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BASE-GENERATED OR DERIVED? HERE'S HOW TO TELL STRUCTURES APART IN RUSSIAN.

The paper argues that *the Scope Freezing Diagnostic* (Antonyuk 2015; 2020) is an accurate test of relative argument relations and a reliable diagnostic for base-generated structures in Russian. An important novel finding reported here is that a vP-internal argument permutation, *Argument Inversion*, is mediated by Animacy, leading to the promotion of the lower [+Animate] argument to a position c-commanding its co-argument. Crucially, such permutations are shown here to result in an order that allows Focus projection, and one that is widely perceived to be discourse-neutral, hence routinely analyzed as underived. The diagnostic is argued to be a more accurate test of argument relations than other syntactic tests proposed in the literature, as well as a valuable diagnostic overall, one that has helped uncover Animacy as a pervasive and previously unrecognized confound on Information Structure and its complex interactions with argument structure in Russian. Theoretical and methodological implications of our findings are discussed.

Keywords: the Scope Freezing Diagnostic; Russian; Information Structure; Argument Structure; Focus spreading; scope freezing; Animacy; Ditransitive Alternation.

1 INTRODUCTION

Traditional linguistic approaches to Russian free word order as well as formal linguistic approaches share in common the belief, grounded in empirical observations and native speaker intuitions, that discourse neutral orders are the more basic ones in that they occur in a greater number of contexts than the non-discourse neutral orders and also do not require special discourse licensing (Isačenko 1966; Sirotinina 1965/2003; Bailyn 1995; Franks 1995; Junghanns & Zybatow 1997, Slioussar 2007, Yokoyama 1986, i.a.). Discourse neutrality is thus widely believed to indicate base generation as far as the linearization of arguments

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is concerned and is therefore routinely used as a diagnostic tool to probe argument structure relations. In this paper we argue that the heuristic underlying such tests, namely ‘*discourse neutrality = non-derived word order*’ is not always correct (at least as far as Russian is concerned) and that therefore discourse neutrality is not a good indication of underlying structural relations, a conclusion that can have profound implications for Slavic languages, in which word order and its permutations are inherently tied to discourse relations.

The empirical discovery at the heart of our claim that ‘discourse neutral’ orders in Russian occasionally represent derived word orders is related to a recently proposed test of relative argument structure relations dubbed *the Scope Freezing Diagnostic* (SFD) (Antonyuk 2015; 2020). Antonyuk (2015; 2020) has found that overt permutation of quantificational arguments inside the VP/vP in Russian leads to quantifier scope freezing of the kind familiar from English (see Larson 1990 originally for the Double Object Construction; Schneider-Zioga 1988 for the *Spray-Load* Alternation). Since doubly quantified sentences in Russian, as in English, are normally scopally ambiguous (Antonyuk 2015; 2019; Zanon 2015) and quantifier scope ambiguity under the right structural and pragmatic conditions is arguably the norm, the lack of expected scope ambiguity (i.e., surface scope freezing) is thus treated as a marked situation arising under special circumstances (see also Larson, Antonyuk and Liu 2019 on this point; Cf. Bruening 2001).¹ The fact that in Russian ditransitives one order of arguments within the vP is scopally ambiguous and the opposite order is (most often) surface scope frozen is then seen as the direct consequence of the overt argument QP crossing (per Antonyuk 2015).² The finding was used to probe underlying argument structure relations, with scope freezing (or *strong surface scope bias* for one particular group of verbs, see esp. Antonyuk 2020) thus always pointing to the derived nature of the relative order of arguments.

The validity of the diagnostic has been strongly supported by independent syntactic tests, which show that the three groups of Russian ditransitives identified on the basis of this diagnostic (see 1-3) are also singled out by the distinct behavior of the groups on other tests, e.g., unaccusativity diagnostics, shown in (4-6) with the Distributive *po* test.

¹ Cf. Ionin (2003), which famously argued that Russian is a rigid surface scope language, a claim partially retracted in Ionin’s later experimental work.

² Some arguments for why the permuted order of argument XPs in ditransitives must be the result of overt syntactic movement (as opposed to base-generation) can be found in Antonyuk (2015); (under review); Bailyn (2009); (2012); Dyakonova (2009), i.a.

(1) **Group 1:**

ACC > OBL (amb.)

OBL > ACC (frozen)

(2) **Group 2:**

OBL > ACC (amb.)

ACC > OBL (frozen)

(3) **Group 3:**

ACC > OBL (amb.)

OBL > ACC (amb., but: surface scope bias)

As shown originally in Pesetsky (1982), only direct objects of transitive predicates and subjects of unaccusatives may appear as objects of distributive *po* in Russian, while subjects of transitive and unergative predicates typically may not. According to this test then, only the objects of Groups 1 and 3 are true direct objects, whereas the Accusative-marked objects of Group 2 verbs, while morphologically indistinguishable from the direct objects of Group 1/3, must in fact occupy a distinct structural position. In fact, the apparent ‘direct’ objects of Group 2 verbs have been shown to consistently differ from the other two Groups in terms of their syntactic behavior on a range of diagnostics, argued to stem from a structurally lower initial position for such objects, with Accusative case being assigned by a null preposition (see Antonyuk 2015; 2020 for details).

