What’s Inside VP? New (and old) Evidence from Russian

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In a derivational approach to syntax, there are two logical possibilities for the underlying internal structure of ditransitive VPs with one Dative and one Accusative internal argument: Dative above Accusative or Accusative above Dative. Given the fact that in Russian, the word order patterns V>ACC>DAT and V>DAT>ACC are both perfectly grammatical, as shown in (1), it is clear that either order could, in principle, be the derivational source of the other.

(1) a. Vanya otpravil pis’ma studentam
    Vanya sent letters\textsubscript{ACC} students\textsubscript{DAT}
    ‘Vanya sent (the) letters to (the) students.’

   b. Vanya otpravil studentam pis’ma
    Vanya sent students\textsubscript{DAT} letters\textsubscript{ACC}
    ‘Vanya sent (the) students (the) letters.’

And indeed, both “Higher Accusative” analyses (Bailyn & Rubin, 1991, Bailyn 1995a,b -- see (2) and “Higher Dative” analyses (Franks 1995, Junghanns & Zybatow 1997, Pereltsvaig 2001, Dyakonova 2005, 2007 – see (3)) have been proposed.

(2) Internal Structure of VP: “Higher Accusative”

\begin{center}
\begin{tikzpicture}
\tikzset{level distance=1cm\baselineskip}
\tikzstyle{level 1}=[level distance=4.5cm, \baselineskip]
\tikzstyle{level 2}=[sibling distance=3cm]
\tikzstyle{level 3}=[sibling distance=2cm]

\node {VP}
    child {node {Spec \hspace{2cm} V'}}
    child {node {ACC \hspace{2cm} XP \hspace{2cm} DAT}}

\begin{scope}[xshift=5cm]
\node {V'
    child {node {Spec \hspace{2cm} Vk \hspace{2cm} XP \hspace{2cm} DAT}}
\end{scope}
\end{tikzpicture}
\end{center}
(3) Internal Structure of VP: “Higher Dative”

The two approaches share many core assumptions about syntactic structure and derivation: binary branching, Short Verb Movement from $V \rightarrow v$ (Bailyn 1995b), Thematic Uniformity (Baker 1988, 1997), a derivational relationship between (1)a and (1)b, and some kind of local A-scrambling to account for the word order that is not base-generated under that approach, as shown here:

(4) Dat > Acc order under “Higher Accusative” approach (derives (1)b):

(5) Acc > Dat order under “Higher Dative” approach (derives (1)a):

That the reordering process is A-movement is shown by the successful binding ability it acquires (under either approach), as seen in (6):
(6) a. Ivan predstavil Petrovych drug drugu ACC-DAT
   Ivan introduced PetrovysACC each otherDAT
b. Ivan predstavil Petrovym drug druga DAT-ACC
   Ivan introduced PetrovSDAT each otherACC
   ‘Ivan introduced the Petrovs to each other.’ (gloss for both a,b)

In this paper, I will defend arguments from previous literature (Bailyn 1995 a,b) that the Higher ACC approach shown in (2) and (4) is the correct one, discuss potential evidence in favor of the opposite approach (especially from Pereltsvaig 2001 and Dyakonova 2005, 2007) and conclude with new evidence in favor of Higher Accusative.

1. The original syntactic evidence for Higher Accusative

Bailyn 1995a,b argues that Instrumental adjunct secondary predicates support the Higher ACC approach because ACC arguments can control into such clauses whereas DAT and other oblique arguments cannot. This is shown in (7).

Instrumental secondary predicates

(7) a. Maša našla Sašu golym.
    Masha, found Sashak-ACC nudek-INSTR
    ‘Masha found Sasha nude.’

    Masha, helped Sashak-DAT nudek-INSTR
    ‘Masha helped Sasha nude.’

