Some cases of Russian

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1 Introduction

Standard approaches to Case (starting with Chomsky 1981 and Vergnaud 1982, and continuing with Chomsky 1986, 1993; Chomsky and Lasnik 1993; Chomsky 2000, 2001; etc.) all presuppose that Case is assigned (or checked, or valued) by a head to a noun phrase. Details vary, but what has remained central to all of them is the so-called "Case criterion" (mostly left implicit in the formulation of Case assignment, checking or valuation rules) and "Case filter":

(1)   **Case Filter** (Chomsky 1981; Vergnaud 1982)
        *NP if NP is overt and has no Case

(2)   **Case Criterion**
        Every NP receives one and only one Case; each Case is assigned
        to one and only one NP

Recent research has uncovered abundant cross-linguistic evidence in favor of abandoning both the Case Criterion and the Case Filter: Case can be shown to assigned to nodes other than NPs, to more than one node and by more than one head. In addition, the morphology of case also points at its complex nature, as first noted by Jakobson 1936/1971, and formal link between the syntactic Case and the morphological case is also desirable.

To deal with evidence in a comprehensive way I have proposed (in Matushansky 2008) an alternative approach to syntactic Case, based not on some head-NP relation (be it agreement in φ-features or something else), but rather on MERGE. This view presents a rearrangement of the old ideas about the relation between the morphological and the syntactic case

with the more recent advances into Case Theory, and can be summarized as follows:[1]

    (i) Structural Case is assigned by a head to its sister and percolates down (cf. Stowell 1981). An NP can thus have more than one Case (cf. Merchant 2006; Caha 2007; Richards 2007) and nodes other than NPs can be Case-marked.

    (ii) There are no special Case features. What has been called "Case" corresponds to the uninterpretable counterparts of interpretable features of the assigning head (Pesetsky and Torrego 2001, 2004, 2007; Svenonius 2001; Richardson 2003; Bailyn 2004; Pesetsky 2008).

    (iii) The resulting bundles of uninterpretable features are spelled out by Vocabulary Insertion rules, which include impoverishment rules and can be both specified as to the context of application or underspecified with respect to some features (Halle and Marantz 1993, 1994).

I will first present the proposal in more detail and provide some of the cross-linguistic evidence in favor of the doubly-multiple syntactic Case assignment. I will then show how this proposal can account for such diverse areas of the Russian grammar as predicate case, the genitive of negation, accusative case syncretism, case-assignment with cardinals and case assignment with locative and directional prepositions. Since only a few of these issues can be treated in the standard Case Theory, I argue that Russian presents a strong case in favor of the new approach.

2   Multiple case-assignment

In Matushansky 2008 I propose an alternative view of case-marking, with syntactic Case assigned by a head to its complement, just as suggested by Stowell 1981. To be more precise, with Pesetsky and Torrego 2001, 2004, 2007; Bailyn 2004 and Pesetsky 2008, I argue that the so-called Case-features are in fact the interpretable counterparts of interpretable features.

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[1] Case Theory has traditionally been drafted to account also for the distribution of PRO. As shown by Landau 2006, 2007, PRO receives Case just like other NPs and therefore cannot be argued to be constrained to appear in Caseless or Null-Case positions.

    Case Theory has also been used to deal with the choice of expletives (*there* vs. *it* in English). However, it seems enough to just talk about agreement there, since the analysis is based on the φ-completeness of *it* compared to *there*, and therefore has nothing to do with case.

Unlike these authors, however, I do not reduce Case to one such feature – instead I suggest that all formal features of a head are copied onto its complement (Stowell 1981) and percolate down to (and here my proposal differs from Stowell's) all the leaves. As a result, a terminal node can be marked for a number of uninterpretable features, some of which may be spelled out at PF. Case is thus viewed as a property of a domain rather than of an NP, which therefore entails a purely structural view of Case, not just for nominative and accusative, but in fact for all Case values.

As more than one feature is potentially assigned to a head, we obtain a richer view of syntactic Case as a feature bundle rather than a single feature, which gives us ways dealing with more complicated patterns of Case-marking. However, it then becomes imperative to define how a complex Case-feature bundle is spelled out at PF. To do so, it is necessary to appeal not only to syntactic rules, but to morphological rules as well:
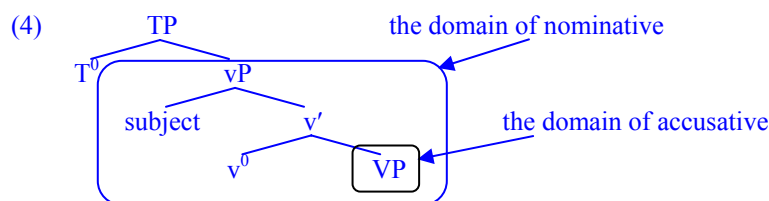
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(3) The Morphosyntax of Case

    a.   Morphological case corresponds to a syntactic bundle of features rather than a single feature (cf. Jakobson 1936/1971, 1958/1984; Neidle 1982; Halle 1994; Halle and Vaux 1997)[2]

    b.   The PF realization of each particular bundle of Case features (the morphological case) is resolved by language-specific vocabulary insertion rules.

The idea that syntactic Case can correspond to more than a single syntactic feature permits us to reconnect Case Theory to morphological case (see Jakobson 1936/1971, 1958/1984; Halle 1994; Mel'čuk 1986; Halle and Vaux 1997). In Matushansky 2008 I argued that this proposal, combined with such standard Distributed Morphology assumptions as impoverishment and underspecification in vocabulary insertion (see Halle and Marantz 1993, 1994), accounts not only for the standard facts dealt with by the standard Case Theory, but also for predicate case marking cross-linguistically. Here I will show how this theory applies to Russian.

2.1 Direct Cases: nominative and accusative

Because of the relative positions of T^0 and v^0, the predictions of the new Case Theory with respect to structural Case assignment are nearly the same as those of the standard Case Theory:

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[2] Maling and Sprouse 1995 also suggest that (3a) applies in syntax, but finer details of their proposal are completely different.