- | | | | | | |
|---|---|--|-------------|---|----------------|
| (4) | Učitel’
Teacher
každ-omu
every-DAT.MSC | po-dari-l
PO-present-PST.MSC
student-u.
student-DAT.MSC | po
DISTR | tetradk-e
notebook-DAT.FEM | Group 1 |
| ‘The teacher presented a notebook to every student’ | | | | | |
| (5) | *Maša
Masha
(kak-im-to
some—INSTR.MSC.-IND | ugosti-l-a
treat-PST-FEM
pečen’je-m).
cookie-INSTR.MSC | po
DISTR | rebenk-u
child-DAT | Group 2 |
| ‘Masha treated each child to a cookie’ | | | | | |
| (6) | Maša
Masha
na
on | na-pisa-l-a
NA-write-PST-FEM
každ-oj
every-PREP.FEM | po
DISTR | slogan-u
slogan-DAT.MSC
sten-e
wall-PREP.FEM | Group 3 |
| ‘Masha wrote a slogan on every wall’ | | | | | |

Interestingly, for one group of ditransitives (i.e., Group 1, ex. 4 & 7), the SFD suggests that the arguments are merged in the following order: NP_{ACC} > NP_{DAT}. This is so since it is the order that is scope ambiguous while the reverse order, NP_{DAT} > NP_{ACC}, is scope frozen, hence derived (see 8). While this position, namely the structurally higher merge position of the direct object, has been independently and extensively argued for in the literature (e.g., Bailyn 1995; 2012, following Larson 1988), it nevertheless goes against the strong native speaker intuitions that the word order on which the Goal argument precedes the Theme (7a) represents the discourse neutral (DN) order, which can be given in response to the ‘*What happened?*’ question (Dyakonova 2009). The opposite order, the one the SFD indicates is the non-derived one (7b), in contrast is perceived to be relatively more *discourse marked* and as such not suitable as an answer to the ‘*What happened?*’ question-test. Thus, intuitions about discourse neutrality and the SFD directly contradict each other in cases such as (7), which casts doubt on the overall validity of the SFD, since the discourse neutrality and Focus projection tests have long been part of the Slavic syntactician’s toolbox and are thus considered to be beyond doubt.^{3,4}

(7) a. On kupil kakomu-to niščemu obed. (Dyakonova 2009)
 he_{NOM} buy_{PST.MASC} some beggar_{DAT} lunch_{ACC}
 ‘He bought some beggar a lunch.’

✓What’s up with Sergey? He looks so happy.

✓What did Sergey buy for some beggar on the street?

b. On kupil obed kakomu-to niščemu.
 he_{NOM} buy_{PST.MASC} lunch_{ACC} some beggar_{DAT}
 ‘He bought a lunch for some beggar.’

✓Who did Sergey buy a lunch for?

*What’s up with Sergey? He looks so happy.

³ See Cinque (1993); Reinhart (1995); Selkirk (1995); Zubizarreta (1998) i.a. on the relation between word order and Focus spreading and Stjepanović (1999) as a classic work on Slavic regarding the what-happened/word order/focus test.

⁴ See Grabska & Abels (2022) on the distribution of scope ambiguity and scope freezing in Polish which largely argues against the view of argument structure defended here.

- (8) a. On kupil kakomu-to niščemu každoe bljudo.
 he_{NOM} buy_{PST.MASC} some beggar_{DAT} every dish_{ACC}
 ‘He bought some beggar every dish.’

✓**Surface scope:** for some beggar x, for every dish y, he bought x y (the same beggar got every dish);

***Inverse scope:** for every dish x, for some beggar y, he bought x for y (beggars can vary with dishes).

- b. On kupil kakoe-to bljudo každomu niščemu.
 he_{NOM} buy_{PST.MASC} some dish_{ACC} every beggar_{DAT}
 ‘He bought some dish for every beggar.’

✓**Surface scope:** for some dish x, for every beggar y, he bought x for y (same dish for every beggar);

✓**Inv. scope:** for every beggar x, for some dish y, he bought x y (possib. a diff. dish for each beggar).

Section 2 of this paper will discuss novel evidence that provides key insight into the above clash which points to the previously unnoticed role that Animacy plays in Russian syntax, Information Structure and their interface. Section 3 briefly discusses theoretical and methodological significance of this finding. A brief section 4 offers our conclusions.

2 NOVEL EVIDENCE FOR THE ROLE OF ANIMACY IN SYNTAX AND IS OF RUSSIAN

The empirical claim of this paper is that the above situation (i.e., the clash between the SFD and the intuitions of Discourse Neutrality and Focus spreading, schematized in (9)) is nevertheless not an anomaly and also not an indication of a suspected unreliability of the SFD, as there turn out to be more contexts where the intuition of DN and the SFD clash, which, when viewed together, reveal a clear pattern, summarized in (10) below:

(9) the Clash between SFD and DN:

- V DPDAT >> DPACC scope frozen (<= must be derived)
 V DPDAT >> DPACC DN (<= must be basic/non-derived)!

