

Case Licensing and Nominal Adverbials in Slavic*

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1. Introduction

The aim of this paper is to provide a syntactic analysis of bare Accusative and Instrumental adverbials in Slavic languages which shows how *temporal* and *circumstantial (non-temporal)* adverbials are integrated into the clausal structure and how case with bare DP adverbials is licensed in Slavic. In the Russian, Serbo-Croatian, and Czech examples in (1) – (3) the adverbials in question are marked with italics. The adverbials in (1-3a,b) are temporal whereas those in (1-3c) are non-temporal.

- (1) a. Nataša *vsě leto* rabotala na ètom zavode. (Ru)
Nataša whole summer_{ACC} work_{PST} in that factory
'Nataša was working in that factory for the whole summer.'
b. Pëtr *godami* ne videlsja s Tolikom.
Pëtr years_{INSTR} NEG see_{PST:REFL} with Tolik
'Pëtr hasn't seen Tolik for years.'
c. Maša rezala xleb *nožom*.
Maša cut_{PST} bread knife_{INST}
'Maša cut the bread with a knife.'
- (SC)
- (2) a. Nataša je *čitavu jesen* radila u onoj tvornici.
Nataša AUX_{3:sg} whole autumn_{ACC} work_{fem} in that factory
'Nataša was working in that factory for the whole autumn.'

* This paper is a reconsidered version of my presentations at FASL10 in Ann Arbor, at the ZAS in Berlin, and at the SUNY at Stony Brook. I am especially grateful to John Bailyn, Barbara Citko, Ljudmila Geist, Manfred Krifka, Richard Larson, Chris Wilder, and Misha Yadroff as well as to the audience at the FASL10 conference, at the ZAS, and at the SUNY for discussions and comments. Of course, all remaining errors are my own. I am also indebted to all my informants for their native speaker intuitions.

- b. Petar je *mjesecima* tražio onu knjigu.
 Petar AUX_{3:sg} month_{INSTR:PL} look-for_{masc} that book
 'Petar was looking for that book for months.'
- c. Mirko *olovkom* piše pismo.
 Mirko pencil_{INSTR} write_{3:sg:PRS} letter
 'Mirko writes a/the letter with a/the pencil.'

- (3) a. *Celou cestu* jsme si povidali.¹ (Cz)
 whole way_{ACC} AUX_{1:pl} CL-REFL_{DAT} talk
 'All the way we talked to each other.'
- b. Petr *celé měsíce* hledal onu knihu
 Petr whole month_{ACC:PL} look-for_{masc} that book
 'Petr was looking for that book for months.'
- c. Alžběta ukazuje *prstem* na Jana.
 Alžběta point_{3:sg:PRS} finger_{INST} at Jan
 'Alžběta points at Jan with the finger.'

One difference between Russian and Serbo-Croatian on one hand and Czech on the other hand is immediately evident: In Russian and Serbo-Croatian, unbounded² duratives are marked with Instrumental (1,2b), whereas in Czech, these adverbials are marked with Accusative (3b).

I assume that the complex internal structure of superficially bare DP-adverbials in combination with differing adjunction sites accounts for the case marking of nominal adverbials. I take the

¹ I take locational measure adverbials as *celou cestu* 'all the way' in (3a) and the Russian equivalent *vsju dorogu*, and distance measures as Russian *dva kilometra* 'two kilometers' or Serbo-Croatian *petsto metara* '500 meters' as temporal adverbials. Like "real" temporal duratives these adverbials are extensive measure functions, i.e. they cut out a certain time interval for which a positive truth value for a given situation is asserted (cf. Krifka 1989, 1998, Pereltsvaig 2000, Szucsich 2001, 2002).

² *Unbounded* expressions have *cumulative* referents without interpretable boundaries. They have the property that the sum of two objects which fall under one expression falls under exactly the same expression as its parts (e.g. the sum of two objects denoted by the DP *voda* 'water' is again expressed by the DP *voda*). This property also holds for plural terms expressed by determinerless plural DPs in English or German. *Bounded* nouns (or traditionally: count nouns) like singular non-mass DPs or definite plural DPs lack this property (for details cf. Krifka 1989, 1998, Szucsich 2002).