(4)

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            TP                    the domain of nominative
        ╱        ╲
      T⁰          vP
             ╱        ╲
        subject        v′
                    ╱      ╲
                  v⁰        ┌─────┐
                            │  VP │        the domain of accusative
                            └─────┘
```

T^0, v^0, v', vP, TP, VP

If a Case-assigning v^0 is absent, as is the case with unaccusatives, passives and raising verbs, every argument below T, including unergative subjects and unaccusative object, is marked nominative. If, on the other hand, a Case-assigning v^0 is present in the structure, then every argument below it receives its features (accusative). This means that the resulting bundle of Case-features below v^0 will always be more complex than just nominative, and thus we predict that accusative Case is featurally more complex than nominative, which leads to expect (with justification) that the morphological realization of the accusative case will be more complex than that of the nominative.

2.2 Multiple Case-assignment in syntax

Strong evidence that syntactic Case is assigned to constituents larger than NPs comes from the phenomenon of the so-called *Case-doubling* (a.k.a. *Suffixaufnahme*), where several Case suffixes can be stacked on a single NP (see Plank 1995 and references therein). Australian languages such as Kayardild (Merchant 2006; see Mel'čuk 1986; Dench and Evans 1988 and Evans 1995) and Lardil (Richards 2007) have been used as evidence for multiple Case-assignment in syntax; other languages with Case-doubling include Caucasian languages, such as Old Georgian (see Mel'čuk 1986), Romany (Matras 1997) and some Middle East languages (Plank 1995).

(5)   Ngada mungurru, [maku-ntha   yalawu-jarra-ntha   Kayardild
       I   know   woman_C.OBL   catch_PAST C.OBL

       yakuri-naa-ntha   thabuju-karra-nguni-naa-ntha
       fish_M.ABL C.OBL   brother_GEN INS M.ABL C.OBL

       mijil-nguni-naa-nth].
       net_INS M.ABL C.OBL
       I know that the woman caught the fish with brother's net.

(6)   Ngada kangka niween   were-thuru-Ø   wangalk-uru-Ø. Lardil
       I   tell   him_ACC   throw_FUT ACC   boomerang_FUT ACC
       I told him to throw the boomerang.

If Case is assigned by a head to its sister and percolates down, Lardil and Kayardild phenomena are treated straightforwardly: accusative and c-oblique[3] are assigned to the entire control infinitive and CP, respectively, and percolate down to all the leaves, creating the impression of agreement in morphological case.[4] A confirmation of this approach to multiple case-marking comes from Case-agreement in control infinitives (Cecchetto and Oniga 2004; Landau 2006, 2007):

(7)　　Cecchetto and Oniga 2004: Latin

　　　a.　　Ego iubeo te　　　esse　　bonum.
　　　　　　I　order you$_{ACC}$　be$_{INF}$　good$_{ACC}$
　　　　　　I order you to be good.

　　　b.　　Quieto　　　tibi　　　licet　　esse.
　　　　　　quiet$_{DAT}$　you$_{DAT}$　licit-is　be$_{INF}$
　　　　　　You are allowed to stay quiet.

The fact that secondary predicate inside the control infinitival and the controller are marked with the same case looks like agreement, barring the fact that the secondary predicate is related to PRO inside the control infinitival rather than to the controller NP. We assume that Case here is assigned to a larger constituent that contains both the controller and the infinitive, and then percolates down (see also Kracht 2002 on the formal treatment of *Suffixaufnahme*).[5]

To summarize, two major types of evidence have been traditionally presented for multiple Case-assignment in syntax: the presence of several overt case-markers on a single terminal or node (*Suffixaufnahme*, a.k.a.

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[3] As discussed in Evans 1995, Kayardild has "complementizing" cases, used, among other purposes, to mark a clause as a complement of a higher clause. The "c-oblique" in (5) is an instance of such a complementizing case, marking every constituent in the subordinate clause. It could, of course, be argued that this phenomenon is not part of the Case system, but (1) in order to do so, it is desirable to define or at least describe an independent way of determining when something is, and (2) this would be of no use with more straightforward examples of Case-stacking, as in Old Georgian (Mel'čuk 1986) or Romany (Matras 1997).

[4] Note that in Lardil the future marker appears alongside case-marking on the direct object. If so, a novel way of treating Affix Hopping in the verbal domain could be to suggest that tense marking on the verb is assigned in exactly the same way Case is – to the entire sister of the relevant head. One advantage of such a view is that it immediately removes the need for a lowering (counter-cyclic) operation in syntax.

[5] Landau 2006, 2007 suggests that the case on the secondary predicate is received by agreement with PRO, which necessarily entails for him the need to introduce an additional mechanism for transmitting Case from the controller to PRO. The approach advocated here does not face such a problem, as it uses the same mechanism as the one used to deal with Case-agreement.

Case-doubling) and the presence of multiple instances of the same Case-marker on different items (the so-called Case-agreement, as in Latin, or even just Case-concord inside an NP). As in this paper I restrict myself to Russian, Case-agreement will not be an issue, but I will present several instances of multiple Case-assignment to a single node by different heads, which can be used as decisive evidence against the Case criterion (1), and discuss case assignment to non-nominal predicates, which is inconsistent with the Case filter (2).

3 Predicate case assignment in Russian

Cross-linguistically the AP or NP predicate of a small clause is frequently case-marked, either with the same case as the subject (the so-called Case-agreement) or with a special predicate case, whose PF realization may or may not coincide with some other case available in the language). Case-agreement is exemplified in (8) and Case-assignment in (9):

(8)   **Case-agreement** (the predicate is marked with the same case as the subject)

a.   Ciceronem   clarum   habent.   Latin
       Cicero $_{ACC}$ famous $_{ACC}$ consider/hold