(10) the Empirical Claims made:

- (i.) Argument Inversion is mediated by Animacy;

(ii.) raising the structurally lower [+Animate] argument via AI to a higher position, c-commanding its co-argument, does not disrupt Focus projection and results in a structure perceived as DN, hence routinely analyzed as base-generated.

Applied more broadly, the SFD suggests base-generation for a number of structures commonly analyzed as derived, with Animacy of the structurally lower argument undergoing AI (in the related derived structures) being what they all have in common. Sections 2.1-2.3 present the data and discussion of three such constructions, with the SFD providing an alternative account to the one widely adopted in the literature in each of these cases.

2.1 *Object Experiencers: Preslar (1998)*

Consider, for instance, the data in (11-12), (11) being due to Preslar (1998), which argues that the underlying direct object Experiencers in such constructions raise into the Spec,IP position to satisfy the EPP, crucially relying, among other things, on intuitions of DN in making the argument:

- (11) a. Sestru tošnilo ot ryby. **DN**
 sister_{ACC} nauseated from fish
 ‘The sister got nauseated from the fish’
 b. Ot ryby tošnilo sestru.
 from fish nauseated sister_{ACC}
 ‘The sister got nauseated from the fish’

Applying the SFD to Preslar’s examples in (11), we get (12a-b), with the two argument phrases realized as Quantifier Phrases (QPs):

- (12) a. Kakuju-to devušku tošnilo ot každygo bljuda.
 Some girl_{ACC} nauseated from every dish
 ‘Some girl was being nauseated from every dish’
 ✓**Surface scope:** one specific girl got sick from every dish in some
 relevant set of dishes;
 ***Inverse scope:** for every dish x, some girl y got sick from x (possib.
 different girl sick from each dish). <= **derived**
 b. Ot kakogo-to bljuda tošnilo každyju devušku.
 From some dish nauseated every girl_{ACC}

‘Every girl got nauseated from some dish’

✓**Surface scope:** for some dish *x*, for every girl *y*, *x* made *y* sick
(same dish for every girl);

✓**Inver. scope:** for every girl *x*, for some dish *y*, *x* got sick from *y*
(diff. dish could make each girl sick).

According to the SFD, the order of arguments in 12b (*ot*-PP > NP_{ACC}) is the base-generated order while overtly raising Object Experiencer QP across the PP argument causes scope freezing and is thus determined to be the derived order. Crucially, however, it is the order NP_{ACC} > *ot*-PP that is perceived as DN, this intuition being widely shared by naive native speakers and Russian linguists alike.

2.2 ‘Distant DO placement from the verb’: Sirotinina (1965/2003)/Bailyn (2012)

Bailyn (2012) discusses an interesting type of examples from traditional Russian literature, namely Sirotinina’s (1965/2003) examples involving “distant placement [of the DO from the verb]”, given in (13a-c):

- (13) a. vosproizvodit’ [u krolikov] arterioskleroz.
create [in rabbits] arterial sclerosis_{ACC}
‘create arterial sclerosis in rabbits’
- b. Pozval [k sebe] syna.
called [to self] son_{ACC}
‘He called his on [over] to him’
- c. dostal [iz karmana] rasčesku.
got [from pocket] comb_{ACC}
‘took a comb out of his pocket’

Bailyn motivates the analysis of PPs in (13a-c), given in brackets, as modificational rather than argumental, based on the fact that (i) the bracketed constituent is optional (in contrast to the direct object) and (ii) the PP is fairly free syntactically, with both preverbal and clause-final positions being possible. In fact, Bailyn notes, the vP/VP-internal position of the PP as in (13) is much harder to account for, on

the assumption that modificational PPs are vP-attached.⁵ Applying the SFD to (13a), we get the following:

- (14) a. Učenyje vosproizveli u kakoj-to porody každoe zaboľevanie.
 scientists created [in some breed] every illness
 ‘Scientists created in some breed every illness’
surface scope: there is a particular breed x, such that scientists created every illness y in x;
***inverse scope:** for every illness x, for every breed y, scientists created x in y.
- b. Učenyje vosproizveli kakoe-to zaboľevanie u každoj porody.
 scientists created some illness in every breed
 ‘Scientists created some illness in every breed’
Surface scope: for some illness x, for some breed y, scientists created x in y;
Inverse scope: for every breed x, for some illness y, scientists created y in x.

Surface scope freezing observed in (14a) opens up an interesting possibility that the PP originates not as a vP adjunct, but rather as the verb’s complement, a base position from which it can raise across the direct object via AI, and then arguably raise further from there to a preverbal position, thus accounting for all of the linearization possibilities discussed in Bailyn (2012), schematized in (15), (with irrelevant details omitted and movement only shown by including a moved constituent into angular brackets, e.g., <PP>):

- (15) [_{VP} PP [_{VP} <Subject> v+V [_{XP} <PP> X_(NULL) [_{VP} DP_{ACC} <V> <PP>]]]]

Crucially for our purposes here, the SFD suggests that the [+Animate] PP is merged low, then undergoes AI to yield the linearization in (13a), which we perceive to be the most DN one (Cf. Bailyn 2012 on this score).

