarative syntax for the antecedent, I must assume, just as with A-movement, that head movement to Pol can take place at LF, yielding an LF representation just like the one in (79), even if the surface syntax of the antecedent involves no verb movement to Pol.[32] This assumption follows from the more basic idea that the verb movement is syntactic to begin with.

The second issue has to do with the multi-step nature of the head movement involved. One can, and should, ask whether this makes any predictions that differ from the WH-movement situation, in which there is only one step (in cases lacking embedded clauses) to the movement and therefore only one position (the landing site) for the binder of the variable. The Russian head movements in question actually involve numerous steps — from V to *v* to Asp to Neg and finally, to Pol — and if we take the head movement to be syntactic all the way up, each one of those movement steps provides a new landing site from which the binding of a variable could potentially take place. The particular worry is that, at the stage when the verbal complex has moved, e.g. as far as Asp, this position is already outside a potential ellipsis site; therefore there already exists a potential parallelism domain which includes both the variable (in situ) and the binder (in Asp). If *MaxElide* takes this parallelism domain as its starting point, then the ellipsis of *v*P could in theory be licensed, since it is the largest ellipsis-eligible constituent in AspP. The verbal complex may, or may not, move further at that point. This type of calculation would actually nullify our explanation, predicting the possibility of VSO syntax with *v*P ellipsis (i.e. cell D), which we have shown is not attested.

If there were no other movement steps in the course of the derivation of polar questions and their responses, this would certainly be a major problem. There is an important intervening factor, however, which explains why we are not forced into this position. As suggested by Takahashi and Fox (2005) and further supported by Hartman (2011), A-movement also leaves traces which are counted for the purposes of determining the parallelism domain.[33] In Russian, there is strong evidence (Bailyn, 1995a, 2004) that the subject A-moves from a *v*P-internal position to [spec, TP]. If that is the case, then the *smallest* possible parallelism domain is the one that includes the subject trace and its binder, in TP. If

---

[32] A reviewer notes that we may expect independent evidence of covert verb movement in polar questions with an *in situ* verb. These effects, if they exist, will be very subtle and difficult to illustrate. This is because the primary source of such evidence comes from scope judgments involving modals and quantifiers in monoclausal structures (see, for example, Lechner 2007). Russian modals *dolžen* 'ought' and *možet* 'may' are either raising or restructuring predicates and therefore involve bi-clausal structures, making scope judgments more difficult. Even if those judgments were clear, given the bi-clausal nature of these structures, it would take independent analysis to understand what the predictions would even be in such cases. If independent evidence for covert verb movement exists in this language, the relevant effects will likely look quite different in Russian. For this reason, I leave this very interesting question open for future research. Finally, it is worth noting that LF movement of the verb to a high position is an essential component of Abels' (2005) account, since this is what leads to the inability of so-called 'expletive' negation to license *n*-words, even when the negation appears *in situ* in the narrow syntax.

[33] Though see Messick and Thoms 2016 for discussion of the possibility that A-movement may not be relevant for *MaxElide*, at least in certain cases.

the verb did not move to Pol, the parallelism domain (assuming an appropriate antecedent) would then include the domain including the λ-abstractor associated with the moved subject:

(80) [_TP Masha λx. sent [_vP x the letter to Moscow]]

Given just this much, we see that the effect of the numerous head movement steps involved in unifying the verbal complex will be obscured, for the purposes of the parallelism domain calculation, by the movement of the subject. In such cases, the application of *MaxElide* will yield the choice of a *v*P ellipsis site, since that is the largest possible ellipsis site in the relevant parallelism domain. This is consistent with the empirical observation that SVO syntax is compatible with *v*P ellipsis (and verb-stranding in Neg). What is crucial to the current investigation is that it is the *additional* head movement step, from Neg to Pol, yielding VSO orders, that extends the parallelism domain to engulf TP (as in (79)). It is just in these cases that the larger ellipsis site must be chosen, once again yielding an explanation for the absence of attested configurations that correspond to cell D in (63). A corollary to this is that we have evidence for the true syntactic nature of the head movement only for the last step of the movement – the step that takes us from Neg to Pol. Because earlier head movement steps are obscured by the effect of the A-movement of the subject, we have no evidence in favor of any particular claim about their status with respect to the architecture of the grammar.

