

Russian case morphology and the syntactic categories

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1. Introduction

- **Case morphology:** Russian nouns, adjectives, numerals and demonstratives bear *case* suffixes. The shape of a given case suffix is determined by two factors:

1. its **morphological environment** (properties of the stem to which the suffix attaches; e.g. declension class, gender, animacy, number) ; and
2. its **syntactic environment**.

The traditional cross-classification of case suffixes by declension-class and by case-name (nominative, genitive, etc.) reflects these two factors.

- **Specialness of the standard case names:** Traditionally, the cases are called by special names (*nominative, genitive, etc.*) not used outside the description of case-systems. The specialness of case terminology reflects what looks like a complex relation between syntactic environment and choice of case suffix.
- **Eliminating the special case-names:** How we perceive the relation between case and syntactic environment depends not only on our view of the syntax-morphology relation, but also on our view of how the syntax itself works. In this paper, I offer two proposals about syntax offer an interesting simplification of the theory of morphological case.

In particular, these proposals allow one to abandon some of the traditional case terminology, and instead distinguish several of the case suffixes as instances of familiar syntactic categories:

- (1) **Genitive** = **N** **Accusative** = **V**
 Nominative = **D** **Obliques** = **P**

A genitive-marked word is thus a stem to which a suffix of category N has been attached; a nominative-marked word is a stem with a suffix of category D; and an accusative bears a suffix of category V (with some caveats discussed below).

A dative, instrumental, prepositional or locative-marked word bears a suffix of category P. Only the distinctions among these last cases will fail to correspond to syntactic category distinctions, but may reflect the kinds of lexical differences that independently distinguish subcategories of overt prepositions.

¹ This paper arose in the context of ongoing joint work on undermerge and related issues with Esther Torrego (UMass/Boston), though responsibility for the Russian sections should be laid fully at the door of the present speaker. Thanks to Masha Polinsky, Esther Torrego and Morris Halle for discussion, and to John Bailyn and Andrew Nevins for useful remarks by e-mail.

- **Terminology:** I will use the abbreviations **NGEN, DNOM, VACC, PDAT**, etc. to remind us of the traditional names for the cases whose actual nature is simply N, D, V, and (types of) P. The case-name suffixes to these designations are thus present merely for our convenience.

Genitive: The most unusual aspect of the proposal will be the treatment of genitive as N -- with which I will begin the discussion in the next section.

- **Syntax:** The treatment of case as in (1) will depend on two ideas that are novel in the context of a syntax based on external and internal Merge, but are also revivals of well-known older proposals, as well as a third important concept:

1. Morphology assignment:

When α [or a projection of α] merges with β and α assigns an affix, the affix is copied onto β and realized on the (accessible) lexical items dominated by β .

This proposal revives the notion of *case assignment* (Vergnaud (2006); Rouveret & Vergnaud (1980); Chomsky (1980; 1981)). Other properties of older notions of case assignment, however, continue to follow from the theory of *agreement* (Chomsky (2000; 2001); Pesetsky and Torrego (2007); and others). The integration of these two notions is work in progress.

2. Undermerge:

Internal Merge may create new *complements*, not just new specifiers. I will use the name *undermerge* for complement-forming Merge, and *overmerge* for specifier-forming Merge. The proposal generalizes to phrase-to-head movement an analysis more familiar in the domain of head-to-head movement (Travis (1984), Baker (1988); Pollock (1989), Chomsky (1991)). It also revives the proposal of *Raising to Object* (Rosenbaum (1967), Postal (1974)).

The relevance of points 1 and 2 to morphological case in Russian: Undermerge of a new complement to a head that already has one bleeds morphology assignment to the previous complement.

- **3. Phases:** Also important will be the notion of syntactic **phase** as a Spell-out Domain.

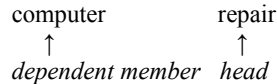
The relevance of points 1 and 3 to morphological case in Russian: Morphology assignment cannot affect the lexical items of a domain D after D is spelled out or linearized.

- **Undermerge and the spelling out of phases** thus serve as two brakes on an otherwise general process of Morphology Assignment. The value of these brakes to us is that they freeze for our inspection earlier stages of the derivation, allowing us to verify our theory of that derivation.