2.3 Adversity impersonals: Lavine & Freidin (2002)

Finally, the same overall pattern is observed with adversity impersonals, with ex. (16)-(17) due to Lavine & Freidin (2002):

⁵ See Bailyn (2012) for a number of possibilities on how we can analyze these examples in a way that would allow us to maintain a configurational approach to phrase structure. Those possibilities do not include the one proposed here that is due to the SFD.

- (16) a. Soldata ranilo pulej. (DN)
 soldier_{ACC} wound_{PST.NON-AGR} bullet_{INSTR}
 ‘A soldier was wounded by a bullet’
- b. Pulej ranilo soldata.
 bullet_{INSTR} wound_{PST.NON-AGR} soldier_{ACC}
 ‘A soldier was wounded by a bullet’
- (17) a. Emu otrezalo nogu. DN
 him_{DAT} severed_{NON-AGR} leg_{ACC}
 ‘His leg was severed (not by a human agent).’
- b. #Nogu otrezalo emu.
 Leg_{ACC} severed him_{DAT}
 ‘His leg was severed’

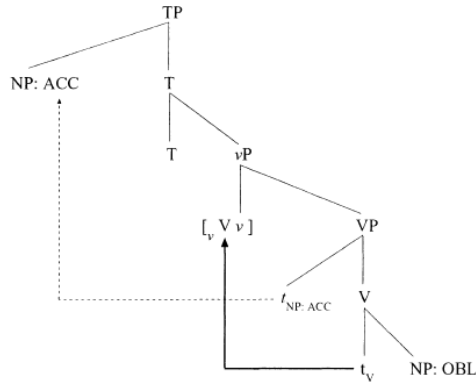
As argued by Lavine & Freidin, “discourse-neutral word-order is established by the location of the ACC or INST complement in a preverbal position” (2002, p.257). In our own judgment, (16a) and (17a) are the more neutral-sounding orders, that is, the two relative linearizations of co-arguments are not quite equal from a discourse point of view, and, secondly, it is crucially the advancement of the [+Animate] argument that yields the intuition of DN. In cases such as (17) where the [+Animate] argument is a pronoun, the ordering as in (17a) is not simply the DN one, it is the only felicitous one. This is true both in cases where only one argument is promoted, as in (17a), as well as when both arguments are raised, as in *Emu nogu otrezalo*; the order *Nogu emu otrezalo* only being acceptable on non-neutral prosody where *Nogu* is realized with the strongest stress and falling pitch accent, that is, in contrastive or corrective focus contexts. As shown in (18a-b), the practice of interpreting intuitions of DN and Focus spreading as being indicative of base-generation also clashes with the SFD for these examples:

- (18) a. Kakomu-to parnju otrezalo každyj palec (na ruke).
 [some guy]_{DAT} severed_{NON-AGR} [every finger]_{ACC} (on hand)
 ‘Some guy got every one of his fingers severed’ **frozen**
- b. Kakoj-to palec (na ruke) otrezalo každydomu parnju.
 [some finger]_{ACC} (on hand) severed [every guy]_{DAT}
 ‘Some finger or other got severed for every guy’ **ambiguous**

As already stated, the traditional approach to such constructions is to analyze the Accusative argument as being generated in a structurally higher position than the oblique. Our own intuition that sentences such as (16a) are the DN ones thus

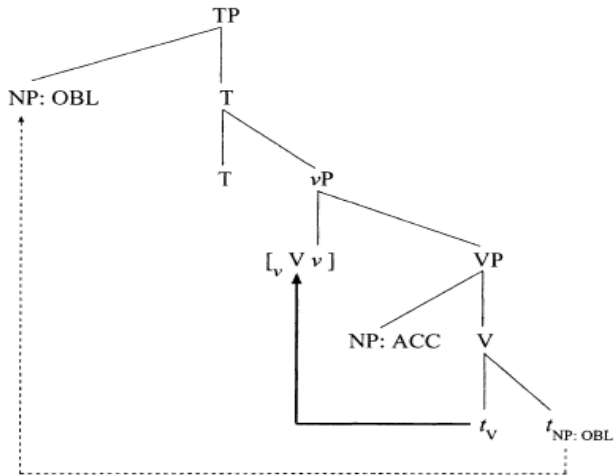
actually aligns with such analyses. Lavine and Freidin (2002) assign the following structure to the sentences in (16a/16b):

(19)



Lavine & Freidin's analysis of (16a).

(20)



Lavine & Freidin's analysis of (16b).