6 Conclusions

This investigation has set out to defend two major claims. The first is that the constructions introduced in (1) can receive an account that unifies them in terms of their discourse contribution and in terms of their syntax, while still allowing for the observation that they are all variations on a theme (polarity focus), and may differ in certain key ways. The result of sorting out this empirical picture — involving two ellipsis possibilities and two head movement landing sites for the verbal complex — is that we predict four logical possibilities, but only three are attested even though the mechanisms to yield the fourth are independently attested. The second major claim, then, is that the lack of this fourth possibility is the reflection of an effect often observed in the interaction of phrasal movement and ellipsis — *MaxElide*. This explanation is predicated on the requirement that the relevant movement — head movement, in this case — is syntactic and leaves a trace, interpretable as a variable for the purposes of variable binding and the calculation of parallelism domains in the ellipsis identity condition.

What, then, are the consequences of such a move? One very specific consequence involves the verbal identity condition in verb-stranding ellipsis of the kind investigated here, briefly mentioned in §4.2. This condition has a long history, with several well-established studies in Hebrew (Goldberg, 2005b,a) and Irish (McCloskey, 2011, 2012) demonstrating that the parts of the stranded verb originating inside the ellipsis site must be lexically identical to those same parts in the antecedent. Why would such a condition hold? There are at least two explanations: the verb movement in these cases is either obligatorily reconstructed into its original merge position (Goldberg, 2005b), or the verb movement is postsyntactic (Schoorlemmer and Temmerman, 2012). Both explanations share the property of necessitating that at the point of the identity condition on ellipsis is evaluated, the verb's parts will be in their original position and will count for the purposes of some isomorphism condition; for detailed discussion, see McCloskey 2012. Since the current investigation demonstrates that at least certain types of head movement are syntactic, this rules out the universality of a postsyntactic explanation and opens the door to the possibility that some head movements may be both syntactic and *not* reconstruct, leading to mismatches under certain conditions. There is in fact growing evidence that mismatches of the stranding verb's stem are permissible under narrow focus on the content of the verb, in Russian (Gribanova, 2013b), European Portuguese (Santos, 2009), Swahili (Ngonyani, 1996), and Hungarian (Lipták 2013, Anna Szabolcsi, p.c.) at least. No explanations are currently available as to why Russian and Hungarian behave differently with respect to the verbal identity condition than Hebrew and Irish, but the conclusion reached here on independent

grounds — that some head movements can be syntactic — contributes to this picture in a way that should ultimately be helpful.

Returning to the broader picture, as I demonstrated at the end of §5.2, although there are numerous head movement steps, their effect for the purposes of variable binding is obscured by A-movement of the subject, which leaves its own trace and therefore necessitates that the parallelism domain is at least large enough to include the λ-abstractor associated with the moved subject. It is the last head movement step, from Neg to Pol, which forces even a larger parallelism domain, and therefore it is this step about which we can make the claim that it is syntactic. This should not be a surprise, in the sense that if *any* head movement is going to be syntactic, it should certainly be this kind: it leads to VSO orders and is sensitive to features typically associated with phrasal movement — in this case, discourse features. The idea that head movement is driven by the same mechanisms underlying phrasal movement is a prominent one, but the role of discourse-driven movement is not often investigated in this context. This puts the Russian phenomena under investigation into a small but growing class of head movements associated with discourse effects, including Irish verb-stranding verb phrase ellipsis (VVPE) (McCloskey, 2012), Bulgarian discourse-motivated VSO (Lambova, 2004), and head movement in Hebrew (Landau, 2006) and Spanish (Vicente, 2009) predicate clefts. As a famously discourse-configurational language, Russian is the ideal language in which to investigate such effects: if discourse features motivate phrasal movement, we expect (and find) the possibility that they may also be involved in driving head movement.