    Masha, telephoned Sashak-DAT nudek-INSTR
    ‘Masha telephoned Sasha nude.’

d. *Maša boitsja Saši golym.
    Masha, fears Sashak-GEN nudek-INSTR
    ‘Masha fears Sasha nude.’

e. *Maša posmotrela na Sašu golym.
    Masha, looked at Sasha k nudek-INSTR
    ‘Masha looked at Sasha nude.’
In transitives, the ACC object can control, as in (7)a. In ditransitives with two potential VP internal controllers, the ACC but not the DAT can control, as in (8). On the Higher ACC account, these facts follow on standard assumptions about adjunction (such as Adger 2003). A possible structure for (8) is (9), where the DAT is too low to control:

(9) Structure of (8):

The Higher DAT response counters that DAT can sometimes control: “even though dative arguments are illicit controllers for Instrumental clauses, they have no problem to control into agreeing clauses or purpose clauses” (Dyakonova 2005 p17, my emphasis). (Note the explicit admission that Higher DAT cannot explain (7)-(8).) Consider the facts in (10):

1I assume subject control results from higher attachment of the adjunct.
(10) **Agreeing 2nd pred:**

Agreeing secondary predicate ('upset'), whose distribution is not restricted by the case of the controller. Contrast (10) with the inability of the DAT in (7)b-c and (8) to control. (11) shows a DAT indirect object apparently controlling a purpose clause PRO subject. However, the success of (10)-(11) does not bear on the issue in (8).

First, Bailyn 2001, Madariaga 2006 and Pereltsvaig 2007 provide evidence that agreeing secondary predicates are appositives, based on the following facts: (i) agreeing SCs are always located closer to the head than Instrumental SCs, (ii) agreeing SCs are structurally freer, (iii) only agreeing SCs can be located inside PP. This being the case, it would be expected that agreeing SCs are not restricted by controller case.

Second, purpose clauses may not involve syntactic control at all, as seen in (12) where the purpose clause refers to a missing subject.

(11) **Purpose Clause:**

Purpose clauses may not involve syntactic control at all, as seen in (12) where the purpose clause refers to a missing subject.

So the success of (11) tells us little about the internal structure of VP. Therefore, neither of the examples of DAT control bears on the issue of Instrumental small clauses. INSTR phrases are clearly not appositives, nor do they allow implicit controllers, and the control symmetry remains unexplained in a Higher Dative account. The original argument stands.\(^2\)

\(^2\)Appealing to the Movement Theory of Control (Hornstein 1999) changes nothing: on such a view, the controller must be able to move into ACC but not DAT position. Such a distinction falls out only on the Higher ACC account.
The other strong original argument for Higher Accusative concerns an asymmetry in reciprocal binding possibilities, which the Higher Dative account cannot explain. The crucial facts are given in (13):

**B. Reciprocal Binding:**

(13) a. Ivan predstavil Petrovyx drug drugu ACC-DAT
    Ivan introduced PetrovsACC each otherDAT
    ‘Ivan introduced the Petrovs to each other.’ (base structure)

    b. Ivan predstavil Petrovym drug druga DAT-ACC
    Ivan introduced PetrovsDAT each otherACC
    (derived from (14)b, ok after movement)

(14) a. ?Ivan predstavil drug drugu Petrovyx DAT-ACC
    Ivan introduced each otherDAT PetrovsACC
    (derived from (13)a, ok before movement)

    b.*Ivan predstavil drug druga Petrovym ACC-DAT
    Ivan introduced each otherACC PetrovsDAT
    (out as base structure)

On the Higher Accusative account, (13)a and (14)b are underived orders. In (13)a c-command holds, satisfying Principle A. (14)a is then derived from (13)a by local A-motion. Assuming Principle A is derivational, (14)a is well-formed before A-mvt and (13)b is well-formed after A-mvt from (14)b. Only (14)b is out. This falls out from the Higher Accusative account, because Principle A is never satisfied. Since derivational binding is needed to derive (13), Higher Dative predicts the opposite results in (14). (Kaiser (2002) shows the identical contrast in Finnish.)