Applying the Scope Freezing Diagnostic to the examples in (16), we see, yet again, that the SFD implicates the opposite order of arguments at Marge:

- (21) a. Kakogo-to soldata ranilo každoj pulej.
 Some soldier_{ACC} wound_{PST.NON-AGR} every bullet_{INSTR}
 ‘Some soldier was wounded by every bullet’
 ✓**Surface scope:** some soldier x is such that x was wounded by every bullet y;
 ***Inverse scope:** for every bullet x, there is a (potentially) different soldier y, such as x wounded y;
- b. Kakoj-to pulej ranilo každogo soldata.
 Some bullet_{INSTR} wound_{PST.NON-AGR} every soldier_{ACC}
 ‘Some soldier was wounded by every bullet’
 ✓**Surface scope:** some bullet x wounded every soldier y;
 ✓**Inverse scope:** for some soldier x, for some bullet y, x was wounded by y.

The conclusion emerging from the above (incomplete) set of constructions is that the [+Animate] argument must be merged lower than its co-argument in the above constructions and, furthermore, that the advancement of the [+Animate] argument to a structurally prominent position c-commanding its co-argument does not disrupt Focus projection and results in a linearization widely judged to be the DN one. Other examples where the SFD provides key insights into the relative order of argument Merge suggest we are dealing with a phenomenon that is systematic and fairly widespread, though hitherto not recognized in the literature.

3. THEORETICAL AND METHODOLOGICAL IMPLICATIONS

3.1 Theoretical Implications

3.1.1 On the Discourse Neutrality of Derived Structures

While one of the main claims of this paper, namely that the intuition of discourse neutrality does not always correspond to the base-generated word order in Russian may sound surprising to a Russian linguist, this claim is in fact strongly supported by cross-linguistic findings. Thus, as pointed out by an anonymous reviewer, if Kayne’s (1994) approach to languages with SOV word order (where on Kayne’s account such word order must involve overt object movement) is correct, the languages in question provide a rather drastic example instantiating this claim, with discourse neutrality clearly not reflecting the base-generated word order in such cases. Verb raising in Romance languages, whereby head movement feeds

word order that is perceived as both discourse neutral and as the solely grammatical one also arguably instantiates the same pattern.⁶ Finally, Kayne (2010) observes that there are languages with SONegV as the canonical/discourse neutral word order; this, the reviewer points out, is the case where the object must be taken to have undergone overt movement, whatever one's theoretical assumptions may be.⁷

3.1.2 On Thematic Hierarchy, Animacy and Focus Spreading

While the finding that AI is mediated by Animacy and in this way interacts with Focus projection is indeed novel, much of what the SFD uncovers has been at least hinted at in the literature before. Thus, the finding that the derived word order may not always disrupt Focus projection is not entirely new and is at least implicit in cross-linguistic research cited in section 3.1.1 above. As far as research on Russian is concerned, Bailyn (2004) has suggested in passing (ft.26, p.28) that it is not necessarily the case that A-movement disrupts Focus spreading in Russian (despite this being commonly assumed); instead, he suggests that the Thematic Hierarchy plays a role in whether or not Focus spreading in Russian is observed. While this is correct both in that AI is indeed A-movement (see e.g., Bailyn 2012; Dyakonova 2009), and in that the thematic roles are relevant here, what we observe in our data is that the role of Thematic Hierarchy is an indirect one and that it must be mediated by Animacy. Specifically, Thematic Hierarchy is relevant for or determines the order of arguments at Merge (e.g., Causers merged later, hence higher in the structure than Experiencers, Ramchand 2008), but it does not in itself interact with or affect Focus and Focus spreading. Rather, we have argued that it is not just any A-movement, but crucially Animacy-mediated Argument Inversion (AI being an extremely local instance of A-movement, see Antonyuk 2021; Antonyuk and Mykhaylyk 2022) that determines whether such permuted word order will

⁶ See also Antonyuk (2022) on head movement in East Slavic, which treats verb raising in Russian as a syntactic operation and, crucially for present purposes, shows that word orders where the verb has undergone head raising outside vP and AspP can, under the right conditions, indeed instantiate the most discourse neutral and felicitous order.

⁷ The same reviewer cites data from Brazilian Portuguese due to Lacerda's (2020) dissertation, where both overt movement of the direct object across an adverb and a linearization without such movement are both fine as an answer to the *what-happened* question-test.

allow Focus spreading and will thus result in a linearization perceived as DN or not. In other words, the thematic role of any given argument will either be (in)compatible with or require the [+Animate] specification of the bearer of this theta role. And what we have observed is that in every case we have seen where Focus spreading obtains with a derived word order (per SFD), is that the word order in question is derived via AI and the argument undergoing AI must denote a [+Animate] entity. Finally, it is important to point out that AI can also take place when the inverted XP is [-Animate], thus Animacy cannot be the driving force behind this operation. Indeed, examples involving ditransitive verbs like the one in (6), modified below in (22a), will routinely allow inversion of the lower [-Animate] PP argument to a position preceding its co-argument. Crucially though, such AI will not lead to Focus spreading, thus serving as a control in our attempt to tease out the contribution of Animacy. The key examples completing the paradigm are (23a-b), which demonstrate that when the same verb takes a [+Animate] argument PP, the preference yet again is for the [+Animate] PP to precede the [-Animate] direct object. Incidentally, there is no disagreement in the literature regarding the PP being the lower/subordinate argument in such examples (a conclusion also supported by the SFD, see Antonyuk 2015; 2020), thus demonstrating yet again that Animacy of an argument overrides base-generation as far as Focus projection is concerned.⁸

Out of the blue context: Čto sluchilos'? What happened?