We are left, then, with a larger question about whether we can find parallel evidence of syntactic status for cases of head movement that appear more morphophonologically driven. Is the head movement responsible for the formation of the Russian verbal complex also syntactic? This subtype typically has quite different properties from the type forming VSO configurations: it is obligatory and not discourse-sensitive, for example. The results of the present work, then, open up the interesting possibility that head movement may not be unified in terms of its location in the architecture of the grammar. I take this open question to represent the next step in these ongoing investigations.

References

Abels, Klaus. 2005. "Expletive" negation in Russian: A conspiracy theory. *Journal of Slavic Linguistics* 1 (13): 5–74.

Babko-Malaya, Olga. 2003. Perfectivity and prefixation in Russian. *Journal of Slavic Linguistics* 11 (1): 5–36.

Babyonyshev, Maria. 1996. Structural connections in syntax and processing: Studies in Russian and Japanese grammatical subject in first language acquisition. PhD diss, MIT.

Bailyn, John Frederick. 1995a. A configurational approach to Russian 'free' word order. PhD diss, Cornell University.

Bailyn, John Frederick. 1995b. Underlying phrase structure and 'short' verb movement in Russian. *Journal of Slavic Linguistics* 3 (1): 13–58.

Bailyn, John Frederick. 2004. Generalized inversion. *Natural Language and Linguistic Theory* 22: 1–49.

Bailyn, John Frederick. 2012. *The syntax of Russian*. New York: Cambridge University Press.

Bailyn, John Frederick. 2014. Against a VP ellipsis account of Russian verb-stranding constructions. In *Studies in Japanese and Korean linguistics and beyond*, ed. Alexander Vovin. Folkestone and Leiden: Global Oriental/Brill.

Bjorkman, Bronwyn, and Hedde Zeijlstra. 2014. Upward agree is superior. University of Toronto and Georg-August-Universität Göttingen.

Boeckx, Cedric, and Sandra Stjepanović. 2001. Heading towards PF. *Linguistic Inquiry* 2 (32): 345–355.

Brown, Sue. 1999. *The syntax of negation in Russian*. Stanford, CA: CSLI.

Brown, Sue, and Steven Franks. 1995. Asymmetries in the scope of Russian negation. *Journal of Slavic Linguistics* 2 (3): 239–287.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, eds. R. Martin, D. Michaels, and J. Uriagereka. Cambridge, MA: MIT Press.

Chung, Sandra. 2006. Sluicing and the lexicon: The point of no return. In *Proceedings of the Annual Meeting of the Berkeley Linguistics Society 31*, eds. Rebecca T. Cover and Yuni Kim, 73–91. Berkeley, CA: Berkeley Linguistics Society.

Chung, Sandra. 2013. Syntactic identity in sluicing: How much and why. *Lingustic Inquiry* 44 (1): 1–44.

Chung, Sandra, Bill Ladusaw, and James McCloskey. 1995. Sluicing and logical form. *Natural Language and Linguistic Theory* 3 (3): 239–282.

Comrie, Bernard. 1973. Clause structure and movement constraints in Russian. In *Papers from the ninth regional meeting, chicago linguistic society*, 291–304. University of Chicago.

Erteschik-Shir, Nomi, Lena Ibnbari, and Sharon Taube. 2013. Missing objects as Topic Drop. *Lingua* 136: 145–169.

Farkas, Donka. 2010. The grammar of polarity particles in Romanian. In *Edges, heads, and projections: Interface properties*, eds. Anna Maria Di Sciullo and Virginia Hill, 87–124. Amsterdam: John Benjamins.

Farkas, Donka, and Kim Bruce. 2010. On reacting to assertions and polar questions. *Journal of Semantics*.

Farkas, Donka, and Floris Roelofsen. 2015. Polarity particle responses as a window onto the interpretation of questions and answers. *Language* 2 (91): 359–414.

Fiengo, Robert, and Robert May. 1994. *Indices and identity*. Cambridge, MA: MIT Press.