Instrumental to be a predicative case which is licensed by a covert category *c*-commanding the DP. Depending on the syntactic target the empty category may allow for case agreement. If the syntactic host of the adverbial contains structural case features (AspP), agreement is possible (i.e., the covert category allows for 'case transmission'). This applies to temporal adverbials, but not to VP/*v*P-adverbials, which uniformly exhibit the Instrumental in (most) Slavic languages. In Russian and Serbo-Croatian however, the temporal adverbial itself has to contain a positive boundedness feature [+B] to allow for agreement.

Before I proceed, some prerequisites of the analysis have to be mentioned. I assume that the functional category Asp hosts structural case features – in Slavic languages Accusative case (for similar assumptions cf. Borer 1994, Brown 1999, Pereltsvaig 2000). Structural case features of internal arguments of transitive verbs are checked by Asp, whereas Nominative is checked by T, cf. (4). With intransitive verbs the structural Accusative case feature is inactive, i.e., it does not require to be checked. But, crucially, this feature is present and allows for agreement (cf. section 2).

$$(4) \quad [_{CP} C^0 [_{TP} \quad T^0 \quad [_{AspP} \quad Asp^0 \quad [_{vP/VP} \dots (v^0) V^0 \dots]]]] \\ \quad \quad \quad [\pm pst]/[NOM] \quad \quad \quad [\pm pf]/[ACC]$$

This analysis also accounts for the well known fact that the interpretation of some internal arguments of transitive and unaccusative verbs (*incremental themes*) may effect the aspectual interpretation of sentences in languages without aspectual morphology (cf. the Finnish example in (5)), and vice versa that aspectual features effect the interpretation of internal arguments in languages with aspectual morphology (cf. the Russian example in (6)).³

³ Temporal adverbials are good diagnostics for aspectual interpretations of sentences. Duratives (En. *for one hour*, Ru. *odin čas*, Fi. *yhden tunnin*) are compatible only with unbounded events. Time-span adverbials (En. *in an hour*, Ru. *za čas*, Fi. *yhdessä tunnissa*) are restricted to bounded events, though the ungrammaticality of time-span adverbials in combination with imperfective verbs in Russian (cf. (6b)) holds only for non-habitual readings (for details and a discussion of problematic cases cf. Szucsich 2002).

- (Fi)
- (5) a. Mari kirjoitti kirjeet yhdessä tunnissa / *yhden tunnin.
 Mari wrote letters_{ACC} one hour_{INESS} / one hour_{ACC}
 'Mari wrote the letters in an hour / *for an hour.'
- b. Mari kirjoitti kirjeitä *yhdessä tunnissa / yhden tunnin.
 Mari wrote letters_{PART} one hour_{INESS} / one hour_{ACC}
 'Mari was writing letters *in an hour / for an hour.'
- (Ru)
- (6) a. Maša napisala pis'ma za čas / *celyj čas.
 Maša wrote_{PF} letters_{ACC} in hour / whole hour
 'Maša wrote the letters in an hour / for an hour.'
- b. Maša pisala pis'ma *za čas / celyj čas.
 Maša wrote_{IMP} letters_{ACC} in hour / whole hour
 'Maša was writing letters in an hour / for an hour.'

In Finnish, bounded ([+B]) DPs are marked with Accusative case (or Nominative) and unbounded ([-B]) DPs with Partitive case. Bounded internal arguments yield a bounded (perfective) interpretation of the sentence, and unbounded internal arguments yield an unbounded (imperfective) interpretation equivalent to the interpretation of Russian sentences with differing aspectual markings.⁴ In Slavic languages, the aspectual feature restricts the interpretation of internal arguments if the latter are incremental themes.

2. Accusative Adverbials in Russian as Bounded Aspectual Modifiers

All Russian bare Accusative adverbials modify the event time (E) which I take to be part of the aspectual feature interpretation, cf.