       They consider Cicero famous.

b.   Cicero   clarus   habetur.
       Cicero $_{NOM}$ famous $_{NOM}$ consider/hold $_{PASS}$
       Cicero is considered famous.

(9)   **Assigned predicative case**

a.   Ja sčitaju   ee   lingvistkoj.   Russian
       I   consider   her $_{ACC}$ linguist $_{INSTR}$
       I consider her a linguist.

b.   Ona vernulas'   krasavicej.
       she   came back   beauty $_{INSTR}$
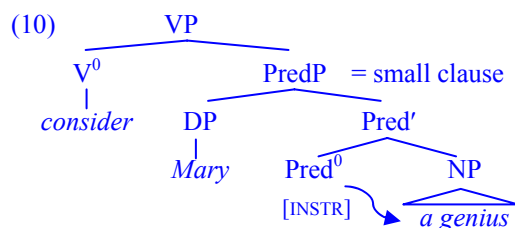   *She came back a beauty.*

Russian predicate case-marking depends on the presence of the verb:
➢ NP and AP predicates are marked with instrumental case
➢ except in the present tense primary predication, where the copula is null and they must be nominative

Exactly the same pattern is observed in Arabic: predicates are marked accusative, except in the present tense, where the copula is phonologically

null and nominative becomes obligatory (Maling and Sprouse 1995, fn.4). In other words, Russian and Arabic predicates are marked with a special case in the presence of an overt verb[6] and receive the default (nominative) case otherwise.[7] It thus becomes imperative to determine how Russian (or Arabic) NP and AP predicates receive Case.

For Russian the usual analysis (Bailyn and Rubin 1991; Bailyn and Citko 1999; Pereltsvaig 2001; Bailyn 2001, 2002, etc.) is based on $Pred^0$, the functional head of the small clause introduced by Bowers 1993. Since $Pred^0$ naturally appears between the subject and the predicate of a small clause, it seems natural to assume that it is $Pred^0$ that assigns instrumental (or any other predicate case) to the predicate:

(10)

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                VP
         ┌──────┴──────┐
        V⁰          PredP    = small clause
         │       ┌─────┴─────┐
      consider  DP          Pred′
                 │      ┌─────┴─────┐
               Mary   Pred⁰        NP
                      [INSTR]     a genius
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It is a standard feature of these approaches that $Pred^0$ is obligatory to mediate (non-verbal) predication. It is derived from Bowers' proposal that $Pred^0$ is necessary to convert its complement (a semantically saturated entity) into a predicate (an unsaturated property or a function). If this or a similar theory is true, $Pred^0$ is indeed obligatory for predication, and we expect all non-verbal predicates to bear predicate case (instrumental in Russian). However, in the present tense in Russian the copula is null and post-copular NPs and APs are marked nominative.

An apparent way of solving this problem would be to suggest that the predicative reading of copular clauses is unavailable in the present tense and only the equative or classificatory reading (see fn. 7) is present. This, however, will be empirically incorrect: the non-predicative reading of a copular clause can be excluded pragmatically, but the null present tense copular clause with a nominative-marked predicate remains grammatical.

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[6] It is often claimed that Russian has not only instrumental depictives, but also case-agreeing ones. It can be argued (Peškovskij 1956, Pereltsvaig 2001) that the latter are really split NPs.

[7] With an overt *be*, the post-copular NP or AP can be marked either with nominative or instrumental. We follow Rothstein 1986, Bailyn and Rubin 1991, Bailyn and Citko 1999, Pereltsvaig 2001, among others, in assuming that only instrumental marking corresponds to semantic predication; nominative marking is a sign of equative or classificatory copula.

(11) shows how to pragmatically rule out the classificatory/equative reading in the past tense, where they are distinguished by case-marking:

(11). Context: And how did they earn their living?

Iisus   byl   * plotnik/✓plotnikom,   a   Magomet
Jesus   was   carpenter $_{NOM/INSTR}$ and Mohammed

byl   *kupec/✓kupcom.
was   merchant $_{NOM/INSTR}$
Jesus was a carpenter and Mohammed was a merchant.

We then use the same context to exclude the non-predicative reading of the present-tense copular clause in (12):

(12)   Context: And how do they earn their living?

Magdalina – prostitutka, a   Iisus –   plotnik/*plotnikom
Magdalen   prostitute   and Jesus   carpenter $_{NOM/*INSTR}$
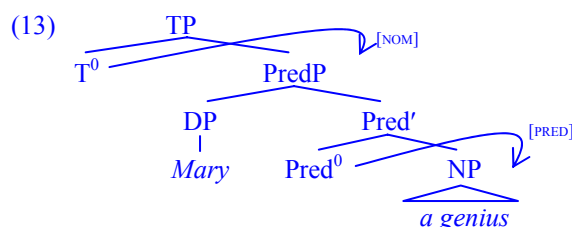*Magdalen is a prostitute and Jesus is a carpenter.*

Since the example is grammatical, the predicative reading is available and PredP must be present – but instrumental cannot be assigned. If it is Pred^0 that assigns the predicate case, this pattern is unexpected, and the role of tense or the overtness of the copula is totally unclear.

One way of circumventing the problem is the brute force approach due to Bailyn 2001, 2002: there are two distinct Pred heads, one is c-selected by T and assigns no Case and the other is c-selected by V and assigns instrumental.

I propose here an alternative solution, based on the side effect of the proposal advocated here: if Case features are always assigned by a head to its sister, then in different syntactic environments the same element, e.g., the predicate of a small clause, will receive different sets of Case-features.[8]

Following Bailyn and Rubin 1991; etc., I assume that in the absence of an overt copula the small clause merges directly as the complement of T. However, unlike in this proposal, no c-selection is involved and it is always exactly the same Pred^0 that mediates non-verbal predication:

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[8] I reiterate again that this is merely a shorthand: in actuality, interpretable features of a head are copied onto its complement; it is the uninterpretable counterparts of interpretable features on the leaves of a tree that correspond to what is standardly known as "case".

(13)

$$\begin{array}{c}\text{TP} \\ \text{T}^0 \quad \text{PredP} \quad \text{[NOM]}\\ \text{DP} \quad \text{Pred}' \\ \textit{Mary} \quad \text{Pred}^0 \quad \text{NP} \quad \text{[PRED]}\\ \textit{a genius}\end{array}$$

At least the following two sets of "Case features" are involved in this derivation: those coming from T^0 (henceforth, [nom]) and those coming from $Pred^0$ (henceforth, [pred]). The small clause subject is in the domain of T only, while the small clause predicate is in the domain of both T^0 and $Pred^0$. Therefore, in present tense copular sentences the predicate receives [nom] from T^0 and [pred] from $Pred^0$, while the subject gets only [nom].