2. The hidden genitive in all Russian nouns

Key properties of compound nouns in English

(2) Terminology for endocentric compounds



Property A. Dependent member is a bare NP (i.e. not a DP):

(3) Dependent member must not contain D...

- | | |
|------------------------|------------------------------|
| a. the [bus stop] | vs. *the [a bus] stop |
| b. a [computer repair] | vs. *a [the computer] repair |

...even when the N requires it...

- | | |
|------------------------|--|
| c. a [Bronx apartment] | vs. *a [the Bronx] apartment |
| | (but: <i>I grew up in *(the) Bronx</i>) |

- | | |
|--------------------|-------------------------------------|
| d. a [UN diplomat] | vs. *a [the UN] diplomat |
| | (but: <i>I work for *(the) UN</i>) |

...but may be phrasal, allowing a prenominal modifier

- | | |
|---------------------------------|---|
| c. some [foreign car] rental | vs. *[some [[the foreign car] rental] |
| d. the [South Bronx] Expressway | vs. *[the [the South Bronx] Expressway] |
| | [ok <i>I live in the Bronx</i> vs. * <i>I live in Bronx</i>] |

Property B. Morphologically singular dependent member substitutes for expected plural:

(4) Morphologically singular dependent member may have plural interpretation...

- | | |
|--------------------|-------------------------|
| a. computer repair | (= repair of computers) |
| b. car rental | (= rental of cars) |

(5) ...even allowing singular forms of pluralia tantum as the dependent member:

- | | | |
|-------------|-------------------|-----------------|
| a. pant leg | b. scissor repair | c. drug problem |
|-------------|-------------------|-----------------|

- **Strategy:** I will take property A as defining a type of construction (a "compound") whose dependent member is a bare NP. I use property B as an additional way of spotting compounds.

Counterparts to these compounds in French and Russian

(6) French and Russian counterparts of Germanic compounds

a. l'arrêt de bus	ostanovka avtobusa	'bus stop'
<i>stop of bus</i>	<i>stop bus-GEN.SG</i>	
b. station de métro	stancija (moskovskogo) metro	'subway station'
<i>station of subway</i>	<i>station Moscow-GEN.SG subway</i>	
c. réparation d'ordinateur	%remont komp'jutera	'computer repair'
<i>repair of computer</i>	<i>repair computer-GEN.SG</i>	
d. location de voiture	arenda avtomašiny	'car rental'
<i>rental of car</i>	<i>rental automobile-GEN.SG</i>	
e. Palais de Culture	dvorec kul'tury	'culture palace'
<i>palace of culture</i>	<i>palace culture-GEN.SG</i>	
f. Maison de Livre	Dom Knigi	<i>Buchhaus</i>
<i>house of book</i>	<i>house book-GEN.SG</i>	
g. Maison d'étudiant	Dom studenta	'Student House'
<i>house of student</i>	<i>house student-GEN.SG</i>	
h. rue de Beethoven	ulica Betxovena	'Beethoven street'
<i>street of Beethoven</i>	<i>street Beethoven-GEN.SG</i>	
i. Fondation de France	fond Francii	'France Foundation'
<i>foundation of France</i>	<i>fund France-GEN.SG</i>	
musée de cire	muzej voska	'wax museum'
<i>museum of wax</i>	<i>museum wax-GEN.SG</i>	
j. agence de voyages	bjuro putešestvij	'travel agency'
<i>agency of trips</i>	<i>bureau trip-GEN.PL</i>	
k.	tanec života	'belly dance'
	<i>dance belly-GEN.SG</i>	

- **Conjecture:**

We are seeing the same construction in all three languages: a compound.

Thus: The English and French compounds teach us about Russian.