- (22) a. Maša na-pisa-l-a slogan na sten-e **DN**
 Masha NA-write-PST-FEM slogan-ACC.MSC on wall-PREP.FEM
 'Masha wrote a slogan on the wall'
- b. Maša na-pisa-l-a na sten-e slogan
 Masha NA-write-PST-FEM on wall-PREP.FEM slogan- ACC.MSC
 'Masha wrote a slogan on the wall'

Out of the blue context: Čto sluchilos'? What happened?

- (23) a. Maša na-pisa-l-a slogan na Lene.
 Masha NA-write-PST-FEM slogan-ACC.MSC on Lena-PREP.FEM
 'Masha wrote a slogan on Lena'

⁸ I am grateful to Klaus Abels (p.c.) for urging me to clarify the relation between AI and Animacy as presented in this paper.

b. Maša na-pisa-l-a na Lene slogan. **DN**
 Masha NA-write-PST-FEM on Lena-PREP.FEM slogan-ACC.MSC
 ‘Masha wrote a slogan on Lena’

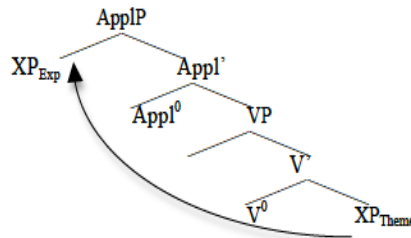
3.1.3 Insights from SFD and Previous Accounts

The insights afforded by the SFD allow us to adjudicate between existing analyses of various constructions as well as to propose viable alternatives. As far as the distant object placement examples from Sirotinina (1965/2003), which Bailyn (2012) analyzes as problematic cases involving modificational XPs, our findings strongly suggest instead that these cases involve an XP merged as the verb’s complement. Notice in this regard that if Sirotinina’s examples indeed involve an adverbial XPs rather than an argument, as argued in Bailyn (2012), their being merged in the complement position is in fact fully expected on rightward descent theories of adjunction defended in Larson (2004; 2014). Thus, to the extent that examples such as (13) can indeed be analyzed as involving modificational XPs, our results provide independent cross-linguistic support for rightward descent analyses of adjunction. Furthermore, while our main results regarding Animacy-based AI and Focus spreading may be surprising, considering how well established the tests based on DN and Focus spreading are, they nevertheless fit quite well with existing research on argument structure and phrase structure more generally. Notice, for instance, that contrary to existing analyses of examples such as Preslar’s (11), the PP argument being merged higher than the NP_{ACC} in such instances is not far-fetched, since the PP can be analyzed as representing an Inanimate Causer argument (presumably an *Initiator* argument in Ramchand 2008). Furthermore, the fact that movement of an ACC-marked [+Animate] Experiencer across the Inanimate Causer implicated by the SFD results in what is widely perceived as the neutral word order, while novel, is of course not entirely unexpected, since Animacy has long been known to play a role in linguistic phenomena generally (Palmer 1994; de Swart 2006; de Swart et al. 2008 i.a.), and for its ability to affect argument structure relations in particular (Branigan et al. 2008; Malchukov 2007; Tomlin 1986 i.a.).⁹ Most relevantly for us, Glushan (2013) has explored the role of Animacy in Russian

⁹ As pointed out by an anonymous reviewer, it is also worth noting in this respect the Animacy restriction on Differential Object Marking in numerous languages (see Aissen 2003; Krause & von Heusinger 2019, von Heusinger & Kaiser 2003, a.m.o.)

unaccusative constructions, arguing that [+Animate] Themes undergo raising to Spec, ApplP and thus obtain the Experiencer role as well (see 24).

(24)



Glushan's (2013) analysis of Russian unaccusatives

The findings reported here both provide support for this line of work as well as suggest an even greater role of Animacy in the syntax of Russian. Specifically, the fact that this same pattern is found over and over again, in e.g., ditransitives, causatives, experiencer constructions, adversity impersonals, etc., suggests that Animacy plays a central role in the syntax and IS of Russian.¹⁰ Perhaps most importantly, our results carry non-trivial implications for the decades-long debate on the nature of the relation between the Double Object and the Prepositional Dative Constructions, where the Animacy restriction on the Goal/Recipient argument in the DOC has been argued to provide evidence for the lack of a derivational relation between the two alternating frames.¹¹

3.1.4 Animacy vs Givenness

Interestingly, Mykhaylyk, Rodina & Anderssen (2013) have argued, on the basis of experimental data on adult and child Russian and Ukrainian, that the DP_{DAT} > DP_{ACC} order of internal arguments in ditransitives is determined by Givenness.