⁴ In Russian, the feature [+pf] produces an interpretation which implies a change of a situation s_1 to a resulting situation s_2 , i.e. there is an interpretable boundary between s_1 and s_2 (which does not imply that s_2 necessarily holds at *speech time*). On the other hand, the feature [-pf] yields an interpretation which does *not* imply a change of a situation to a resulting situation, though this change may be pragmatically predictable (for details cf. Szucsich 2002). In Reichenbachian terms, [+pf] corresponds to an event where event time (E) and reference time (R) are disjoint (E_R/R_E). [-pf] corresponds to an inclusion of R in E (R ⊆ E).

footnote 4 (for a detailed discussion cf. Szucsich 2002). Accusative adverbials delimit, quantize or localize the event time.

Duratives and *frequentatives* plainly reveal the relation between aspectual information and Accusative adverbials. Both are aspectually sensitive, i.e. they occur only with imperfective (unbounded) events, cf. (7) for a durative⁵ and (8) for a frequentative.

(7) Ivan el / *s"el sup odin čas. (Ru)
 Ivan ate_{IMP / *PF} soup one hour_{ACC}
 'Ivan was eating the soup for one hour.'

(8) Ona každyj god pokazyvala / *pokazala ego vračam.
 She every year_{ACC} showed_{IMP / *PF} him physicians
 'Every year she had him examined by physicians.'

Multiplicatives and *temporal positional adverbials* modify bounded and unbounded events, cf. (9), (10) respectively, though (9b) is somewhat marginal and denotes three repetitions ('occasions', cf. Mourelatos 1978) of an unbounded event. Nonetheless both adverbials modify the event time either by determining quantificational properties of E or by localizing E within a particular time interval.

(9) a. *Tri raza* udarili v kolokol, i zanes podnjalsja. (Ru)
 Three times_{ACC} struck_{PF} in bell and curtain rose_{REFL}
 'Three times they rang the bell, and the curtain rose.'
 b. *Tri raza* rugalsja.
 Three times_{ACC} swore_{IMP}
 'I have sworn (cursed) three times.'

⁵ Unfortunately, there is no space to discuss the case of *po-* and *pro-*perfectives (*delimitatives* and *perduratives*) which seem to allow for modification with duratives (temporal measure expressions). There are two ways to account for those cases: (i) to treat them as (semantically explainable) exceptions for a well defined subclass of perfective verbs including unspecified time intervals in their lexical semantics (cf. Steube 1997), or (ii) to analyze duratives as arguments or quasi-arguments of those verbs (cf. Szucsich 2002 for a detailed discussion).

- (10) Tat'jana Sergeevna *prošlyj god* poxoronila muža.
 Tat'jana Sergeevna last year_{ACC} buried_{PF} husband
 'Last year, Tat'jana Sergeevna buried her husband.'

The common property of Accusative adverbials in Russian is that they are all bounded terms. Accusative duratives are countable and multiplicatives are themselves numerative constructions, i.e. the nominal head *raz* 'time' in (9) is also countable which is a property of bounded expressions. Furthermore, frequentatives always occur with the distributive universal quantifier *každ-* 'each' which modifies only bounded nouns. It is incompatible with unbounded (mass) nouns. On the other side, *v#s-* 'all' has a cumulative reading, hence it is the only possible universal quantifier for unbounded nouns, cf. the contrast in (11).

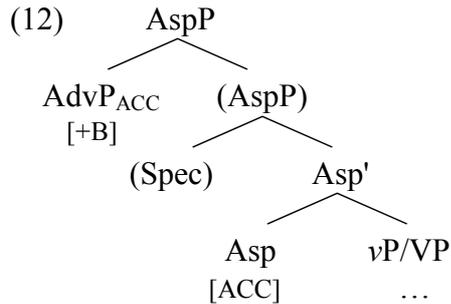
- (11) a. vsě zoloto (mira) b. *každoe zoloto (mira) (Ru)
 all gold (world_{GEN}) each gold (world_{GEN})
 'all the gold (of the world)' *'each gold (of the world)'

Temporal positional adverbials always occur as singular DPs denoting a specific time interval. This shows that they too are bounded expressions.