- **Properties of dependent member in French, English and Russian:**

1. English, French: absence of D on the dependent member
2. Russian / French: genitive case² / *de*
- [3. English, Russian, French: singular form may have plural interpretation]

² I will not discuss Russian or French exocentric compounds that do not show GENitive, such as *gorod-geroj* / *ville-héros* 'hero city' (lit. 'city-hero'). In French the second member lacks an independent article, but this might reflect N-N coordination, rather than the subordination of an endocentric compound. Also not discussed here are the much-discussed AGENT and instrument compounds like French *grille-pain* 'toaster' (lit. 'grills-bread'), which Russian lacks, and Russian semi-counterparts like *ledokol* 'icebreaker' (M. Polinsky, p.c.) or *ljudoed* 'cannibal'.

(7) **Syntax of dependent member of a compound**
The dependent member of a compound is a bare NP in all three languages.³

- ...and genitive morphology is the sign of a bare NP.

The nature of Russian genitive morphology

- **Observation:** The Russian noun contains just one slot for pronunciation of an inflectional suffix.
- **If this observation is a matter of pronunciation, as in (8)...**

(8) **The One-Suffix Rule (Russian Nouns)**
 Only the final overt inflectional suffix on a noun is pronounced

- ... then the One-Suffix Rule (8) allows the following characterization of genitive morphology:

(9) **Genitive morphology is N**
 Each Russian noun enters the syntax with a suffix N, realized as *genitive* morphology. Attaching N to a stem categorizes it as a noun.

- **The fact that nouns are not always morphologically genitive reflects situations in which other affixes are added outside genitive.**

Note: NGEN is not the "little n" of Marantz (1997), which merges in the syntax with a category-neutral *phrase*, creating an NP. It will be crucial shortly that **nouns enter the syntax as nouns — with NGEN already affixed.**

- **The shape of NGEN is context-dependent:** sensitive to noun-class and number on N. (See Nevins and Bailyn (2006) for a phonologically explicit proposal.). In its plural form, it is phonologically null on the surface, but is an underlying *yer*-vowel, indicated by -Ъ:

(10) **Realization of genitive (i.e. +N) on singular and plural nouns**

stem	NGEN sg.	stem	NGEN pl.
a. stol -	a	b. stol -	OV
→ <i>stola</i>		→ <i>stolov</i>	
c. lamp -	y	d. lamp -	Ъ
→ <i>lampy</i>		→ <i>lamp</i>	

...so we must distinguish the affixation of NGEN -- a collection of features -- from the context-dependent phonological realization of these features (Pesetsky (1985), Halle and Marantz (1993)).

- **Any adjective phrase merged with a noun in the genitive case must itself bear genitive morphology...**

(11) **Genitive adjective + noun as dependent member of compound**

remont stiral'n-oj mašin-y
 repair washing-FEM.GEN.SG machine-GEN.SG
 'washing machine repair'

...but we delay our discussion of the reasons for this concord for a bit.

Nominative

- I propose that nominative morphology results from the **affixation of D to N**. By the One-Suffix Rule (8), the Nominative DNOM suffix suppresses the pronunciation of the NGEN suffix:

(12) **Suppression of NGEN suffix by DNOM**

stem	NGEN sg.	DNOM sg.	stem	NGEN pl.	DNOM pl.
a. stol	(-a)	-Ъ	b. stol	(-ov)	-y 'table'
→ <i>stol</i>			→ <i>stoly</i>		
c. lamp	(-y)	-a	d. lamp	(-Ъ)	-y 'lamp'
→ <i>lampa</i>			→ <i>lampy</i>		

- When D merges with (a projection of) N, it *assigns* its D feature to N, with a morphological consequence that all accessible lexical items of N receive a DNOM affix. For the moment, we continue to examine simple Ns with only one lexical item, the noun.

Note: If this proposal is correct, Russian has an article — the affixal D responsible for nominative morphology. This makes Russian less different from languages like Bulgarian than one might have thought.

Oblique

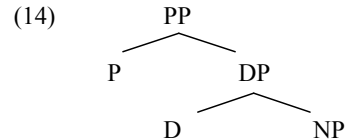
- **If P is affixed to D** — i.e. to [stem+N+D] — the POBL suffix suppresses the pronunciation of the DNOM suffix, just as DNOM suppressed NGEN.

³ The dependent member is thus a "small nominal", but in a very different sense from Pereltsvaig (2006).

