Case checking vs Case assignment and the Case of adverbial NPs

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In this squib I argue that the Case checking theory is empirically superior to the Case assignment theory based on genitive of quantification (GQ) in Slavic. I also argue that Slavic GQ provides evidence that adverbial NPs (Larson’s (1985) bare NP adverbs) are not subject to the traditional Case Filter and suggest that the Case of such NPs is interpretable. During the discussion, the issue of how Case-marked modifying adjectives and non-initial NP conjuncts are Case-licensed will also be addressed.

The squib is organized as follows: Section 1 summarizes the basic properties of Slavic GQ. In section 2 I show that GQ can tease apart Case checking and Case assignment. Section 3 discusses Case properties of adverbial NPs.

1 Introduction: Genitive of Quantification

Examples (1)-(2) show what happens when a numeral NP occurs in a structural Case context in Russian.¹

(1) a. Ivan kupil odnu mašinu.
    Ivan bought one(acc) car(acc.sing)

    b. *Ivan kupil odnu mašiny.
    Ivan bought one(acc) car(gen.sing)

(2) a. Ivan kupil pjat’ mašin.
    Ivan bought five cars(gen.pl)

    b. *Ivan kupil pjat’ mašiny.
    Ivan bought five cars(acc.pl)

¹I thank Steven Franks, Sandra Stjepanović, anonymous Linguistic Inquiry reviewers, and participants of FDSL 5 and my seminar at the University of Connecticut for helpful comments and suggestions.

²Case information is indicated in the glosses only where it is relevant.
There is somewhat of a controversy regarding whether \( pjat' \) in (2a) is a syncretic nom/acc or a Caseless form (for relevant discussion, see Franks (1994) and Bošković (to appear), among others). What is important for our purposes is that the numeral always takes this form when GQ is assigned. Note also that I ignore paucal numerals 2-4, due to the controversy regarding whether they pattern with \( one \) or \( five \). (Compare Babby (1987) and Franks (1994) with Rakhlin (2003). Rakhlin argues that what is standardly analyzed as gen.sing GQ with 2-4 is actually paucal nom/acc.)

All other Case patterns for the numeral and the following noun in (3)-(4) are unacceptable.

With \( one \), both \( one \) and the noun receive their Case from the verb. However, with a higher numeral like \( five \), the noun receives genitive. This pattern is traditionally interpreted as indicating that only higher numerals have the ability to assign GQ. As for inherent Case contexts, when a numeral NP occurs as an object of an inherent Case assigning V, as in (3)-(4), both the noun and the numeral (\( one \) as well as \( five \)) bear the inherent Case in question.

(3) Ivan vladeet odnoj fabrikoj.
   Ivan owns one(instr) factory(instr.sing)
(4) a. Ivan vladeet pjat'ju fabrikami.
   Ivan owns five(instr) factories(instr.pl)
   b. *Ivan vladeet pjat' fabrik.
   Ivan owns five factories(gen.pl)

The descriptive generalization is that GQ overrides structural (2), but not inherent Case (4). There are many analyses of the basic GQ paradigm in the literature. Most authors assume that the reason why GQ overrides structural accusative in constructions like (2) is that the GQ assigner, the numeral, is closer to the relevant noun than the verb. The strategy pursued with respect to (4) is to enforce the satisfaction of the Case property of the inherent Case assigning verb independently of the distance factor. Freidin and Babby (1984) and Babby (1985) do this by appealing to the Principle of Lexical Satisfaction, which requires that lexical properties be satisfied at all levels of representation. Assuming that instrumental Case assignment is an idiosyncratic property of the verb that must be specified in the lexicon, it follows that instrumental will take precedence over any other Case-licensing strategy in (3)-(4) (see, however, Franks (1998, 2002) and

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Bošković (to appear) for some arguments against this analysis. Franks (1994, 1995) presents an analysis based on Chomsky’s (1986) Case theory, in which structural Case is assigned at S-Structure and inherent Case at D-Structure, and proposes that GQ is a structural Case in Russian. Factory then must bear instrumental in (4) because the verb assigns its inherent instrumental Case at D-Structure before the Case-assigning ability of the Q is activated. On the other hand, Bošković (to appear), who adopts the gist of Chomsky’s (1986) theory of inherent Case (but does not require assuming D-Structure and S-Structure as levels of representation), argues that GQ cannot override inherent Case because, as argued by Chomsky, inherent Case is associated with θ-role assignment: as a result, if an inherent Case marking verb fails to check its inherent Case against its object, it will also fail to θ-mark it. Under this analysis, (4b) ends up violating the Θ-Criterion. Θ-considerations are irrelevant in a structural Case assigning context since structural Case is not associated with θ-role assignment in Chomsky’s (1986) Case system. For ease of exposition, I will adopt Bošković’s (to appear) analysis in the discussion below.