¹⁰ See Junghanns & Zybatow (1997); Dyakonova (2009); Kallestinova (2007), Kučerová (2007, 2012); Mykhaylyk et al. (2013); Antonyuk & Mykhaylyk (2022, i.a.), on the permutation of internal arguments in Russian and/or Ukrainian and the factors implicated in such argument reordering (referred to here as *Argument Inversion*, following Antonyuk & Mykhaylyk 2022).

¹¹ This point is discussed in some detail in Antonyuk (under review) and Antonyuk (in preparation).

Drawing on the finding that children prefer the $DP_{DAT} > DP_{ACC}$ order not only in Goal-given contexts but in Theme-given contexts as well, Mykhaylyk et al. (2013) furthermore conclude that $DP_{DAT} > DP_{ACC}$ order of ditransitives must be base-generated, in alignment with generative and traditional literature that considers the IO-DO to be more neutral. We agree with the authors that Givenness plays an important role in Slavic and believe there is a significant degree of overlap between Givenness and Animacy as the factors at play in the derivation of various constructions. Nevertheless, it is possible to tease the two apart. That the order of internal arguments in ditransitives cannot be primarily attributed to the role of Givenness is very clear in cases where both internal arguments represent given information:¹²

(25) *Context: Začem mama kupila Miške etu knihu?*

Why did mother buy Mike this particular book?

a. ✓Mama_j kupila Miške etu knihu, čtoby PRO_j probudit'
 Mother bought Mike this book, in.order to. incite
 interes k matematike.
 interest to mathematics
 'Mother bought Mike this book in order to inspire interest in math.'

b. #Mama_j kupila etu knihu Miške, čtoby PRO_j probudit'
 Mother bought this book Mike in.order to. incite
 interes k matematike.
 interest to mathematics
 'Mother bought this book for Mike in order to inspire interest in math'

As the above shows, in contexts where both object XPs represent given material (thus Givenness as a factor is taken out of the equation), Animacy of the

¹² Mykhaylyk et al. (2013) investigate contexts where either DO or IO represent given information, but not both. In the context of their general conclusions, the only plausible interpretation of the data in (25) is that (25a) is more felicitous/neutral since the IO > DO is the base order. Our results provide another explanation, namely that the existence of a highly ranked Animacy constraint (in Optimality-theoretic terms), which outranks the Givenness constraint, requires the [+Animate][given] argument to precede the [-Animate][given] argument.

Goal argument requires that it precede the Theme. The novel insights afforded by the SFD moreover suggest that this requirement is satisfied through syntactic movement, and not through base-generation of the Recipient/Goal in a structurally higher position, as is widely assumed. We maintain that this is a fairly general situation. Any argument, irrespective of its case, thematic role or grammatical function can represent given material in Slavic and as such will have to undergo fronting (see esp. Kučerova 2007; 2012; and Antonyuk 2021 on Russian). In this sense it is both nearly impossible and clearly superfluous for Givenness to reflect the original Merge relations, as is implicit in numerous accounts of the Dative Alternation, e.g., Junghanns & Zybatow 1997; Dyakonova 2009; Mykhaylyk et al. 2013, i.a., which assume that Focus spreading observed in $DP_{DAT} > DP_{ACC}$ order is a reflection of its status as underived.

Our results provide another interpretation for Mykhaylyk et al.'s findings. Specifically, we suggest that, despite Givenness clearly being an important factor in Slavic, Animacy plays a more central role yet in both adult and child grammar. In the case of ditransitives, the SFD suggests that the Recipient/Goal, which overwhelmingly represents a [+Animate] entity, is merged lower than the Theme (which represents a [-Animate] entity in ditransitives), but will routinely undergo movement to a position c-commanding the Theme.¹³ In other words, neither Givenness *nor* Animacy reflect or are reflected structurally in the order of Merge, with the requirements imposed by both being satisfied via leftward syntactic movement. Nevertheless, despite this similarity, there is a crucial distinction between the two: as is abundantly clear from our data, advancement of a [+Animate] NP via AI invariably yields Focus projection and results in a linearization uniformly perceived as the more discourse neutral one.¹⁴

3.2 Methodological Implications

¹³ Our results thus provide general support for theories of ditransitives such as Baker (1988; 1997); Larson (1988; 1990; 2014) i.a.

¹⁴ The discussion here will remain somewhat incomplete in that it does not detail exactly how Argument Inversion interacts with Information Structure so as not to disrupt Focus projection the way syntactic movement is widely believed to do (Selkirk 1984; 1995). As far as the relevant difference between Animacy and Givenness is concerned, we argue in (Antonyuk, under review) that the former is a 'first phase syntax' phenomenon whereas the latter is not, in other words, Animacy-mediated movement interacts with phasehood differently from the way Givenness does.