- (13) **Suppression of NGEN and DNOM morphology by POBL (here, P_{DAT})**
- | | stem | NGEN sg. | DNOM sg. | P _{DAT} sg. | | stem | NGEN pl. | DNOM pl. | P _{DAT} sg. |
|----|------|----------|----------|----------------------|---|--------|----------|----------|----------------------|
| a. | stol | (-a) | (-ъ) | -u | → | stol | (-ov) | (-y) | -am |
| | → | stolu | | | → | stolam | | | |
| c. | lamp | (-y) | (-a) | -e | → | lamp | (-ъ) | (-y) | -am |
| | → | lampe | | | → | lampam | | | |

Russian as a case stacking language

- If this proposal is correct, Russian is actually a "case stacking" language like Lardil — a view recently proposed by Richards (2007) (an important predecessor of this paper).
- Some aspects of our proposal need less argument than others. For example, the order NGEN-DNOM-POBL reflects the way a PP is built...



...and the idea that bare Ns are genitive was argued for in section 2.

- **But other aspects are not yet supported by evidence. In particular, why believe:**

(1) that a word with nominative case was born genitive and got "reassigned" nominative by D; or

(2) that a word with oblique (e.g. dative) case was also born genitive, spent some time as a nominative, and only later was "reassigned" oblique by P?

- I offer two arguments in defense of the general proposal, which simultaneously support the association of the cases with the various syntactic categories. The arguments have the same general form:

*If we can find a syntactic configuration which blocks the overwriting of an old case with a new case ending, we should find the old case surfacing in an environment where one otherwise expects the new case.*⁴

⁴ Both arguments involve retention of genitive after assignment of nominative or oblique. I do not have a comparable argument showing retention of nominative in an oblique environment, though there are two instances of nominative following P in Russian that may be relevant.

3. Argument 1 for the proposal: Phrases with paucal numerals

Step 1: Explain the number mismatch between adjective and noun in paucal numeral constructions.

- (15) **A nominative (or accusative) paucal numeral ('two', 'three', 'four') takes a GEN.SG noun...**

a. dva stol-a	b. tri dnj-a	c. četyre stakan-a
two table-GEN.SG	three day-GEN.SG	four glass-GEN.SG

- (16) ... **but a modifying adjective following the paucal numeral is plural, even though the noun is singular.**

dva novyx pidžaka.
three-NOM new-GEN.PL coat--GEN.SG

- **In general, when an attributive adjective merges with a projection of N, its morphological number is determined by the number of the N it modifies:**

- (17) a. francuzskij jazyk
French-NOM.SG language-NOM.SG
'French language'
- b. romanskie jazyki
Romance-NOM.PL language-NOM.PL
'Romance languages'

c. moi ljubimye [syn i doč']
my-NOM.PL beloved-NOM.PL son-NOM.SG and daughter-NOM.SG

- **Proposal:** The adjectives in (16) are no exception to the general rule. They are merging with and modifying a plural phrase. Though the noun is singular, the combination of noun and paucal numeral is plural.

Details: Number (Num) may be added to N either pre-syntactically (as morphology) or by syntactic Merge. The choice depends on the species of Num being added. A noun to which Num has not merged pre-syntactically bears singular morphology.

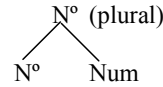
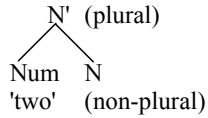
Plural Num — added pre-syntactically (as morphology):

A normal plural N is formed by *lexically* (i.e. pre-syntax) merging a noun with plural Num.

Paucal Num — added syntactic (by Merge that does create a word)

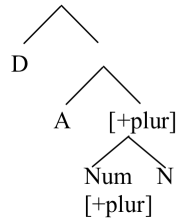
Numerals 2-4 are not numerals, but syntactically independent instances of Num. On the assumption that a noun may merge only once with Num, this accounts for the genitive *singular* morphology on N with the paucal numerals. It is 'two', 'three' or 'four' that pluralizes N by syntactically merging with it:

- (18) a. *paucal*
(syntactically merged) b. *normal plural*
(presyntactically merged)



- **Adjectives:** An adjective that merges with (18a) is merging with a plural phrase. This explains its plural morphology. Compare (17c):

- (19) **Adjective modifying a plural will be morphologically plural**



Step 2: Explain the word order among adjective, noun and paucal numeral.