Turning to Serbo-Croatian (SC), GQ in SC patterns with GQ in Russian with respect to structural Case environments. However, SC differs from Russian in that a higher numeral NP cannot occur as an object of an inherent Case assigning verb. (From now on I will refer to GQ higher numeral NPs as QPs, following the standard assumption that QP dominates NP in such structures.)

(5) Ivan se zahvaljuje jednom čovjeku.

Ivan refl thanks one(dat) man(dat.sing)

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4The fact that the verb is not the closest potential Case licenser is then irrelevant because the more economical derivation does not converge due to a θ-Criterion violation. Note that Bošković (to appear) couches his analysis in terms of Case checking, while other authors mentioned above assume Case assignment.

5I am ignoring here many important issues regarding Slavic GQ since they are not directly relevant to the theoretical points raised in sections 2-3.

4Inherent Case assigning verbs may assign any of dative, instrumental, or genitive. Genitive assigning verbs, however, might be exceptional in this respect. With such verbs it is actually difficult to tell whether the verb or the numeral assigns genitive to the noun, so I will put them aside here. I am also putting aside contexts in which a numeral NP functions as the complement of a preposition. Franks (1994, 1995) argues that the preposition in such contexts behaves differently from the verb. (The analysis of (28) below can actually be extended to much of the P-complement data Franks examines.)
Ivan is thanking one man.’

(6) a. *Ivan se zahvaljuje pet ljudi.
Ivan refl thanks five people(gen.pl)

b. *Ivan se zahvaljuje pet ljudima.
Ivan refl thanks five people(dat.pl)

‘Ivan is thanking five men.’

(7) On je ovladao jednom zemljom.
he is conquered one(instr) country(instr.sing)

‘He conquered one country.’

(8) a. *On je ovladao pet zemalja.
he is conquered five countries(gen.pl)

b. *On je ovladao pet zemljama.
he is conquered five countries(instr.pl)

The ungrammaticality of (6a) and (8a) is not surprising and can be accounted for on a par with Russian (4b). As for the impossibility of “repairing” these examples in SC (cf. ((6b) and (8b)), note that, in contrast to higher numerals in Russian, higher numerals in SC do not decline—they are frozen forms.7 Bošković (to appear) (see also Franks (1995)) interprets this as indicating that they are Caseless. Since the head of the numeral phrase, the numeral, is Caseless in SC, the verb cannot check its Case against it. A QP as an object of an inherent Case assigning verb in SC then inevitably causes a θ-criterion violation.

2 Case Checking vs Case Assignment

Having discussed the basic properties of GQ, I now turn to a very interesting paradigm involving SC preposition s(a), also discussed in Leko (1986), Franks (1995, 2002), and Wechsler and Zlatić (2003). S(a)7

7The non-GQ marking numeral one, on the other hand, does decline (in fact, SC one behaves like its Russian counterpart in all relevant respects). Below I will disregard numeral one.
is a preposition that assigns instrumental Case -- no other Case but instrumental is possible in (9).\footnote{Whether \textit{s} or \textit{sa} is used in the examples discussed in the squib does not affect their grammaticality status. I will refer to the preposition in question in the text as \textit{sa}.}

(9) s(a) njim
    with him(instr.sing)

Bearing this in mind, consider (10)-(13).

(10) On je ovladao zemljom.
    he is conquered country(instr.sing)
    ‘He conquered that country.’
(11) *On je ovladao s(a) zemljom.
    he is conquered with country(instr.sing)
(12) *On je ovladao pet zemalja.
    he is conquered five countries(gen.pl)
(13) On je ovladao s(a) pet zemalja.
    he is conquered with five countries(gen.pl)
    ‘He conquered five countries.’