It is easy to see that once an overt verb appears, the featural bundles become more complex:

(14)

$$\begin{array}{c}\text{vP} \quad \text{[EVENT]}\\ \text{v}^0 \quad \text{vP} \\ \text{EVENT} \quad \text{DP} \quad \text{v}' \\ \textit{Alice} \quad \text{v}^0 \quad \text{VP} \quad \text{[ACC]}\\ \text{V}^0 \quad \text{PredP} \\ \textit{believe} \quad \text{DP} \quad \text{Pred}' \quad \text{[PRED]}\\ \textit{Mary} \quad \text{Pred}^0 \quad \text{NP} \\ \textit{a genius}\end{array}$$
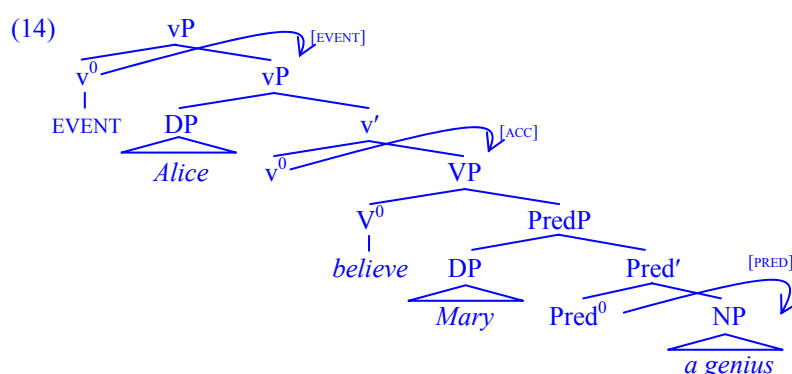
We assume in (14) that the projection of a lexical verb is necessarily associated with a v^0 head introducing the verb's eventuality argument. Its bundle of interpretable features is dubbed [event] and it is assumed to appear higher than all the thematic arguments of the verb:

Assuming that the morphological realization of the feature bundle received by each terminal node is achieved along the lines drawn in (3), the pattern of predicate case assignment in Russian can be accounted for by the following vocabulary insertion rules:[9]

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[9] The labels ACCUSATIVE, NOMINATIVE, etc., should be taken as referring to the actual lexical entries – as vocabulary insertion rules for those are considerably more complex due to their interaction with gender and number, and also undergo syncretism, I use simplified representations here.

(15)   Vocabulary insertion rules (a fragment):
       [pred, event] → INSTRUMENTAL
       [acc] → ACCUSATIVE
       [nom] → NOMINATIVE

In other words, it is the combination of two features, one assigned by Pred^0 and the other assigned by a c-commanding verb, that is realized as instrumental. In the absence of either the conditions for instrumental case affix insertion are not fulfilled, which is why the subject of a small clause or the predicate in the present tense primary predication are never marked instrumental. Instead the subject of the small clause in (14) is marked accusative, while the subject and the predicate of the small clause in (13) receive nominative. The presence of [acc] or [nom] does not affect case-marking of the predicate in (14), and the presence of [nom] or [event] has no effect on the case-marking of the small clause subject in (14).
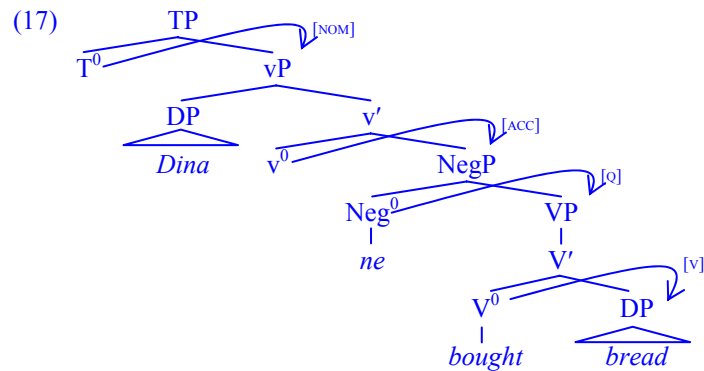
4   Genitive of negation

The hypothesis that more than one syntactic Case can be assigned to any one syntactic node permits us to account for another Slavic phenomenon where independent considerations force upon us the assumption that more than one syntactic Case has to be assigned to some NPs – the so-called Genitive of Negation.

The Genitive of Negation phenomenon can be roughly described as follows: with sentential negation non-specific indefinite direct objects and some subjects receive genitive case instead of accusative or nominative, respectively (Babby 1980; Pesetsky 1982; etc., etc.):

(16)   a.   Moroz   ne   čuvstvovalsja.
            frost$_{NOM.M.SG}$ NEG   be.felt$_{M.SG}$
            The frost was not felt.

       b.   Moroza   ne   čuvstvovalos'.
            frost$_{GEN.M.SG}$ NEG   be.felt$_{N.SG}$
            No frost was felt (there was no frost). (Babby 1980:59)

The approach advocated here offers a natural algorithm for dealing with the genitive of negation for direct objects if we assume that NegP is projected below the base position for unergative subject, i.e. between vP and VP.[10] Following Jakobson 1958/1984 and Bailyn 2004; I assume that genitive corresponds to the feature [Q]:

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[10] Such a non-standard position for sentential negation is caused by the more or less standard assumption that only underlying objects are subject to genitive of negation. This

(17)

TP
  T⁰
  vP [NOM]
    DP
      Dina
    v′
      v⁰
      NegP [ACC]
        Neg⁰
          ne
        VP [Q]
          V′
            V⁰
              bought
            DP [V]
              bread

The following morphological rules can account for the case-marking under negation. This time we need an impoverishment rule as well as the usual vocabulary insertion rules:

(18) $[Q] \rightarrow \emptyset /$ __ [specific][V]
      $[Q] \rightarrow$ GENITIVE
      $[acc] \rightarrow$ ACCUSATIVE
      $[nom] \rightarrow$ NOMINATIVE

The presence of sentential negation introduces the feature [Q], which is realized as the genitive case-marking, except on semantically [specific] underlying objects, where it is deleted. In the absence of [Q] both objects and subjects receive their normal case-marking. However, as we will see in the next section, accusative realization is not as simple as the syntax would lead us to assume, since this cell of the case paradigm undergoes syncretism with other cells.

5   The internal structure of Case

It is well-known since at least Jakobson 1936/1971, 1958/1984 that in two of the three Russian declension classes the accusative case coincides with other cases. For second declension nouns it surfaces as nominative if the noun is inanimate and as genitive if it is animate, and for third declension nouns is always coincides with nominative:

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assumption is known to be incorrect (Levin and Rappaport Hovav 1995:275; Pereltsvaig 2000), as some unergative subjects can also surface as genitive under negation. I adopt this incorrect generalization in view of two facts: (a) the correct generalization has not so far been established, and (b) my purpose here is mostly to demonstrate how multiple Case assignment can be handled under my proposal.

(19) Ja   vižu knig-u/ žurnal/   mal'čik-a/ lan'
      I$_{NOM}$ see$_{1SG}$ book$_{ACC}$ journal$_{ACC=NOM}$ boy$_{ACC=GEN}$ doe$_{ACC=NOM}$
      I see a/the book/journal/boy/doe.

Inanimate forms are easy to handle if nominative is the default case in Russian (cf. Jakobson 1936/1971, 1958/1984; Bobaljik 2002) – we use an impoverishment rule once again:[11]

(20) [acc] → ø / __ [III] and [-animate][II]
      [Case] → NOMINATIVE

Animate forms are considerably more complicated, since genitive, as we have assumed so far, corresponds to a feature bundle entirely different from accusative. Following Bailyn 2004 we have abbreviated the genitive feature bundle as [Q].