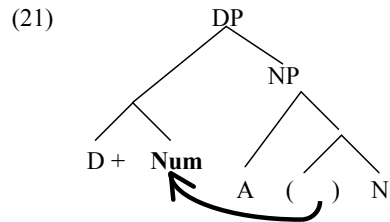
- **The agreement mismatch between noun and adjective leads us to expect the order: "adjective-numeral-noun" instead of the actual unmarked order "numeral-adjective-noun" seen in (16).**

- (20) **Paucal numeral precedes adjective**

a. dva novyx pidžaka
three-NOM new-GEN. PL coat--GEN. SG

b. #novyx dva pidžaka (unless adjective is focused)

- **Solution: Num-to-D head movement:**



Step 3: Explain the absence of nominative case on N and adjective.

- **Nominative paucal, genitive N:** The paucal numerals *dva* 'two', *tri* 'three', and *četyre* 'four' do have distinct genitive forms *dvux*, *trëx* and *četyrëx*. Why does the paucal numeral show nominative case morphology in nominative environments, while their noun (along with modifying adjectives) bears genitive.
- **Effects of Num-to-D movement:** If the movement shown in (20) obligatorily takes place, and if nominative case is D_{NOM}, assigned by D, a generalization emerges.

In (20), D assigns its D_{NOM} morphology only to the new complement formed by Num-to-D movement (the paucal numeral "Num"), leaving its former complement (the remnant NP) untouched and genitive.

- **"New Complement"?**

In ongoing work with Esther Torrego, we argue that Travis-style head movement of the sort seen in (21) (Travis (1984)) is a real phenomenon and is directly produced by Merge — contrary to many recent counterproposals (Mahajan (2000); Koopman and Szabolcsi (2000); Fukui and Takano (1998); Toyoshima (2001); Matushansky (2006)).

We propose, furthermore, that such movement be understood as satisfying a "second complement" requirement of a head, just as EPP may be understood as a "second specifier" requirement — and call such movement **undermerge** (contrasted with specifier-forming **overmerge**).

Our work is focused on arguing that undermerge is not limited to head movement, and that **phrasal undermerge** is ubiquitous as well. Much of the evidence is old: arguments for raising-to-object in English (Rosenbaum (1967)) and the arguments for raising to object of P of McCloskey (1984). We believe that undermerge (in fact, raising to object of P) offers a solution to phrase structure paradoxes in Pesetsky (1995), and other issues posed in a variety of constructions.

This ongoing work is relevant to the present paper mainly to indicate the (claimed) existence of support for the structure of (21), and the status of the raised Num as a "new complement" of D.

Step 4: Oblique phrases with paucal numerals — Merge P with (21)

(22) **A temporary proposal (to be replaced shortly)**

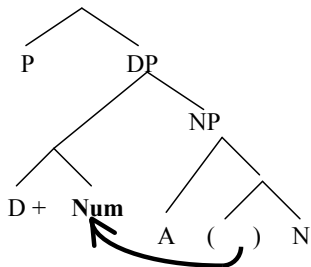
A head such as D assigns its morphology (D_{NOM}) under c-command (once DP is complete).

- **The temporary proposal in (22) predicts the assignment of D_{NOM} to the paucal numeral, and the retention of genitive (N_{GEN}) on the lexical items of the rest of the NP.**

In contrast to most other proposals (e.g. Pesetsky (1982b), Bailyn (2003)), genitive in the paucal numeral construction is thus *not* assigned by the numeral. It is instead "primeval genitive". The initial genitive morphology of the NP, not been overwritten by other morphology — because of the Num-to-D movement in (21).

- **Further Prediction: If a P is merged with (21), it will c-command not only $D+Num$, but also the remnant NP.** Consequently, the lexical items of the remnant NP, along with Num itself, will receive any morphology assigned by P...