This finding has since been supplemented by facts from Russian binding in Asarina (2005), Testelets (2001) and others, as in (15):

(15) a. Sud'ba prednaznačala nas drug drugu
    Fate,NOM predestined usACC [each other]k,DAT
    ‘Fate predestined us for each other.’ (Testelets 2001)
b. *Sud’ba prednaznačala nam druga
   FateNOM predestined usDAT [each other]k-ACC
   ‘Fate predestined us for each other.’ (Testelets 2001)

Higher Dative approaches do not give an account for any of the facts in (13)-(15). Rather, they present other binding facts that apparently support Higher Dative. However, a closer look reveals that these fact do not show what they seem to show. Consider (16) (from Pereltsvaig 2001):

(16) a. Vanya poslal vračam pacientov druga
   Vanya sent doctorsDAT [patientsACC each otherGEN]
   ‘Vanya sent the doctors each other’s patients.’

b. *Vanya poslal pacientov vračam druga
   Vanya sent patientsACC [doctorsDAT each otherGEN]
   ‘Vanya sent the patients to each other’s doctors.’

The claim based on (16) is that the Dative in (16)a can bind into the Accusative, whereas the reverse is not true in (16)b. This looks to be the opposite of the facts shown above. However, the problem with (16)b is not related to binding, but rather to the specific needs of the verb ‘send’. Even without a reciprocal, the order in (16)b is degraded, as in (17)a:

(17) a. ???Vanya poslal pacientov vračam
   Vanya sent patientsACC [doctorsDAT]
   ‘Vanya sent the patients to the doctors.’

b. Vanya poslal pacientov k vračam druga
   Vanya sent patientsACC to [doctorsDAT each otherGEN]
   ‘Vanya sent the patients to each other’s doctors.’

This verb prefers to express the goal with a PP as in (b), in which case binding is fine, as expected. So Accusatives can in fact bind into GOAL expressions, just as some raised Datives can bind into Accusative THEME expressions. This renders (16) irrelevant. And the asymmetries shown above in (7)-(9) and (13)-(15) still all support the Higher Accusative account. The original argument stands.
2. Is there Evidence for Higher Dative? Thematic/Discourse Claims

Dyakonova (2005) discusses additional evidence for Higher Dative, in 2 areas: (i) Constituency and (ii) Thematic and Information Structure. In the latter, Dyakonova follows Junghanns & Zybatow 1997 and in some ways Pylkkänen 2000 in claiming that the semantics underlying any Thematic Hierarchy supports Higher Dative. While this may be true for constructions involving Experiencers, which are generally assumed to be external arguments, only by stipulation would it support Higher Dative within VP for ditransitives. Baker (1988, 1997), Larson (1988), Baltin (2003) and others have argued for the opposite result. Further, it is clearly the case that if one of the arguments appears as a PP, the basic order is Theme>Goal, which, if we want to maintain a uniform Thematic Hierarchy, supports Higher Accusative. Thus Thematic Hierarchy claims are at least inconclusive, or speak in favor of Higher Accusative.

Similar problems plague the claim that Information Structure facts support Higher Dative (Junghanns & Zybatow 1997, Dyakonova 2005, 2007). Dyakonova presents (18) in favor of Higher Dative:

(18) a. Nastya kupila Sergeju mašinu
   Nastya bought SergeiDAT carACC
   ‘Nastya bought Sergei a car.’

   b. Nastya kupila mašinu Sergeju
      Nastya bought carACC SergeiDAT
      ‘Nastya bought a car for Sergei.’