To handle this issue, Jakobson 1958/1984 proposed viewing Russian cases as complex rather than simplex, specified by a combination of three binary features: [α direction], [α marginality] and [α quantification]. In addition, Jakobson makes use of two more features: [+ direct] (the feature of the nominative and accusative cases only, actually corresponding to the combination of [-marginal] and [-quantificational]) and [+ definite] (a feature differentiating genitive and accusative from others).

	direction	quantification	marginality	definiteness
nominative	-	-	-	-
accusative	+	-	-	+
genitive	-	+	-	+
dative	+	-	+	-
locative	-	+	+	-
instrumental	-	-	+	-

Table 1: Jakobson's featural composition of Russian cases

In the Distributed Morphology framework Jakobson's impoverishment and vocabulary insertion rules could look as follows:

(21) [definite] → ø / __ [III] and [-animate][II]
      [directional] → ø / [+animate][II]

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[11] An immediate prediction made by having radically underspecified rules like this one is that no combination of features is predicted to be ungrammatical. This is clearly incorrect, as will be shown below, but I will set this complication aside here, see also fn. 15.

[+directional, +definite, -quantificational] → ACCUSATIVE
[+marginal, +quantificational] → LOCATIVE
[+directional, +marginal] → DATIVE
[+marginal] → INSTRUMENTAL
[-marginal] → GENITIVE
[Case] → NOMINATIVE

With this rule system, where the lexical entry yielding accusative is highly specified, an underlying accusative case turns into genitive if (with second declension animates) impoverished of the feature [directional]. The loss of the feature [definite] in the third declension and for inanimate nouns of the second declension creates a feature bundle that can only be realized as nominative. Finally, the feature [quantificational] contributed by negation creates a feature bundle spelled out as genitive.

It seems obvious that Jakobson's proposal does not tell us anything deep about Case in general, as his "basic" features have been introduced with the sole goal of handling Russian (or perhaps more generally, Slavic or Indo-European) case-syncretism. It can also deal with the fact that in Georgian, accusative has merged with dative (both being [+directional] in his view), but this would seem to be more of an accident than an actual prediction, and it definitely can't straightforwardly handle the distribution of directional and locative cases across Indo-European (see section 7) or the cross-linguistic data suggesting that the dative feature bundle contains the genitive feature bundle (Asbury 2006; Caha 2007 and Medová 2008). Its advantage, however, lies in that it provides us with the first indication of the complexity of the problem, because here the surface accusative may correspond to more than one combination of syntactic Case features. This is a desirable result for a variety of reasons, of which Russian case syncretism is only one. To clarify the issue, consider the fact that cross-linguistically the number of available morphological cases is lower than the number of syntactic environments that cases can be assigned in: for instance, it is often the case that accusative is not limited to the direct object but can also appear with some prepositions and on some adverbials (e.g., duration adverbials in Russian):

(22) a. Lisa čitaet   pro   vojnu.   Russian
          Lisa read$_{\text{PRES-3SG}}$ about war$_{\text{ACC}}$
          Lisa reads/is reading about (the) war.

      b. Lisa čitala   celuju noč'.
          Lisa read$_{\text{PRES-3SG}}$ entire$_{\text{ACC}}$ night$_{\text{ACC}}$
          Lisa read for the entire night.

If surface accusative corresponded to a particular feature, as it does in more standard frameworks, we would not have expected either this multi-functionality of accusative (or dative, or locative…) or case-syncretism: it could be but an accident that prepositions standardly can assign the same cases as verbs. If, on the other hand, as advocated here, "accusative case" is just the spell-out of uninterpretable counterparts of the formal features of a given head, we might expect verbs and prepositions to share some of these features, leading to identical morphological realizations as a result of underspecified vocabulary insertion rules. On the other hand, we would also know that the surface accusative does not always correspond to the same underlying featural makeup, which would lead us to expect such dissimilarities between various NPs marked accusative on the surface as the inability of a preposition-assigned accusative case to turn into genitive under negation:

(23)   a.   Lisa (ne)   letit v Latviju/*Latvii.
           Lisa (NEG) flies to Latvia $_{ACC/GEN}$
           Lisa is (not) flying to Latvia.

       b.   Lisa ne   slyšala pro   muzyku/*muzyki.
           Lisa NEG heard   about music $_{ACC/GEN}$
           Lisa didn't hear about music.

One could suggest, as an alternative to the multiple feature account, that a preposition is a barrier for Case-assignment from outside. In fact, this is not always so: in the *waß-für* construction in Russian and German the preposition *for* does not assign Case, which is assigned from outside (Bailyn and Citko 1999; Bailyn 2002).[12] This means that being opaque for external Case-assignment is a property of a particular lexical item and thus a morpho-syntactic feature, which, in our proposal, would always be spelled out on the complement. This would naturally result in a richer case specification, yielding lower likelihood to undergo case-changing processes. Such being the case, it seems more parsimonious to rely on the natural assumption that prepositions and verbs (or v^0) can have partially intersecting feature matrices which both result in the surface accusative, but fail to both yield a surface genitive rather than postulate the additional property of being a barrier to external Case-assignment, which can be so easily reformulated into essentially the same mechanism.