(23)



- ...predicting correctly that oblique case, e.g. P_{DAT} , will be found not only on the paucal numeral, but also on the lexical items of the remnant NP:⁵

(24) **DPs with a paucal numeral in an oblique (dative) environment**

- a. *dvum xorošim stolam* b. *trëm xolodnym dnjam*
 two-DAT good-DAT.PL table-DAT.PL three-DAT cold-DAT.PL day-DAT.PL
- c. *četyr-ëm krasivym stakanam*
 four-DAT beautiful-DAT.PL glass-DAT.PL

Step 5: Why are the oblique nouns in (24a-c) plural?

Suppose P bears unvalued, uninterpretable number ($uNum[]$). This feature will probe to value its Num feature, and the closest Goal will be *plural*, as we have already seen. Consequently, the morphology assigned by P to DP will be the plural variant of the relevant oblique case, e.g. P_{DAT} plural. **This argues for the distinctness of Agree and morphology (case) assignment.**

Interim summary

- The number mismatch between adjective and noun motivated a structure that predicted the order *adjective-numeral-noun*.
- Num-to-D movement explains the actual order *numeral-adjective-noun*, and simultaneously suggests a structure in which the numeral is a sister to D, but not the remnant NP.
- This derived structure allows us to explain why only the numeral, and not the rest of the NP, is nominative — and why the rest of the NP is genitive...assuming our configurational proposal for case assignment and the "primeval" status of genitive on N.
- It is further predicted, correctly, that a higher assigner such as P will overwrite both nominative and genitive with whatever oblique morphology the P controls, e.g. P_{DAT} , with number of the morphology dictated by the valuation of the number feature of P via Agree.

4. Q that does not raise to D

- DPs with non-paucal numerals and a variety of other quantificational elements behave like the paucals, except for the number mismatch.

- **Analysis: What D actually attracts is a subclass of quantifiers that I will call +Q. Paucals are both Num and +Q, many instances of +Q are not Num:**

(25) **Non-paucal +Q in nominative environments**

- a. *mного krasivyx stolov*
 many-NOM beautiful-GEN.PL table-GEN.PL
- b. *dostatočno tēploj vody*
 enough-NOM warm-GEN.SG water-GEN.SG
- c. *šest staryx lamp -ь*
 six-NOM old-GEN.PL lamp-GEN.PL

⁵ This is the so-called "homogeneous pattern" of Babby (1987). See also Babby (1980) and Pesetsky (1982a). For cross-Slavic variation, see especially Franks (1995).

(26) **Non-paucal +Q in oblique (dative) environments**

- a. mnogim krasivym stolam
many-DAT.PL beautiful-DAT.PL table-DAT.PL
- b. dostatočnoj tĕploj vode
enough-FEM.DAT.SG warm-FEM.DAT.SG water-DAT.SG
- c. šesti starym lampam
six-DAT.PL old-DAT.PL lamp-DAT.PL
- (Pesetsky (1982), Babby (1987), Franks (1995), among many others):

- **Some quantifiers are not +Q, e.g. vse 'all', každyj 'each'. These are not attracted to D, and therefore do not deprive the rest of their NP of nominative assignment from D:**

(27) **Quantifiers that are not +Q, in nominative environments**

- a. vse krasivye stoly
all-NOM.PL beautiful-NOM.PL table-NOM.PL
- b. každaja staraja lampa
each-FEM.NOM.SG old-FEM.NOM.SG lamp-NOM.SG

(28) **Quantifiers that are not +Q, in oblique (dative) environments**

- a. vsem krasivym stolam
all-DAT.PL beautiful-DAT.PL table-DAT.PL
- b. každoj staroj lampe
each-FEM.DAT.SG old-FEM.DAT.SG lamp-DAT.SG

(29) **Paucal numerals may behave like vse and každy when feminine!**

- a. dve starye ženščiny
two-FEM.NOM old-NOM.PL women-NOM.PL (GEN also OK)
- b. tri Ivanovy
three-NOM Ivanova-NOM.PL

Note: It is usually said that the noun here is genitive singular, which shows syncretism with the nominative plural with these nouns -- but as Franks (1995) and Isakadze (1998) note, the form *Ivanovy* is uniquely nominative plural, an irregularity in female names in *-ova*. The genitive would be *Ivanovoj*.