Fowler, George. 1994. Verbal prefixes as functional heads. *Studies in the Linguistic Sciences* 24 (1).

Georgi, Doreen, and Gereon Müller. 2010. Noun-phrase structure by Re-Projection. *Syntax* 13 (1): 1–36.

Goldberg, Lotus. 2005a. On the verbal identity requirement in VP ellipsis. Presented at the *Identity in Ellipsis* workshop at UC Berkeley.

Goldberg, Lotus. 2005b. Verb-stranding vp ellipsis: A cross-linguistic study. PhD diss, McGill University.

Grebenyova, Lydia. 2006. Sluicing puzzles in Russian. In *Proceedings of the annual workshop on formal approaches to slavic linguistics 14*, eds. James Lavine, Steven Franks, Mila Tasseva-Kurktchieva, and Hana Filip, 157–171. Ann Arbor. Michigan Slavic Publications. Michigan Slavic Publications.

Grebenyova, Lydia. 2007. Sluicing in Slavic. *Journal of Slavic Linguistics* 15 (1): 49–80.

Gribanova, Vera. 2013a. A new argument for verb-stranding verb phrase ellipsis. *Linguistic Inquiry* 44 (1): 145–157.

Gribanova, Vera. 2013b. Verb-stranding verb phrase ellipsis and the structure of the Russian verbal complex. *Natural Language and Linguistic Theory* 31 (1): 91–136.

Hall, David. 2015. Spelling out the noun phrase: Interpretation, word order, and the problem of 'meaningless movement'. PhD diss, Queen Mary University of London.

Harizanov, Boris. 2014a. Clitic doubling at the syntax-morphophonology interface: A-movement and morphological merger in Bulgarian. *Natural Language and Linguistic Theory* 4 (32): 1033–1088.

Harizanov, Boris. 2014b. On the mapping from syntax to morphophonology. PhD diss, University of California, Santa Cruz.

Harley, Heidi. 2004. Merge, conflation, and head movement. In *Proceedings of the 34th annual meeting of the North-Eastern Linguistic Society*, eds. Keir Moulton and Matthew Wolf, 239–254. University of Massachusetts, Amherst: Graduate Linguistics Student Association.

Hartman, Jeremy. 2011. The semantic uniformity of traces: Evidence from ellipsis parallelism. *Linguistic Inquiry* 42 (3): 367–388.

Harves, Stephanie. 2002. Genitive of negation and the syntax of scope. In *Proceedings of ConSOLE IX*, eds. M. van Koppen, E. Thrift, E. J. van der Torre, and M. Zimmerman, 96–110.

Heim, Irene. 1997. Predicates or formulas? Evidence from ellipsis. In *Proceedings from Semantics and Linguistic Theory VII*, ed. Aaron Lawson, 197–221. Cornell, Ithaca: CLC Publications.

Holmberg, Anders. 2001. The syntax of yes and no in Finnish. *Studia Linguistica* 55 (2): 140–174.

Holmberg, Anders. 2013. The syntax of answers to polar questions in English and Swedish. *Lingua* 128: 31–50.

Jones, Bob Morris. 1999. *The Welsh answering system*. Berlin, New York: De Gruyter Mouton.

Kallestinova, Elena. 2007. Aspects of word order in Russian. PhD diss, University of Iowa.

Kazenin, Konstantin. 2006. Polarity in Russian and typology of predicate ellipsis. Moscow State University.

King, Tracy Holloway. 1995. *Configuring topic and focus in Russian*. Stanford: CSLI Publications.

Kolesnikova, Svetlana. 2014. *Russkie časticy. Semantika, grammatica, funkcii*. Flinta.

Koopman, Hilda, and Anna Szabolcsi. 2000. *Verbal complexes*. Cambridge, MA: MIT Press.

Kramer, Ruth, and Kyle Rawlins. 2011. Polarity particles: an ellipsis account. In *Proceedings of the North East Linguistic Society 39*, eds. Suzi Lima, Kevin Mullin, and Brian Smith. Amherst: GLSA.