Accusative adverbials are closely related to temporal information which is encoded in Asp, viz. the time interval E. Therefore, I propose that Accusative adverbials base-adjoin to AspP⁶, which

⁶ Contrary to substitution, adjunction is not driven by the need to satisfy feature requirements of the syntactic target. It is rather the adjunct which "picks out" the appropriate target. The target constituent either constitutes the appropriate domain for a scope sensitive adverbial (e.g. a sentential adverbial) or contains semantically relevant features which match the adjunct's requirements determined by its lexical semantics (e.g. a temporal adverbial denotes a time interval or, in case of frequentatives or multiplicatives, successive time intervals, hence it cannot modify the referential argument of the verb, but only a temporal argument which is introduced by the functional category Asp; cf. also Maienborn, 1998). As duratives and frequentatives show, adjuncts may even require a particular featural specification of its target. They are compatible only with a [-pf] feature of Asp. Crucially, all interpretable features of both the adjunct and the target constituent survive till LF. Hence, limitation of an event by a [+B] durative like in (7) doesn't change the aspectual value of the whole sentence (for details cf. Szucsich 2001, 2002).

establishes its syntactically local relation to Asp containing the Accusative case feature, cf. (12).



In a wide variety of languages belonging to different families, this syntactically local relation triggers morphological agreement of temporal adverbials and their target constituent AspP, i.e. the case marking of bare Accusative adverbials is licensed "from outside". In Russian, case agreement of the adverbial adjunct is possible due to this local relation to the case features in Asp and the presence of a positively marked feature of the adjunct, viz. [+B]. Consequently, the case features of Accusative adverbials are structural, since Asp (hosting active or inactive Accusative features) is their source.

This account is supported by the fact that in Russian Accusative adverbials exhibit Genitive of negation (13) under virtually the same conditions as direct objects (14) (cf. also Borovikoff, 1997).

- (13)a. Maša rabotala celyj čas. (Ru)
 Maša worked whole hour_{ACC}
 'Maša was working for one hour.'
- b. Maša ne rabotala i čas / časa.
 Maša NEG spazierten even hour_{ACC/GEN}
 'Maša didn't work even for an hour.'
- c. *Maša rabotala i časa.
 Maša worked even hour_{GEN}
 'Maša was working even for one hour.'

- (14)a. Pětr čital ètu knigu.
 Pětr read this book_{ACC}
 'Pětr read this book.'
- b. Pětr ne čital ètu knigu / ètoj knigi.
 Pětr NEG read this book_{ACC/GEN}
 'Pětr didn't read this book.'
- c. *Pětr čital ètoj knigi.
 Pětr read this book_{GEN}
 'Pětr read this book.'

Another evidence for the structural nature of the adverbial Accusative comes from Korean. In Korean, certain verb classes (apparently those lacking an agentive external argument) exhibit so-called double Nominative, i.e. both the subject and the direct object are marked with Nominative. In these cases the temporal adverbial also bears Nominative, cf. (15). As (16) shows, with "well behaved" transitive verbs these adverbials are marked with Accusative (cf. Wechsler/Lee 1996 for a discussion of the Korean data).

- (15)ku-ka cha-ka sey sikan-i philyoha-ta. (Ko)
 he_{NOM} car_{NOM} three three hour_{NOM} need_{DEC}
 'He needs a car for three hours.'

- (16)a. Tom-i twu sikan-tongan-ul tali-ess-ta.
 Tom_{NOM} two hours-period_{ACC} run_{PST-DEC}
 'Tom ran for two hours'
- b. Tom-i mikwuk-lul twu pen -ul pangmwun-hay-ss-ta.
 Tom_{NOM} America_{ACC} two times_{ACC} visit-do_{PST-DEC}
 'Tom visited America two times'
- (Wechsler/Lee 1996, 631/636)

Obviously, agreement in case features between an adverbial adjunct and AspP is not equivalent to a checking operation. Adjuncts do not check any feature of their syntactic target, although the adjunct may require the presence of a particular feature of its target (cf. footnote 6). A temporal Accusative adverbial checking the structural case

- (17)a. Pětr časami sidel molča. (Ru)
 Pětr hour_{INST:PL} sat being-silent
 'Pětr has been sitting (there) for hours without saying a word.'
- b. *Pětr časom sidel molča.
 Pětr hour_{INST:SG} sat being-silent
 *'Pětr has been sitting (there) for hour without saying a word.'
- (18)*Pětr dvumja časami sidel molča.
 Pětr two hour_{INST:PL} sat being-silent
 *'Pětr has been sitting (there) for two hours and hours without saying a word.'