Stress, however, goes the other way. In cases where, due to lexical idiosyncrasy, the plural of a feminine noun shows a different stress from the singular, the stress pattern with a paucal numeral is that of the genitive singular, rather than the nominative plural. I leave this problem open. A related problem might be the five masculine nouns that have end-stress with paucal numerals but stem-stress in other genitive environments (Rappaport (2002), Nevins and Bailyn (2006), among others).

5. VACC

- **Special accusative form 1:** In an animate DP, an accusative noun or adjective is **morphologically genitive** if (1) it belongs to Declension II (nouns), (2) is masculine (adjectives) or (3) is plural. We may view all of these as involving Declension II, on the grounds that plurals of all nouns and adjectives are the same regardless of declension class (with complications in the genitive) and that the masculine adjectives are arguably of Declension II (Halle and Matushansky (2006)).

(30) **Genitive morphology on animate accusative nominals**

- a. My videli nastojaščego lingvista.
we saw real-MASC.GEN.SG linguist-GEN.SG
'We saw (the/a) real linguist.'
- b. My videli malen'kix sobak-ъ.
we saw small-GEN.PL dog-GEN.PL
'We saw (the/some) small dogs'

- **Special accusative form 2:** A noun with theme vowel *-a* or a feminine adjective shows a special accusative form in the singular, common to animates and inanimates. Since the feminine adjectives arguably also have theme vowel *-a*, we may assume that this special form is triggered by theme vowel *-a* in both nouns and adjectives.

(31) **Acc morphology on nouns and adjectives with -a**

- a. My videli nastojaščuju sobaku/lampu.
we saw real-FEM.ACC.SG dog-ACC/lamp-ACC
'We saw (the/a) real dog/lamp.'
- b. My videli malen'k-ogo [!] mužčinu.
we saw real-MASC.GEN.SG man-ACC
'We saw (the/a) small man.'

- **Otherwise...**there is no special accusative. Traditional grammar would say that there is an accusative identical to the nominative:

(32) **Direct object with nominative form**

a. My videli nastojaščij stol.
 we saw real-MASC.NOM.SG table-NOM.SG
 'We saw (the/a) real table.'

b. My videli malen'kie lampy.
 we saw small-NOM.PL lamp-NOM.PL
 'We saw (the/some) small lamps'

- We may assume that the special accusative morphology in (30)-(31) reflects the assignment of V_{ACC} by V (or by V selected by *v*). We do not explain why it is sometimes genitive...
- But the animate genitive of direct objects is clearly not the "primeval genitive" with which nouns enter the syntax. When an animate direct object contains a paucal numeral, genitive plural (not singular) is found on the head N, just as when P assigns oblique morphology (cf. (24) — and the numeral itself is genitive:

(33) **Animate genitive-for-accusative on paucal numerals**

a. Kitajskie organy pravoporjadka arestovali **dvux studentov**.
 ... **two-MASC.GEN student-GEN.PL**
 'The Chinese organs of law and order arrested two students.'

b. Vlasti arestovali **trëx graždan** Portugalii.
 ... **three-GEN citizen-GEN.PL Portugal-GEN**
 'The authorities arrested three citizens of Portugal.'

c. V Avstrii arestovali **četyrëx ukraincev**.
 ... **four-GEN Ukrainian-GEN.PL**
 'In Austria, they arrested four Ukrainians.'

- Non-paucal +Q quantifiers do not show the animate accusative, but this is because they are not morphologically plural, nor do they belong to Declension II:

(34) **No animate genitive-for-accusative morphology on non-paucal Q**

My videli mnogo/šest'/dostatočno nastojašč-ix lingvist-ov
 we saw many/ six/ enough real-GEN.PL linguist-GEN.PL

- The non-paucal +Q quantifiers are Declension III. Others do not show case at all — except for *sorok* 'forty', which does show case but is in a strange declension class by itself.

6. Morphology assignment not under c-command

- **In a genitive NP, how does an attributive adjective acquire genitive?**

(35) **Modifier of N' with primeval genitive is genitive (= (11))**

remont stiral'n-oj mašin-y
 repair washing-FEM.GEN.SG machine-GEN.SG
 'washing machine repair'

Preliminary answer:

Merger of α to *any* projection of an element with N_{GEN} assigns N_{GEN} to α .