Apparently, \textit{sa} can (and must) occur in the complement of \textit{ovladati} ‘to conquer’ only when the complement contains a higher numeral. Recall now that, being an inherent Case assigner, \textit{ovladati} must check its instrumental Case against its object argument. (12) is ruled out because \textit{ovladati} fails to do so. Regarding (11) and (13), I propose that we are dealing here with a last resort \textit{sa}-insertion which takes place so that \textit{ovladati} can check its instrumental Case against its object argument. The complement of \textit{ovladati} in (13) is a PP, with \textit{ovladati} checking its Case against the head of its PP complement, namely \textit{sa} (see also fn. 14 for an important point). Given that \textit{sa}-insertion is a last resort operation, since there is no need for it in (11)
it is not allowed to take place. Alternatively, (11) can be ruled out via Case theory: if ovladati and sa check Case against each other, the object NP cannot be Case-checked. (In other words, the Case feature of one of the relevant elements must remain unchecked.) What we have in (13), then, is a situation where a traditional Case assigner (a verb) checks Case against a traditional Case assigner (a preposition). This state of affairs can be easily accommodated under the Case checking theory, but not under the Case assignment theory. Under the former theory, the relationship between the elements involved in a Case-licensing relation is inherently symmetrical. The distinction between a Case assigner and a Case assignee cannot in fact be stated in natural terms without additional stipulations in this theory. On the other hand, in the Case assignment theory, the relationship in question is inherently asymmetrical, i.e. unidirectional, with one element (Case assigner) essentially transferring its Case property to another element (Case assignee). Obviously, given the inherent asymmetry in the Case assignment process, a Case assigner cannot assign Case to a Case assigner. The problem does not arise in the Case checking theory, where there is no distinction between Case assigners and Case assignees. I conclude, therefore, that the paradigm in (10)-(13) provides an argument for the superiority of the Case checking theory over the Case assignment theory.

I now turn to additional data regarding GQ as well as certain data concerning undeclined nouns which confirm the current analysis by showing that sa-insertion with QPs is part of a broader pattern for resolving Case problems, more precisely, for Case-checking inherent Case verbs.

Consider the following data.9

(14) ?Oni su ovladali Andorom i još pet zemalja.
   they are conquered Andorra(instr) and another five countries(gen.pl)
   ‘They conquered Andorra and another five countries.’

(14) clearly contrasts with (12). Recall that (12) is ruled out because ovladati fails to check its instrumental Case due to the inability of the object QP to bear Case. The object in (14) is a coordinated phrase, where only the second conjunct is a Caseless QP. The first conjunct is an NP bearing instrumental Case, which

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9Sandra Stjepanović (p.c.) suggested checking the coordination patterns in (14), (15), (23) and (24).
is capable of checking the instrumental Case of *ovladati*. Insertion of *sa* in (13) apparently has the same rescuing effect on (12) as the presence of the instrumental-marked NP in (14). Since it seems quite clear that the instrumental NP in (14) Case-checks the verb *ovladati*, it seems natural to conclude that *sa* in (13) performs the same task.

Interestingly, (15) contrasts with (14).

(15) *Oni su ovladali pet zemalja i Andorom.

they are conquered five countries(gen.pl) and Andorra(instr)

One possibility is that the NP *Andorom* is too deeply embedded within the coordination to be accessible for Case-checking by the verb. (For arguments for a hierarchical structure of coordination, see Munn (1993), Kayne (1994), and Johannessen (1998), among others). Note that Bošković (2005b) argues the coordination phrase is a phase, in which case Chomsky’s (2000) Phrase Impenetrability Condition, which says only the head and the Spec of a phase can be accessed from outside of the phase, would prevent the verb from entering into the required relation with *Andorom*.) In this respect, notice example (16), where the second conjunct is clearly not Case-checked by the coordination-external Case-checker Infl.

(16) John and me left

What about examples like (17) then? (Note that the default Case in SC is Nominative, see Bošković 2005a.)

(17) a. John and I left.

b. On je kupio kuću i kola.

he is bought house(acc.sing) and car(acc.sing)

‘He bought a house and a car.’

c. Oni su ovladali Andorom i Luksemburgom.

they are conquered Andorra(instr) and Luxemburg(instr)
We would be dealing here with some kind of Case agreement. I leave its precise formal implementation for another occasion.

The gist of defective intervention in this case is that although QP is itself Caseless, it still prevents the verb from entering into an Agree relation that would result in Case-checking with the second conjunct NP. (i) appears to contradict the last resort nature of *sa*-insertion given the grammaticality of (14).

(i) Oni su ovladali Andorom i sa još pet zemalja.

They conquered Andorra (instr) and with another five countries (gen.pl)

One conclusion that can be drawn given the ungrammaticality of (15) is that the second conjunct in (17) is not directly Case-licensed by the verb/Infl. Rather, it is Case-licensed via the first conjunct. Under this Case-licensing strategy the second conjunct can only get the same Case as the first conjunct. The ungrammaticality of (15) then straightforwardly follows given that QPs (i.e. the first conjunct in (15)) are Caseless.