Nonetheless Instrumental duratives modify the time course of the event, although they do not delimit the event time. Due to this fact I assume that they adjoin to AspP, i.e. the target constituent for the adjunction is the same as for Accusative adverbials. In Russian, different case marking with temporal nominal adverbials corresponds to different feature values concerning referential properties of the respective adverbials: bounded = Accusative vs. unbounded = Instrumental. Similar to subject-verb agreement in Russian, it is a feature of the potentially agreeing element which determines agreement.

In other languages, the local relation to Asp alone is sufficient for agreement. E.g. in Czech, the local relation to Asp always licenses agreement, and unbounded duratives also appear with Accusative, whereas Serbo-Croatian patterns with Russian, cf. (19) and (20) (for glossings and translation cf. (3b) and (2b) in section 1).

(19) Petr *celé měsíce*_{ACC} hledal onu knihu. (Cz)

(20) Petar je *mjesecima*_{INST} tražio onu knjigu. (SC)

The Czech sentence in (19) supports the assumption that the target for the adjunction of bounded and unbounded temporal adverbials is indeed the same, viz. AspP as the host of structural case features.

3.2. Non-Temporal Instrumental Adverbials

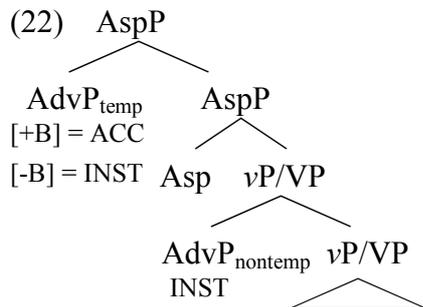
Instrumental adverbials as a whole are not restricted to a specific adjunct position. They also diverge to a great degree with respect to the semantic role they bear, cf. the Russian examples in (21).

- (21) a. On vyl volkom. c. On kivnul golovoj. (Ru)
 he howled wolf_{INST} he nodded head_{INST}
 'He howled like a wolf.' 'He nodded his head.'
- b. On rezal xleb nožom. d. On plakal gor'kimi slezami.
 he cut bread knife_{INST} he cried bitter tears_{INST}
 'He cut the bread with a knife.' 'He cried bitter tears.'

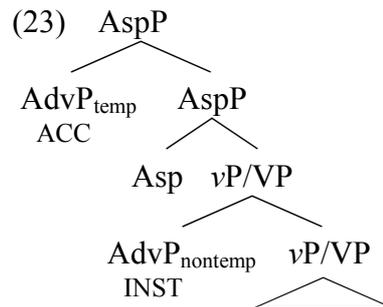
Non-temporal Instrumental adverbials modify the event itself, i.e. the so-called referential or event argument of the verb which is *not* introduced by a verbal functional category (T or Asp) but by the lexical verb. By this these adverbials enrich the event structure with "argument-like" participants or specify the event like "real" manner adverbials. They introduce an additional predicate. I therefore assume that they adjoin to or within the VP or vP, i.e. it is again the adjunct which picks out the target constituent (in this case hosting the referential argument which has to be modified).

The structures in (22) and (23) represent the two different case marking types for bare nominal adverbials in Slavic.

Russian/Serbo-Croatian:



Czech:



4. Agreement Case vs. Predicative Case

It is impossible to account for the case marking facts in Slavic by simply positing different targets for Accusative and Instrumental adverbials.⁸ This would ignore the apparent case alternation with duratives in Russian or Serbo-Croatian (in contrast to the situation in Czech). I assume an empty category with the adverbial DP as its complement which licenses the Instrumental of the latter, cf. (24) (in the sections 5 and 6 I will provide evidence for this assumption).

$$(24) [_{P(r)P} P(r) [_{DP \dots}]_{INST}] = AdvP_{INST}$$

The label of the empty category does not matter. It is important that it instantiates a predicative relation. Following Bowers (1993) one could label it Pr(edicational head) or simply analyze it as a P (therefore the *r* in (24) is bracketed) constituting a nominal functional layer PP or PrP. P(*r*) is semantically underspecified allowing for the above-mentioned different semantic roles of VP/*v*P-adverbials, i.e. it just introduces an additional object relating it to the event. In the case of Instrumental duratives in Russian and Serbo-Croatian, the interpretation of the adverbial in relation to that of the sentence (the adverbial's semantic role) is restricted by the lexical meaning of the adverbial as an unbounded time interval.