- Likewise, Merge of α to any projection of D appears to assign D_{NOM} (i.e. nominative) to α :

(36) **Modifier of D' is nominative**

ëti poslednie dva krasivyx stola
 these-NOM.PL last-NOM.PL two-NOM beautiful-GEN.PL table-GEN.SG

- Perhaps the following makes the same point in VP:

(37) **Modifier of V' is accusative [?]**

ja čital knigu [celuju nedelju].
 I read book-ACC.SG entire-ACC.SG week-ACC.SG

- **But then why doesn't the remnant NP in (21) also receive nominative morphology from DP, despite Num-to-D (more accurately, Q-to-D) movement?**

(38) **Affix assignment**

If H has an affix to assign, it assigns this affix to each element with which it merges *once its complementation requirements have been satisfied*.

- D will not assign nominative until Q (Num) undermerges with it, since its complementation requirements are not satisfied until then. From that point on, it will assign nominative to each element with which it merges. Since the remnant NP was merged earlier, it does not receive nominative.

7. Argument 2 for the proposal: the possessive genitive and phases

- We might now explain the *possessive genitive* (and other adnominal genitive DPs) the same way as we explain the genitive adjective in (35).

The bracketed DP in (39), for example, receives N_{GEN} morphology from *dom* when it merges with it.

(39) Possessive genitive inside a nominative DP

a. *dom* [starogo soldata]
house-NOM.SG old-GEN.SG soldier-GEN.SG
'the old soldier's house'

b. **dom* [staryj soldat]
house-NOM.SG old-NOM.SG soldier-NOM.SG

Possessor problem: Why, however, does genitive on the possessor not get overwritten with D_{NOM} when D is merged with *dom starogo soldata*?

The answer cannot be an effect of *undermerge*, since — in contrast to the behavior of the remnant NP in the paucal numeral and other +Q constructions — even merging P with the DP in (39) has no effect on the morphology of the possessive genitive. P_{DAT} morphology is impossible on the possessor:

(40) Possessive genitive inside a DP in an oblique environment

a. *k domu* [starogo soldata]
to house-DAT.SG old-GEN.SG soldier-GEN.SG
'the old soldier's house'

b. **k domu* [staromu soldatu]
to house-DAT.SG old-DAT.SG soldier-DAT.SG

Conjecture: The following is a related question:

V_{ACC} problem: Why does V successfully assign special accusative to an animate complement, but not to the object of a complement PP?

(41) Assignment of V_{ACC} is not possible across a PP boundary

a. *My videli nastojaščego lingvista.* (=30a)
we saw real-MASC.GEN.SG linguist-GEN.SG
'We saw (the/a) real linguist.'

b. *My podošli k nastojaščemu lingvistu / *nastojaščego lingvista*
we went-up-to to real-MASC.DAT.SG linguist-DAT.SG
'We went up to (the/a) real linguist.'

Morphology assignment may certainly cross maximal projections elsewhere.

For example, P may affect the morphology of elements of NP contained within DP, as may V.

There is clearly something special about DP... but morphology assignment may certainly effect DP, as when P_{DAT} or V_{ACC} is assigned.

Apparently, an element H may assign morphology that affects the lexical items dominated by a DP **if H merged with the DP** — but not if the DP is merely contained within a phrase that H merged with.

Proposal:

1. DP is a phase (but NP, PP, etc. are not) (Chomsky (2001)). The lexical items that a phase dominates are not accessible to morphology assignment once the phase is spelled out.

2. A phase is not spelled out until it undergoes Merge.

3. Morphology assignment by H precedes spell-out of the complement of H.

• Consequences:

for the V_{ACC} problem: If the complement of V is a DP, V_{ACC} will affect the lexical items of that DP. But if the complement is a PP whose object is a DP, V_{ACC} will not affect the lexical items of DP. Consequently, the DP will retain the morphology assigned to it by P.

for the possessor problem: A possessor will be assigned morphology by the N' with which it merges, but this morphology will thereafter be frozen, since the DP is spelled out right after merger with N'.

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