The finding that discourse neutrality is not an inherent property of base generated structures carries an important methodological implication, namely that we cannot continue to rely on insights due to Focus spreading and intuitions of discourse neutrality as the primary diagnostic as such intuitions are shown here to be inconclusive and therefore must be verified with independent diagnostics. Furthermore, the finding that the SFD, by contrast, yields consistent results, pointing to the same pattern across a range of unrelated syntactic constructions, has important implications for the analysis of various syntactic phenomena and is especially significant methodologically, since other tests developed for Russian for this purpose (e.g., Krylov 2001; 2007; Janko 1991; 2001), while working well within a group of verbs, are nevertheless contradictory in their conclusions when applied to other groups, as well as partially contradictory to each other (see esp. the discussion in Zimmerling 2007). The SFD, on the other hand, yields consistent results that are supported by widely recognized diagnostics, such as the unaccusativity tests (see esp. Antonyuk 2020). At the moment, the SFD has allowed identification of three distinct classes of ditransitives, a classification that has been independently supported by additional syntactic tests, has unambiguously pointed to the derived nature of the Dative alternation and has provided non-trivial insights into first-phase syntax, helping us tease apart the contributions of Thematic Hierarchy and Animacy and the important role of the latter in the Argument Structure-IS interface.

4. CONCLUSION

This paper has provided novel evidence that establishes the Scope Freezing Diagnostic as a reliable test of argument structure relations. The evidence comes from the application of the SFD to a variety of constructions which all exhibit the same pattern and bring us to the same conclusion: i.e., argument permutation (*Argument Inversion*), which yields the two internal argument linearizations in Russian ditransitives (which correspond to the Double Object Construction and the Prepositional Dative Construction in English) is mediated by Animacy: specifically, the diagnostic provides strong evidence that the [+Animate] argument (i.e., a Goal argument in ditransitives) originates in the structurally lower position, as the verb's complement (per Bailyn 2012; Antonyuk 2015; 2020; under review i.a.). Crucially, we show that advancement of the [+Animate] argument to its 'canonical' position preceding the Theme does not disrupt Focus projection and results in an intuition of Discourse Neutrality, which has been widely taken in the literature to reflect the

base structure on the assumption that Focus projection and Discourse Neutrality are indicative of underived argument structure relations.

The present findings have wide-ranging theoretical and methodological implications, among them the conclusion that, at least as far as Russian/Slavic is concerned, the common practice of relying on intuitions of Discourse Neutrality and Focus Projection as a diagnostic of basic argument structure relations must be abandoned, or, at the very least, supported with a range of independent diagnostics. While the discussion here had to be kept to a minimum for space reasons, we hope to have demonstrated the potential of the SFD and the need for further exploration of the domains of its application. Finally, our results suggest a much more central role for Animacy in the domain of Argument Structure, Information Structure and their interface in Russian, which suggests a similar situation may hold more broadly across Slavic.

SUMMARY

The goal of this paper is to discuss novel insights afforded by the Scope Freezing Generalization (due to Antonyuk 2015; 2020) and the Scope Freezing Diagnostic based on this generalization. According to the SFG, scope freezing obtains from an instance of Argument Inversion which brings a structurally lower QP to a position c-commanding its previously higher co-argument through a single instance of movement. One of the most important early insights gained from the SFD pointed to the derived nature of the $DP_{DAT} > DP_{ACC}$ order of ditransitives, which corresponds to the Double Object Construction in English. This result, while supported by additional diagnostic tests clashes with the strong native speaker intuition that $DP_{DAT} > DP_{ACC}$ represents the more basic order in terms of Information Structure due to allowing Focus spreading and being perceived as the more neutral order acceptable in ‘out of the blue’ contexts. The novel results reported in this paper allow us to understand exactly why the SFD and intuitions of Focus spreading and discourse neutrality clash with each other. Applying the SFD to a range of constructions beyond ditransitives uncovers a common underlying pattern, namely that Argument Inversion (the operation that predominantly results in scope freezing), raises the [+Animate] argument to a position c-commanding its co-argument. This finding not only validates the original conclusion that $DP_{DAT} > DP_{ACC}$ is derived from $DP_{ACC} > DP_{DAT}$, but also provides novel insights into the Argument Structure - IS interface, by showing that Animacy-mediated Argument Inversion does not disrupt Focus projection and yields a linearization generally perceived as the more discourse neutral one. Among the numerous implications of this finding are methodological ones, namely that the widely relied upon practice to draw conclusions about underlying structural representations from intuitions of discourse neutrality and (presence/lack of) Focus projection is methodologically problematic. Our findings suggest that such practice yields results that are inconclusive at best and misleading

at worst and thus should always be supplemented with independent diagnostics. Finally, on a general theoretical level, our results suggest that while a Thematic Hierarchy is responsible for the order of Merge; Animacy is shown to play a much greater role in the syntax of Russian than hitherto appreciated, with Animacy-mediated syntactic movement (i.e., Argument Inversion) having a unique effect on LF (resulting in scope freezing or surface scope bias) and on the Information Structure-relevant properties of the sentence.

Keywords: *the Scope Freezing Diagnostic; Russian; Information Structure; Argument Structure; Focus spreading; scope freezing; Animacy; Ditransitive Alternation.*

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