The phrase headed by P(*r*) (and c-commanding the adverbial DP) adjoins to lexical or functional projections of the verb instantiating the predicative relation between Instrumental adverbials and the target constituents of the adjunction like in the structure in (25) (with XP either VP/*v*P or AspP).

$$(25) [_{YP} Y^0 [_{XP} [_{P(r)P} P(r) [_{DP \dots}]_{INST}] [_{XP} X^0 ZP]]]]$$

⁸ Franks (1995) tries to strictly reduce case assignment to configuration ("accusative is assigned purely under the configuration >sister to V<", [Franks 1995, 33]; "assign instrumental to sisters of VP", [Franks 1995, 39]. In the light of the presented data these rules do not work out.

Instrumental case is analyzed as a *default*-case for predicative DPs. This approach allows for a unified analysis of Slavic Instrumentals, in cases of 'primary' predication with the copula (26a), with agreement small clauses (26b), and with so-called 'secondary' predication (26c). Instrumental adverbials are a special instance of secondary predicates to the effect that they do not have an external argument which is coindexed with an argument of the verb as in (26c) (in the case of an adjunct small clause) or which is raised to the matrix sentence as in (26b) (in the case of an argument small clause).

- (26) a. Ivan byl učitelem. (Ru)
 Ivan was teacher_{INST}
 'Ivan was a teacher.'
- b. Ivan sčítaet Petra_i t_i glupym.
 Ivan considers Pětr_i t_i stupid_{INST}
 'Ivan considers Pětr stupid.'
- c. Ivan_i vstretil svoego druga_j PRO_{i/j} p'janym.
 Ivan_i met his friend_j PRO_{i/j} drunk_{INST}
 'Ivan met his friend drunk.'

This analysis has to be carried over to *all* temporal adverbials adjoining to AspP. To account for the presented parametrization of case marking with duratives in Slavic, we have to assume the same internal structure as in (24) for Accusative adverbials, too, viz. that in (27) by analyzing the corresponding empty category c-commanding the adverbial DP as a case 'transmitter' which under parametrized conditions allows for agreement with structural case features of the syntactic target (AspP).

$$(27) [_{P(r)P} P(r) [_{DP \dots}]_{ACC}] = AdvP_{ACC}$$

Consequently, in cases of agreement, P(r) does not license the case marking of its complement by itself, but allows for licensing 'from outside' transmitting case features of the syntactic target. In predicative configurations the alternation between agreement case and predicative case is a widespread phenomenon in Slavic.

In Russian, copula-verbs as instances of P(r)⁹ also allow for agreement even when lexically filled, cf. (28).

- (28) Sergej K byl eë rodnoj otec / eë rodnym otcom (Ru)
 Sergej K COP_{PST} her natural father_{NOM / INST}
 'Sergej K was her natural father.' (Geist, 1999: 8)

The same is true for secondary predication (adjunct small clauses). Secondary predicates under certain conditions¹⁰ also agree with coindexed DPs, cf. (29) in contrast to (26c). Agreement is possible because of the case transmission via PRO which is the external argument of the small clause.

- (29) Ivan_i vstretil svoego druga_j PRO_{*i/j} p'janogo. (Ru)
 Ivan_i met [his friend_{ACC}]_j PRO_{*i/j} drunk_{ACC}
 'Ivan met his friend drunk.'

Thus, in Slavic languages in various predicative constructions Instrumental case may alter with 'agreement-case' (the latter is often possible only under additional conditions).

To sum up so far, there seem to be two conditions for predicative constructions to allow for agreement (or metaphorically 'case transmission') overriding predicative Instrumental: (i) case agreement is licensed by an overt subject as in copula constructions, or by an empty subject coindexed with a matrix-DP as in secondary predicates; (ii) the predicative construction adjoins to a syntactic target containing structural case features.