Krifka, Manfred. 2011. How to interpret "expletive" negation under *bevor* in German. In *Language and logos. Studies in theoretical and computational linguistics*, eds. T. Hanneforth and G. Fanselow, 214–236. Akademie Verlag.

Laka, Itziar. 1990. Negation in syntax: on the nature of functional categories and projections. PhD diss, MIT.

Laleko, Oksana. 2010. Negative-contrastive ellipsis in Russian: Syntax meets information structure. In *Formal Studies in Slavic Linguistics*, eds. Anastasia Smirnova, Vedrana Mihaliček, and Lauren Ressue, 197–218. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Lambova, Mariana. 2004. On triggers of movement and effects at the interfaces. In *Studies in generative grammar, 75: Triggers*, eds. Anne Breibarth and Henk C. van Reimsdijk, 231–258. Walter de Gruyter.

Landau, Idan. 2006. Chain resolution in Hebrew (V)P-fronting. *Syntax* 9 (1): 32–66.

Langacker, Ronald. 1966. On pronominalization and the chain of command. In *Modern studies in english*, eds. David A. Reibel and Sanford A. Schane, 160–186. New Jersey: Prentice-Hall.

Lasnik, Howard. 2001. When can you save a structure by destroying it? In *Proceedings of the North East Linguistic Society 31*, eds. Min-Joo Kim and Uri Strauss, 301–320. Amherst, MA: GLSA.

Lechner, Winifred. 2007. Interpretive effects of head movement. http://ling.auf.net/lingBuzz/000178.

Lipták, Anikó. 2012. V-stranding ellipsis and ~~verbal~~ identity: the role of polarity focus. In *Linguistics in the Netherlands 2012*, eds. Marion Elenbaas and Suzanne Aalberse, 82–96. Amsterdam: John Benjamins.

Lipták, Anikó. 2013. The syntax of emphatic positive polarity in Hungarian: evidence from ellipsis. *Lingua* 128: 72–92.

Matushansky, Ora. 2006. Head movement in linguistic theory. *Linguistic Inquiry* 1: 69–109.

McCloskey, James. 2011. The shape of Irish clauses. In *Formal approaches to Celtic linguistics*, ed. Andrew Carnie, 143–178. Cambridge Scholars Publishing.

McCloskey, James. 2012. Polarity, ellipsis and the limits of identity in Irish. Workshop on Ellipsis, Nanzan University. http://ohlone.ucsc.edu/~jim/PDF/nanzan-handout.pdf.

Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands and the theory of ellipsis*. Oxford: Oxford University Press.

Merchant, Jason. 2006. Why no(t)? *Style* 20 (1-2): 20–23.

Merchant, Jason. 2008. Variable island repair under ellipsis. In *Topics in ellipsis*, ed. Kyle Johnson, 132–153. Cambridge: Cambridge University Press.

Merchant, Jason. 2013a. Polarity items under ellipsis. In *Diagnosing syntax*, eds. Lisa Lai-Shen Cheng and Norbert Corver, 441–462. Oxford: Oxford University Press.

Merchant, Jason. 2013b. Voice and ellipsis. *Linguistic Inquiry* 44 (1): 77–108.

Merchant, Jason. To appear. Ellipsis: A survey of analytical approaches. In *The oxford handbook of ellipsis*, eds. Jeroen Van Craenenbroeck and Tanja Temmerman. Oxford: Oxford University Press.

Messick, Troy, and Gary Thoms. 2016. Ellipsis, economy and the (non)uniformity of traces. *Linguistic Inquiry* 47 (2): 306–332.

Milićević, Nataša. 2006. On negation in yes/no questions in Serbo-Croatian. In *UiL OTS working papers 2006*, eds. Jakub Dotlacil and Berit Gehrke, 29–47.

Ngonyani, Deo. 1996. VP ellipsis in Ndendeule and Swahili applicatives. In *Syntax at Sunset, UCLA working papers in syntax and semantics, Number 1*, eds. Edward Garrett and Felicia Lee, 109–128. Department of Linguistics, UCLA.