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[12] Unfortunately, the complement of the Russian preposition *za* 'for' must be either an interrogative or an exclamative presuppositional DP, which never surface as genitive under negation for purely semantic reasons. As a result, it cannot be established whether *za* 'for' is a barrier for genitive of negation.

6 Case-assignment with cardinals

Another environment where multiple Case-assignment seems unavoidable is cardinal-containing NPs, exemplified in (24). As discussed by Mel'čuk 1985; Babby 1987; Franks 1994 and many others, case-marking in an NP containing a cardinal depends on the case assigned to that NP:[13]

(24)   a.   tridcat'   šagov   direct case: genitive under cardinal
            thirty $_{NOM/ACC}$ steps $_{GEN}$

       b.   tridcat'ju   šagami   instrumental case: throughout
            thirty $_{INSTR}$ steps $_{INSTR}$

       c.   v tridcati   šagax   locative case: throughout
            in thirty $_{LOC}$ steps $_{LOC}$

If the entire NP is assigned nominative or accusative, the lexical NP is case-marked by the cardinal;[14] if the NP gets an oblique case, the lexical NP is marked with that case. Once again the pattern seems to suggest that lexical insertion is underspecified for some features, as predicted by (21):

(21)   [definite] → ø / __ [III] and [-animate][II]
       [directional] → ø / [+animate][II]
       [+directional, +definite, -quantificational] → ACCUSATIVE
       [+marginal, +quantificational] → LOCATIVE
       [+directional, +marginal] → DATIVE
       [+marginal] → INSTRUMENTAL
       [-marginal] → GENITIVE
       [Case] → NOMINATIVE

As genitive is less specified than any of the other oblique cases, they take preference over its featural specifications. Direct case bundles, on the other hand, fail to do so due to the feature [quantificational] assigned by the cardinal.[15]

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[13] This is not a purely Russian or even Slavic phenomenon: the same effect under the same conditions also occurs in such Finno-Ugric languages as Finnish (Hurford 1975, 2003) and Inari Sami (Nelson and Toivonen 2000).

[14] The case assigned by the cardinal is usually genitive, except with low cardinals (1-4) – see Mel'čuk 1985; Babby 1987 and Franks 1994 for details, which we disregard here.

[15] Case-feature conflict might also account for the possibility of the approximative PP *okolo Num NP* 'about N NPs' in direct Case positions but not elsewhere (Corver and Zwarts 2004): if the preposition *okolo* 'about, near' is transparent for external Case-assignment, the feature-bundle resulting from the combination of the "genitive" features assigned by it with case-features assigned to the entire PP could be morphologically "interpretable" for direct

Unlike the genitive assigned by cardinals, genitive assigned by nouns cannot be overwritten externally. If Russian cardinals are deficient nouns (Ionin and Matushansky 2006) that do not block Case-assignment as do normal nouns, this fact can be derived.

Likewise, the paucal case is known to be very similar to genitive – if paucal numerals are even more deficient nouns (which they are, as they decline like adjectives and some of them even show agreement), the link would be naturally explained by the smaller set of features that such nouns assign to their sisters.

7 Directional and locative prepositions

In several Indo-European languages including Russian, the Case assigned by certain prepositions depends on whether the entire PP is interpreted as directional or locative (Bierwisch 1988; Zwarts 2005, 2006; den Dikken 2006 and Caha 2007). While the directional interpretation corresponds to the accusative case in these languages, the locative interpretation results in a variety of oblique cases, even within one language:

(25) a. Marina sprjatala knigu **pod stol**. Russian
Marina hid book under table$_{ACC}$
Marina hid the book under the (surface of the) table.

b. Marina sprjatala knigu **pod stolom**.
Marina hid book under table$_{INSTR}$
Marina hid the book (somewhere) under the table.

(26) a. Marina bežit **v gorod**.
Marina runs in city$_{ACC}$
Marina is running to the city.

b. Marina bežit **v gorode**.
Marina runs in city$_{LOC}$
Marina is running in the city.

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cases but not for oblique ones. It is interesting to note here that prepositions, even assigning accusative, cannot be combined with *okolo* 'about, near'. One could suggest that this is due to the general impossibility of combining two prepositions in Russian, had it not been for the fact that we don't know why two prepositions cannot be so combined, while the case incompatibility story actually offers an explanation for it.

However, we must then assume that, despite underspecification, some feature-bundles cannot be spelled out. A possible reason for this can be semantic: given that Case-features are interpretable (in the head they originate with), two features, even though not interpreted at LF, could nonetheless give rise to a conflict at the interface. Due to the complexity of this issue, I leave it as a topic for future research.

Locative interpretation corresponds to the locative case in Latin[16] and as dative in German (Zwarts 2006):

(27) a. **Sub imperium Romanum** Gallia cecidit.   Latin
          under rule$_{ACC}$ Roman$_{ACC}$ Gaul fall$_{PRET}$
          Gaul fell under the Roman rule.

      b. Multos annos Gallia **sub imperio Romano** fuit.
          many years Gaul under rule$_{LOC}$ Roman$_{LOC}$ be$_{PRET}$
          For many years Gaul was under Roman rule.

(28) a. Alex tanzte **in das Zimmer**.   German
          Alex dance$_{PST}$ in the$_{ACC}$ room
          Alex danced into the room.

      b. Alex tanzte **in dem Zimmer**.
          Alex dance$_{PST}$ in the$_{DAT}$ room
          Alex danced in the room.

Given that accusative has been suggested to be underspecified with respect to oblique cases, it is to be expected that the syntax of directionals would be less complex than that of locatives. In fact, the opposite is true: Koopman 2000; van Riemsdijk and Huybregts 2002; Tungseth 2003; Zwarts 2005; Svenonius to appear and Caha 2007, among others, observe that cross-linguistically directional PPs syntactically contain locative PPs, as indicated in (29) – see also Bierwisch 1988.

(29)
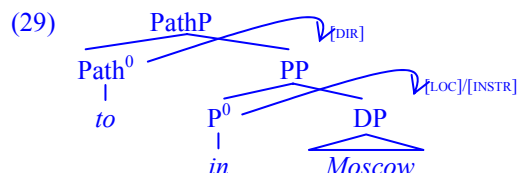