Alternatively, it is possible the intervening QP in (15) prevents the verb from entering into an Agree relation with the second conjunct NP, which would have resulted in its Case-checking, via Chomsky’s (2000) defective intervention. Regarding (17), under this analysis we may be dealing here with an application of Hiraiwa’s (2001) Multiple Agree, where the outside Case-checker (Infl/verb) undergoes a simultaneous Agree relation with both conjunct NPs. As discussed by Hiraiwa, this kind of simultaneous agreement voids potential intervention effects, so that the first conjunct does not prevent the second conjunct from being Case-licensed by the verb/Infl. One way or another, it seems plausible the contrast in (14)-(15) is another instantiation of well-known first-second conjunct asymmetries, which may be analyzable by appealing to the hierarchical structure of coordination along the lines suggested above, hence it does not affect the point made above regarding (14).

Notice also that (15) can be improved with *sa*-insertion, as expected given the above discussion of *sa*. (18) also confirms that the problem with (15) is that *ovladati* is unable to undergo Case-checking.  

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11 The gist of defective intervention in this case is that although QP is itself Caseless, it still prevents the verb from entering into a Caserelation that would result in Case-checking with the second conjunct NP.

12 (i) appears to contradict the last resort nature of *sa*-insertion given the grammaticality of (14).

(i) Oni su ovladali Andorom i sa još pet zemalja.

They conquered Andorra (instr) and with another five countries (gen.pl)

However, there is another derivation for (i) which refutes this conclusion. Bošković (1997, 2001) shows SC participles may undergo short V-movement. (i) can then involve VP coordination, with the participle undergoing across-the-board movement from each conjunct. On this derivation, *ovladati* takes the QP as its complement in the second conjunct, just like it does in
Data regarding undecorated nouns are also relevant to our current concerns. Some loaned female names that do not end in a do not decline in SC. Thus, while Nada declines, Meri does not—it has only one form.

(19) a. Nada
    Nominative: Nad-a
    Accusative: Nad-u
    Genitive: Nad-e
    Dative/Locative: Nad-i
    Instrumental: Nad-om
    Vocative: Nad-o

Let us assume that undecorated names are actually Caseless. From this perspective, the pattern in (20)-(21), noted by Wechsler and Zlatić (2003), is not surprising.

(20) Uzgaja konja je kupio Meri.
    breeder horses(gen) is bought Meri
    ‘The horse breeder bought Meri.’

(21) *Džokej je ovladao Meri.
    jockey is conquered Meri
    ‘The jockey conquered Meri.’

Like Caseless QPs, undecorated nouns can function as objects of verbs that normally assign accusative Case, but not as objects of verbs that assign instrumental Case. This can be straightforwardly accounted for if
such nouns are Caseless given that only inherent Case-assigning verbs must assign their Case for reasons discussed above.

Significantly, undeclined nouns also pattern with QPs with respect to sa-insertion as well as the coordination test performed above.

(22) Džokej je ovladao s(a) Meri.

jockey is conquered with Meri

‘The jockey conquered Meri.’

(23) ?Džokej je ovladao Kraljicom i Meri.

jockey is conquered Queen(instr.sing) and Meri

‘The jockey conquered Queen and Meri.’

Given the above discussion, the contrast between (21) and (22)/(23) can be straightforwardly accounted for. While in (21) ovladati fails to check its instrumental Case, in (22)/(23) it does not: in (23), Kraljicom checks its instrumental Case and in (22), sa does.

As in the case of QPs, we have a first-second conjunct asymmetry at work here (see (15) for relevant discussion). Thus, (24) contrasts with (23). Furthermore, as with QPs, (24) can be improved with sa-insertion (see (18) for relevant discussion).

(24) *Džokej je ovladao Meri i Kraljicom.

(25) ?Džokej je ovladao s(a) Meri i Kraljicom.

jockey is conquered with Meri and Queen(instr.sing)

There is another way of rescuing (21), noted by Wechsler and Zlatić (2003). The example becomes acceptable if the undeclined noun is modified by an adjective bearing instrumental Case. (Note that possessives are morphologically and syntactically adjectives in SC, see Zlatić (1997) and Bošković (2005a). I will not be making a distinction between the two below.)
We are dealing here with the same type of rescuing effect as the one illustrated in (22)/(23)—the presence of an instrumental-marked adjective makes it possible for the verb to check its instrumental Case. The example in question also bears on the issue of how adjectives are Case-marked. It is often assumed that Case-marked adjectives get their Case through agreement with the noun, which is Case-licensed from outside of the NP. Given the above discussion, (26) provides evidence against this assumption. Since the noun is Caseless, the adjective in (26) cannot get Case through agreement with the noun. Rather, it must be directly Case-checked by the verb.