Dyakonova argues as follows:

the (a) sentence in (18) can have either a narrow focus on the Theme, or a wide focus. (b), on the other hand, can only have narrow focus on the Goal and the Theme tends to be interpreted as given information. This makes me conclude that the order in (b) is better analyzed as being derived from (a) by scrambling to ensure distressing of the most deeply embedded constituent. This implies that the basic order of arguments in Russian is Goal > Theme rather than the opposite. (Dyakonova 2005, p. 10. emphasis mine)

The problem here is that ‘buy’ is not a standard ditransitive verb. The Dative phrase Sergei can behave as an adjunct (since the transitive sentence without it is fully grammatical) and thus it is difficult to
determine whether the two sentences here in fact have the same argument structure. It is also difficult to determine the role of proper names and animacy in Information Structure generally, so that the conclusion presented, based on one sentence, is not necessarily generalizable. Consider, in this regard, a similar situation with ‘introduce’ in (19) and ‘give’ in (20) (which are ditransitive):

(19) Nastya predstavila Sergeja prepodavateljam
Nastya-Nom introduced Sergei_{ACC} teachers_{DAT}
‘Nastya introduced Sergei to the teachers.’
(OK as wide Focus, answer to ‘What happened?’)

(20) a. Nastya často darit knigi druz’jam
Nastya often gives books_{ACC} friends_{DAT}
‘Nastya often gives books to (her) friends.’

b. Nastya často darit druz’jam knigi
Nastya often gives friends_{DA} books_{ACC}
‘Nastya often gives (her) friends books.’

(19) and (20)a, both ACC > DAT, are ambiguous between narrow and wide focus. Using Dyakonova’s logic, this would argue for Higher ACC, and we would have a paradox, if (18) in fact shows the opposite. However, if we use true ditransitive verbs with bare plurals (the most discourse neutral elements), we find that DAT > ACC order is derived, since in (20)b the only reading is one where ‘friends’ is narrowly focused, implicating movement. This argues for Higher Accusative.

3. Is there Evidence for Higher Dative? Constituency Claims

Dyakonova (2005, 2007) argues for Higher Dative based on evidence from Idiom formation and Topicalization. Both arguments claim to show that V + Acc forms a constituent to the exclusion of Dative, which then reflects a Higher Dative. The idiom argument is simple: typically, idioms in Russian consist of a V + Accusative THEME and not a V + Dative GOAL. In a corpus search, Dyakonova (2005) found 394 of 400 Russian idioms to be V+Acc, such as (21) (her example) or (22) a ditransitive example. Dyakonova concludes as follows: “I take this as evidence that a Goal argument is projected outside the lexical VP in Russian”.

(21) On večno vstavlyaet nam palki v kolesa
he-Nom always puts usDAT sticksACC into wheels
‘He always impedes us.’

(22) a. Saša stroit glazki devuškam
Sasha makes eyesACC girlsDAT
‘Sasha flirts with (the) girls.’

b. Saša stroit devuškam glazki
Sasha makes girlsDAT eyesACC
‘Sasha flirts with (the) girls.’

The prevalence of V+Acc idioms is not in dispute. However, whether it is
evidence for Higher Dative requires consideration of how the grammar
handles idioms. Clearly, idioms do not have a compositional semantics
(Jackendoff 1997) and must somehow be lexically ‘listed’. However, it
is not clear at what level idiom chunk interpretation is enforced: is this in
the lexicon per se or is it part of the interpretive component? In Chomsky
1995 and Fox and Nissenbaum 2004 it is assumed that LF adjacency is
required for idiom interpretation; their theory of reconstruction is
partially based on this assumption. If they are right, then after V raises to
v, adjacency is only possible on a Higher Accusative approach, not a
Higher Dative approach. Dyakonova does not discuss this issue.3 At the
very least, then, the idiom formation data is inconclusive about
underlying structure.

Finally, Dyakonova offers the following contrast in Topicalization
possibilities to argue that V+Acc forms a constituent without the Dative:

(23) a. [čitat’ skazki] roditeli detjam očen’ ljubjat.
to read talesACC parentsNOM kidsDAT very love
‘To read fairy tales, parents to children love __.’