Pesetsky, David. 1982. Paths and categories. PhD diss, MIT.

Piñón, Christopher. 1991. Presupposition and the syntax of negation in Hungarian. In *Papers from the 27th regional meeting of the Chicago Linguistic Society 1991, part two: The parasession on negation*, eds. Lise M. Dobrin, Lynn Nichols, and Rosa M. Rodriguez, 246–262.

Pollock, Jean-Yves. 1989. Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20: 365–424.

Pope, Emily. 1976. Questions and answers in English. PhD diss, MIT.

Preminger, Omer, and Maria Polinsky. 2015. Agreement and semantic concord: a spurious unification.

Progovac, Ljiljana. 1994. *Negative and positive polarity*. Cambridge: Cambridge University Press.

Progovac, Ljiljana. 2005. Negative and positive feature checking and the distribution of polarity items. In *Negation in slavic*, eds. Sue Brown and Adam Przepiórkowski, 179–217. Bloomington, IN: Slavica Publishers.

Roberts, Ian. 2010. *Agreement and head movement: Clitics, incorporation, and defective goals*. Cambridge, MA: MIT Press.

Rooth, Mats. 1992. Ellipsis redundancy and reduction redundancy. In *Proceedings from the Stuttgart Ellipsis Workshop*, eds. S. Berman and A. Hestvik. Arbeitspapiere des Sonderforschungsbereichs 340, No. 29.

Sadock, Jerold, and Arnold Zwicky. 1985. Speech act distinctions in syntax. In *Language typology and syntactic description, volume i, clause structure*, ed. T. Shopen, 155–196. Cambridge: Cambridge University Press.

Santos, Ana Lúcia. 2009. *Minimal answers. ellipsis, syntax and discourse in the acquisition of Europian Portuguese*. Amsterdam/Philadelphia: John Benjamins.

Schachter, Paul. 1977. Does she or doesn't she? *Linguistic Inquiry*.

Schoorlemmer, Erik, and Tanja Temmerman. 2012. Head movement as a PF-phenomenon: evidence from identity under ellipsis. In *Proceedings of the 29th West Coast Conference on Formal Linguistics*, eds. Jaehoon Choi, E. Alan Hogue, Jeffrey Punske, Deniz Tat, Jessamyn Schertz, and Alex Trueman, 232–240. Somerville, MA: Cascadilla Press.

Sekerina, Irina. 1997. The syntax and processing of split scrambling constructions in russian. PhD diss,

CUNY Graduate School.

Slioussar, Natalia. 2011. Russian and the EPP requirement in the tense domain. *Lingua* 121 (14): 2048–2068.

Svenonius, Peter. 2004. Slavic prefixes inside and outside VP. *Nordlyd* 32 (2): 205–253.

Szabolcsi, Anna. 2011. Certain verbs are syntactically explicit quantifiers. In *The Baltic international yearbook of cognition, logic and communication. volume 6, formal semantics and pragmatics: Discourse, context, and models*. http://cognition.lu.lv/symp/6-call.html.

Takahashi, Shoichi, and Danny Fox. 2005. MaxElide and the re-binding problem. In *Proceedings of Semantics and Linguistic Theory XV*, eds. Effi Georgala and Jonathan Howell, 223–240. Ithaca, New York: CLC Publications.

Tovena, L. M. 1995. An expletive negation which is not so redundant. In *Grammatical theory and romance languages: selected papers from the 25th linguistic symposium on Romance languages*, ed. Karen Zagona, 263–274. Amsterdam: John Benjamins.

Van Gelderen, Véronique. 2003. *Scrambling unscrambled*. Utrecht: LOT Publications.

Vicente, Luis. 2009. An alternative to remnant movement for partial predicate fronting. *Syntax* 12 (2): 158–191.

Zanuttini, Raffaella. 1997. *Negation and clause structure: A comparative study of Romance languages*. Oxford University Press.