To summarize the discussion in this section, the data regarding *sa*-insertion in SC provide evidence for the superiority of the Case checking theory over the Case assignment theory. We have also seen an argument that a Case-marked modifying adjective is Case-checked directly by the NP-external Case-checker rather than getting its Case from the noun it modifies. Additionally, we have seen that when two coordinated NPs bear the same Case which they appear to get from an outside Case-checker, either the first NP gets its Case from the outside Case-checker with the second NP being Case-licensed via the first NP, or both NPs are Case-licensed through an application of Multiple Agree.

3 Case of Bare NP Adverbials

Interestingly, Franks (2002) notes that *sa*-insertion cannot occur with instrumental adjuncts.

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13Note that this type of example cannot be constructed with QPs because adjectives can only bear genitive in GQ environments in SC.
‘He ran through a/the forest.’

b. *Trčao je pet šuma.
   run is five forests(gen.pl)
   ‘He ran through five forests.’

c. *Trčao je s(a) pet šuma.

We have evidence here that the instrumental in (27)a is not assigned by a null head. If that were the case, (27)c could be analyzed on a par with (13), with sa inserted to check the instrumental Case of the null head. Rather, I suggest that adjunct NPs are not subject to the Case filter, i.e. they are not Case-checked like argument NPs (see also Babby (1986, 1994)). Instead, the function of the instrumental Case in (27)a, which is not checked/assigned by anything, is to identify the precise semantic role of the adverbial (see Larson (1985) regarding adverbial 0-roles), which sa cannot do. On the other hand, due to its semantics, kroz in (28) can do that.

(28) Trčao je kroz pet šuma.
   run is through five forests(gen.pl)

Under this analysis, the inherent Case of adjuncts is semantically interpretable, hence not subject to the traditional Case filter (see Chomsky (1995) for the proposal that interpretable features do not need to be checked (as long as they are not strong)): its function is to identify the precise semantic role of the adjunct, with different Cases identifying different semantic roles. In this respect, note the paradigm below, where the precise interpretation of the adverbial NP depends on the Case it bears. 

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14 As noted by Franks (2002), the ungrammaticality of (27)c also provides evidence that sa in the constructions under consideration should not be analyzed as a mere realization of instrumental Case, i.e. as an instrumental Case marker.

15 Particularly notorious in this respect is Hungarian, which, for example, has ten Cases for denoting different locational relations. Thus, asztal-on (‘table’ in superessive Case) means ‘on table’, asztal-rol (‘table’ in delative Case) means ‘off table’, etc. (see Babby (1994)).
Note that when *kroz* does assign Case, i.e. when it functions as a regular Case checking preposition (rather than an interpretable Case marker), it assigns accusative. (Other Case forms are not possible in (i.).)

(29) On ide.

    he walks

    ‘He is walking.’

(30) On ide    Ivanu.

    he walks Ivan(dat)

    ‘He is walking toward Ivan.’

(31) On ide    ulicom.

    he walks street(instr.sing)

    ‘He is walking down the street.’

SC prepositions can also perform the task in question. When they function as adjunct semantic role identifiers they are not Case checkers; they are essentially interpretable inherent Case markers.\(^{16}\)

We have seen above that prepositions exhibit varied behavior with respect to Case properties. We can in fact establish three types of prepositions in this respect based on the data discussed in this squib (the typology is not intended to be exhaustive):

- prepositions that take an argument which they Case-check (see examples (9) and (i) in fn. 16)
- prepositions that Case-check traditional Case assigners, i.e. that Case-check a head that c-commands the PP in question (see examples (13), (18), (22) and (25))
- prepositions that function as interpretable Case markers and do not undergo Case-checking (see (28))

What behavior a particular preposition will exhibit with respect to the above typology depends on its semantic (including 0) as well as Case properties. To summarize, I have argued that Genitive of Quantification provides empirical evidence for the

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\(^{16}\)Note that when *kroz* does assign Case, i.e. when it functions as a regular Case checking preposition (rather than an interpretable Case marker), it assigns accusative. (Other Case forms are not possible in (i.).)
superiority of Case checking over Case assignment. I have also proposed that bare NP adverbials are not subject to the traditional Case Filter (i.e. in terms of the checking theory, their Case does not have to be checked) because their Case is interpretable. Prepositions occurring with adverbal NPs can in some contexts perform the task of interpretable Case features. Finally, we have seen some evidence that a Case-marked modifying adjective is Case-checked directly by the NP-external Case-checker (it does not get its Case from the noun it modifies) and that when two coordinated NPs bear the same Case which they appear to get from an outside Case-checker, either the first NP gets its Case from the outside Case-checker with the second NP being Case-licensed via the first NP, or both NPs are Case-licensed through an application of Multiple Agree.

References


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