3 An additional complication involves the fact that it is unclear what movements
allow idioms to maintain their idiosyncratic meaning. Usually it is assumed A-
movement (of the object) maintains idiomatic meaning and A’-does not
(Miyagawa 1997) but there is no discussion in the literature of the issue of V
raising out of VP into vP in this regard. I leave this issue for separate discussion.
b. ??/*[čitat’ detjam] roditeli skazki očen’ ljubjat.
   to read kids_{DAT} parents_{NOM} tales_{ACC} very love
   ‘To read to children, parents fairy tales love __.’

(23) shows contrasting cases of Russian vP Topicalization (which is only possible when they are non-finite, so the structure must be bi-clausal for this to be possible.) Here, the higher verb is ‘love to’ and the embedded verb is ‘read’, taking two arguments – a THEME and (arguably) a GOAL. Dyakonova (2005: 11) reasons as follows:

Topicalization can apply either to the entire sequence, or else ... target the verb and the Theme. Extracting the verb with the Goal results in ungrammaticality, which I attribute to the fact that the verb does not form a constituent with the Goal to the exclusion of the Theme.

This argument suffers from the same problem as before – except that in this case not taking V→v into consideration is fatal to the claim. Clearly, Topicalization must apply after V→v raising (or the requirement that V raises to v would never be satisfied). Thus, a Higher Dative account has pre-movement order V>Dat>Acc (and Higher Accusative has V>Acc>Dat). The argument for V+Acc constituency does not apply, since at the time of movement, there is no such constituency. Rather, we are dealing with remnant movement, after evacuation by the other argument, and the two approaches in fact do not make distinct claims. Certainly, there is no argument here in favor of Higher Dative, since after evacuation, either argument could in theory be left in the remnant.

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4 As with ‘buy’ above, ‘read’ here is not truly ditransitive; the Dative may not be a true argument. However, the Higher Dative account falls apart anyway, as I show below, and the same counter-arguments would hold with true ditransitives.

5 Note that V→v is not parameterized. See Larson 1988, Bowers 1993, and Adger 2003 for accounts of what forces V→v. Any account that uses the SpecV position for internal arguments language must assume obligatory application of V→v to generate the correct word order. Lasnik (2001) has argued that some head movement requirements can be ‘forgiven’ in cases of ellipsis (such as T→C in English sluicing), but only if the offending feature is deleted under ellipsis. Movement (TOP) does not have this ability, and it cannot therefore be claimed that TOP occurs in place of the required head movement.
One must wonder, then, why the contrast in (23) exists. Why is extracting the Dative and then fronting the remnant vP including the Accusative far more acceptable than the opposite? The vP fronting involved is the same. The evacuation itself could not be the problem, since without vP fronting, both evacuations are possible:

(24) a. Detjam, roditeli očen’ ljubjat čitat’ skazki
   kids\textsubscript{DAT} parents\textsubscript{NOM} very love to read tales\textsubscript{ACC}
   ‘To children, parents love to read fairy tales.’

   b. Skazki, roditeli očen’ ljubjat čitat’ detjam
    tales\textsubscript{ACC} parents\textsubscript{NOM} very love to read kids\textsubscript{DAT}
   ‘Fairy tales, parents love to read to children.’

However, it has been independently shown that derived order in a structure involving 2 previous movements must be parallel to the order established at an earlier domain (Fox and Pesetsky’s 2005 “Cyclic Linearization”). If so, then the order possible in (23)a but not (23)b, must reflect the original order. The acceptable order after movement is $V>\text{Acc}>\text{Dat}$. Cyclic Linearization therefore points to Higher Accusative!

We have seen in Section 2-3 that none of the arguments for Higher Dative given in the recent literature withstand careful examination, while Section 1 showed that the original arguments for Higher Accusative stand. I now turn to some new evidence in favor of Higher Accusative.