As can be seen from the tree in (29), the directional feature-bundle is predicted to be more complex than the locative feature-bundle: why is the more complex feature bundle realized as a "simpler" case?[17] As before,

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[16] In general, the Latin locative has the same surface representation as ablative, but for some words (names of towns, cities, small islands and the nouns *domus*, *rus* and *humus*) a dedicated form exists.

[17] I would like to reiterate here that the standard Case Theory cannot deal with these facts, as no Case-stacking is predicted there. Caha 2007 proposes an alternative approach to the case alternation in directional and locative PPs via stacking Case projections on top of the DP and subsequent "Case-peeling". This proposal cannot, unfortunately, be extended to all the phenomena discussed here.

this can be accounted for if the surface accusative corresponds to a subset of the Case-features assigned by a directional prepositional complex, due to the underspecified nature of vocabulary insertion rules.

Independent evidence in favor of this hypothesis can be drawn from the so-called "circumstantial cases" of Russian (cf. Garde 1998:265-269), which can be seen with demonstratives, universals, wh-NPs and the noun *dom* 'home'.[18] At least two of these cases, illative and temporal, seem to be subject to impoverishment, surfacing as respectively accusative and instrumental, as we will see below.

	distant ('there')	prox. ('here')	univ. ('e.where')	interr. ('where')	*dom* ('house')
nom.msg	*t-ot*	*sej*	*ves'*	*kto/čto/koj*	*dom*
gen.msg	*t-ogo*	*s-ego*	*vs-ego*	*kogo, etc.*	*dóm-a*
inessive	*t-am*	*z-des'*	*vez-dé*	*g-de*	*dóma*
illative	*t-udá*	*s'-udá*	*vs'-údu*	*k-udá*	*domój*
ablative	*ot-t-úda*	*ot-s'-úda*	*ot-ovs'-údu*	*ot-k-úda*	-
temporal	*t-ogdá*	*tepér'*	*vse-gdá*	*k-ogdá*	-

Table 2: Circumstantial cases of Russian

Thus let us assume that the prepositions *v* 'in', *na* 'on', *pod* 'under' and *za* 'behind' assign the "locative" case feature bundle which turns into the illative case feature bundle when the PathP projection is added. In Jakobson's system illative and accusative would clearly share the feature [directional]. For all NPs but those listed in Table 2, illative undergoes impoverishment of "locative" features, yielding a surface accusative.[19]

Something similar seems to take place for temporal case. To indicate a point in time, spatial PPs are normally used. However, with a small set of nouns bare instrumental is required, as exemplified below:[20]

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[18] On the declension of these functional NPs see Halle and Matushansky 2006.

The "ablative case" seems to be formed on the basis of the preposition *ot* 'from' with the illative case and thus is not relevant for our purposes.

Garde also includes *tut'* 'here' for the proximate inessive and the derived form *sejčas* 'now' (lit., 'this (very) hour') for temporal proximate; I believe they are not relevant.

[19] Illative pronouns do not appear in PPs; the only exception is the somewhat marked *v nikuda* '(to) nowhere', as in 'a road to nowhere'

[20] There exists a locative use of bare instrumental, but its meaning is more like "by way of" (e.g., *korotkoj dorogoj* 'by the short road', *lesom* 'through the forest', etc.), very similar to the regular meaning of instrumental.

(30) a.   v   polden'/   dva   časa/   subbotu   directional PP
        in   midday $_{ACC}$/ two $_{ACC}$ hours $_{ACC}$/ Saturday $_{ACC}$
        at midday/at two/on Saturday

     b.   v   marte/   buduščem godu   locative PP
        in   March $_{INSTR}$/ next $_{INSTR}$ year $_{INSTR}$
        in March/next year

(31) a.   večerom/   zimoj   bare instrumental
        evening $_{INSTR}$ winter $_{INSTR}$
        in the evening/in winter

     b.   * v   večer/   večerom/   zimu/   zimoj   *PP
        in   evening $_{ACC}$ evening $_{INSTR}$ winter $_{ACC}$ winter $_{INSTR}$

     The choice between a directional PP and a locative PP is determined primarily by the length of the relevant time interval (instrumental is used with longer time intervals), but the temporal use of instrumental seems to correspond to the locative PPs. This conclusion is supported by the fact that, as noted above, in their locative use the prepositions *pod* 'under' and *za* 'behind' also assign instrumental, while the locative *v* 'in' never does. It would seem therefore that the temporal case can be impoverished and realized as instrumental for NPs denoting longer time periods; with some of these NPs the preposition is omitted.[21]

8   Lexical (quirky) cases

The final point to consider is quirky cases – our proposal provides us with a natural way of accounting for them.

     Woolford 2006 separates non-structural Cases into two sets: they can be lexical (idiosyncratic, assigned by a particular lexical item) or inherent (associated with a particular theta-role). Whereas inherent cases can be dealt with by constraining the relevant vocabulary insertion rules to apply in certain semantic environments (e.g., in the context of the theta-feature [GOAL]), lexical cases in our new Case Theory are simply uninterpretable equivalents of specific lexical heads (plus, potentially, everything else in the structure above them).

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[21] With the nouns as *den'* 'day' and *noč'* 'night' bare instrumental can be replaced by a directional PP if some level of syntactic complexity is reached. I will not attempt an analysis of this phenomenon here (see also fn. 16).

         (i)   v   noč'   *(s   vtornika   na   sredu)
              in   night $_{ACC}$ with   Tuesday   on   Wednesday
              on Wednesday night

To provide a straightforward example, it is well-known that Russian verbs of management assign instrumental case to their direct objects:

(32) a.   upravljat'   *fabriku/✓fabrikoj
            manage $_{INF}$ factory $_{ACC/INSTR}$

      b.   rukovodit'   * zavod/✓zavodom
            direct $_{INF}$ industrial plant $_{ACC/INSTR}$

      c.   pravit'   * stranu/✓stranoj
            rule $_{INF}$ country $_{ACC/INSTR}$

To account for this lexical instrumental it is sufficient to postulate the following language-specific rule:[22]

(33)   Vocabulary insertion redundancy rules:
       [MANAGE, DEFINITE] → INSTRUMENTAL

In the example (32) it is a whole lexical semantic class of verbs that assign the same feature to their complements. However, under our view it may even be the lexical specification of a single root (which can also be viewed as a lexical-semantic feature) that would determine the surface case. This is indeed attested, as shown by the Russian verb *xvatat'* 'to suffice', which assigns genitive to its object (and dative to its subject, but this is irrelevant here). The relevant vocabulary insertion rule can then be stated as blatantly as in (35), or with some more subtlety.[23]

(34)   Nam   xvataet   * rabota/*rabotu/✓raboty.
       us $_{DAT}$ suffices   work $_{NOM/ACC/GEN}$
       We have enough work.

(35)   Vocabulary insertion rules:
       [√SUFFICE] → [+quantificational]

In other words, if Case features are just uninterpretable equivalents of interpretable, i.e., semantic, features, then a given root can (and perhaps

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[22] In the best of all possible worlds, there has to be some semantic similarity that is exploited here. Perhaps, there is a connection between the notion of management and the notion of an agent (as in passives, where the agent receives instrumental).

[23] As genitive is the case of quantification and part-whole relations in Russian (see Bailyn 2004 and references therein), presumably it is this part of the meaning of the verb *suffice* that is exploited here. If true, this would allow us to rely on features more functional than lexical, which would bring us closer to the intuition that lexical cases should always be correlated with some formal semantic features.

must) function as a Case assigner. Depending on the vocabulary insertion redundancy rules, some of these roots may be reflected in the surface morphological cases.

As noticed by Babby 1978, 1987:95-97, Russian lexical cases cannot be overridden by structural cases: thus the instrumental case of the direct object in (32) doesn't change to genitive inside a nominalization or under negation, as predicted by our vocabulary insertion rules (21):[24]

(36) a. upravlenie   fabrikoj/*fabriki   nominalization
          management   factory $_{INSTR/*GEN}$
          management of a/the factory

      b. čtenie   knig
          reading books $_{GEN}$
          reading of (the) books

(37) a. Uborščik   ne   upravljaet   fabrikoj/*fabriki.   negation
          janitor   NEG manage $_{PRES-3SG}$ factory $_{INSTR/*GEN}$
          A/the janitor doesn't manage a/the factory.

      b. Uborščik   ne   čitaet   knig.
          janitor   NEG read $_{PRES-3SG}$ books $_{GEN}$
          A/the janitor doesn't read books.

To summarize, we hypothesize that the real reason why most lexical cases usually override structural cases lies in the more specific structural descriptions of the vocabulary insertion rules responsible for them, which places them higher than the less specified rules for the direct cases in the general list of vocabulary insertion rules. This also means that adding a Case feature (as happens with the genitive of negation or the NP-internal genitive) to a lexical case bundle does not lead to the same result for all lexical cases, but rather depends on the composition of the feature bundle underlying each particular lexical case. Under this very strong view even

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[24] Another syntactic environment that Babby 1987 uses to support his distinction between lexical and structural cases is the subject of passives that is marked instrumental, and with dative objects in his examples passivization is indeed impossible. However, with verbs of management passivization is, in fact, allowed, which is why we have included the feature [+ definite] in the structural description of the vocabulary insertion rule (33). On the other hand, while the combination of the genitive in (34) with the NP-internal genitive and with the genitive of negation is possible, passivization of (34) is, as predicted by Babby 1987, completely ungrammatical. This varying behavior of different cases suggests that the simple fact of combining a lexical case and a structural case is not enough to predict the outcome of this combination. Due to the complexity of the question, I will not discuss it any further, leaving it as a topic for future research.

a root may serve as the source for an uninterpretable feature assigned to its sister and reflected in the vocabulary insertion rules, which, we argued, is precisely what happens with verbs assigning quirky cases to their complements, as in (34).

9 Conclusion

I have argued that adopting a particular theory of syntactic Case, namely that proposed in my prior work (Matushansky 2008), permits us to easily deal with a variety of phenomena in Modern Russian, where in certain environments more than one syntactic Case can be shown to be assigned to a particular NP. A strong support of this theory comes from the fact that it can deal with such different problems as the genitive of negation, predicate case, case syncretism, locative vs. directional cases assigned by the same preposition, mixed case-assignment in cardinal-containing NPs and finally, with lexical cases.

I have proposed that all these phenomena can be explained under the following three assumptions:

(1) Syntactic Case is assigned by a head to its sister. Thus more than one syntactic Case can be assigned to a given node.

(2) Case features are just uninterpretable counterparts of interpretable features of a given syntactic head (potentially including lexical semantic features of a root). Thus more than one syntactic Case can be assigned by a single head.

(3) The surface realization of a Case-feature bundle is determined by the language-specific vocabulary insertion rules, which, as is assumed for such rules in general, can be underspecified with respect to which feature bundle they apply to, or include the structural description of a particular semantic or morphological environment.

As a result it becomes possible to provide a principled account for several case variation phenomena in Russian and offer the first sketch of a comprehensive way to deal with the widely attested phenomenon of case syncretism.

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