4. More Evidence for Higher Accusative

Consider the situation with Weak Crossover (WCO). As is well-known, a violation is caused when A’-movement over a phrase containing a co-referent pronoun takes place. This applies both to overt and covert A’-movement, as shown in the English examples in (25):

(25) a. *Who\textsubscript{i} does [his\textsubscript{i}, mother] love?
   b. *His\textsubscript{i}, mother loves [everyone],

In Russian, the same violations occur, both with quantifiers (shown by Antonyuk (2006, 2009) to undergo QR) or with overt movement:
Now consider the facts when movement occurs out of a ditransitive phrase in which the non-moved argument contains a coreferent pronoun:

(27) a. *Kogo ty xočes', čtoby Maša predstavila [ego, novym sosedjam] [his new neighbors]DAT

‘Who do you want Masha to introduce to his new neighbors?’

Here, we find a clear contrast between the availability of moving an ACC WH-phrase out if the DAT contains a coreferent pronoun ((27)a) vs. moving a DAT WH-phrase out if the ACC contains a co-referent pronoun ((27)b). The extraction in (27)a does not cause a violation on Higher ACC only, because there is no crossover at all; the derivation is similar to English subject WH-movement such as in *Who loves his mother the most?* which resembles (27)a only if we assume a Higher
ACC base. On the other hand, (27)b involves a WCO violation, but only if we assume a Higher ACC base. Thus the Higher ACC account predicts the contrast; the Higher DAT account predicts the opposite.

Finally, Antonyuk 2006, 2009 has shown a significant scope difference between Dat>Acc and Acc>Dat VP-internal orders. In particular, Acc>Dat orders are scopally ambiguous, implicating a non-moved structure, whereas Dat>Acc orders show surface scope, implicating the scope freezing effects of overt movement, known from standard scrambling cases. The relevant facts are given here:

(28) a. Kto-to uslyšal každujš Štuku
   Someone heard every joke
   ‘Someone heard every joke’ (∃∀), (∀∃)

   b. [Každujš Štuku], kto-to uslyšal ti
   Every joke someone heard
   ‘Every joke, someone heard’ (∀∃), (*∃∀)

(29) a. Učitel’ dal kakuju-to knigu každomu studentu
   Teacher gave [some book]ACC [every student]DAT
   ‘The teacher gave some book to every student’ (∃∀), (∀∃)

   b. Učitel’ dal kakomu-to studentu každuju knigu
   Teacher gave [some student]DAT [every book]ACC
   ‘The teacher gave some student every book.’ (∃∀), (*∀∃)

The parallel in (28)-(29) suggest DAT > ACC is derived by movement, hence Scope Freezing, providing another new argument for Higher ACC.

6 Note that there is a complicating factor in that we have seen the availability of local A-movement of DAT over ACC. One might wonder, then, why the availability of such local A-movement does not allow us to void the WCO violation in (27)b. I assume that whatever discourse factors motivate local A-scrambling would apply superfluously in this case, causing an Economy violation if applied here. In any event, the contrast stands, and speaks strongly in favor of Higher ACC.

7 A reviewer argues that accounts such as Marantz 1993, whereby the THEME is stranded within VP, allow a Higher DAT approach to explain this contrast. However, Larson 1990 shows that Marantz’s approach fails even for English.
5. Conclusion

We have seen in this article that the original syntactic evidence for Higher ACC remains unrefuted. In particular, control of Instrumental small clauses and reciprocal binding facts support Higher ACC. Binding arguments presented by Higher DAT advocates only motivate the existence of Dative shift (A-mvt around ACC), but do not motivate a DAT>ACC base. Further, thematic hierarchy and Information Structure arguments are inconclusive. Constituency arguments in favor of Higher DAT do not take V→v movement into consideration which, when factored in, also favor Higher ACC. Finally, we have seen new WCO and Scope Freezing evidence supporting Higher ACC.

References:

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