None of these conditions for case agreement is fulfilled for VP/vP-adverbials. Adverbials lack an external argument and the VP or vP

⁹ Copula constructions most likely involve a more complex structure than (24), (27). There is no room to discuss this in detail (for a recent analysis of Russian copulas cf. Geist 1999).

¹⁰ E.g. it is a well-known fact in Russian that with secondary predicates in embedded infinitival clauses only a subject controlled PRO licenses agreement case, cf. (i).

- (i) ja poprosil Ivana_i [PRO_i ne prixodit' *p'janogo / p'janym_i. (Ru)
 I asked Ivan_{ACC} NEG to-come drunk_{*ACC / INST}
 'I asked Ivan not to come drunk.' (Franks 1995, 222)

- (33) Književnost mu je bila samo sredstvom. (SC)
 literature CL_{DAT} AUX_{3:sg} COP_{PST} only means_{INST}
 'Literature was only a means to an end for him.'
- (34) a. Petar je držao Jovana lijenčinom.
 Petar AUX_{3:sg} consider_{PST} Jovan layabout_{INST}
 'Petar considered Jovan a layabout.'
 b. Hoću vas vidjeti sretnima.
 Want_{1:sg} you see happy_{INST}
 'I want to see you happy.'
- (35) Paweł jest nauczycielem. (Po)
 Paweł COP_{PRS} teacher_{INST}
 'Paweł is a teacher.'
- (36) Autor je profesorem jazykovědy. (Cz)
 author COP_{PRS} professor_{INST} linguistics_{GEN}
 'The author is a professor of linguistics.'
- (37) Můj strýko je / bol členom JRD. (Sk)
 my uncle COP_{PRS/PST} member_{INST} JRD
 'My uncle is / was member of a JRD (farmer's co-operative).'

The data from Slavic languages are corroborated by the situation in Lithuanian (Szucsich 2002), Old Latvian and other Baltic languages (Moser 1994), and Indo-Iranian languages (e.g. Sanskrit and Old Indic, cf. Moser 1994, Balles 2001) where bare Instrumental adverbials *and* predicative Instrumentals are observed. These data suggest a strong correlation between both instances of the Instrumental.

6. Lack of the Predicative Instrumental

The present analysis implies a third prediction: If there are Slavic languages which do not exhibit the predicative Instrumental, it has to be expected that these languages, in contrast to those presented in the previous section, do not allow for bare Instrumental adverbials.

Indeed, there are Slavic languages and dialects where in predicative contexts the (bare) Instrumental is ungrammatical, viz. Upper Sorbian (38), Burgenland-Croatian (Cakavian) dialects (spoken in Austria, Hungary and Slovakia) (39) and Slovene (40), (41) and (42). The predicate noun (or adjective) bears either agreement case or its case is licensed by a P (*za*).

(38) Michał je *přecelom / přecel.¹² (US)
 Michał COP_{PRS} friend*_{INST / NOM}
 'Michał is a friend.'

(BCr)

(39) Književnost mu je bila nek *sredstvom / sredstvo.
 literature CL_{DAT} AUX_{3:sg} COP_{PST} only means*_{INST / NOM}
 'Literature was only a means to an end for him.'

(Sv)

(40) Književnost mu je bila samo *sredstvom / sredstvo.
 literature CL_{DAT} AUX_{3:sg} COP_{PST} only means*_{INST / NOM}
 'Literature was only a means to an end for him.'

(41) Hočem vas videti *srečnimi / srečne.
 Want_{1:sg} you see happy*_{INST / ACC}
 'I want to see you happy.'

¹² In Upper Sorbian, there is an interesting alternative to agreement case with copulas. The predicate DP may also appear as a PP with *z*+INST, cf. (i). The PP option (with different prepositions) for the predicate element is found in many languages, e.g. Slovene (ii) and Scottish Gaelic (iii)

(i) Michał je z přecelom. (US)
 Michał COP_{PRS} [PP *z* Freund_{INST}]
 'Michał is a friend.'

(ii) Mateja je bila za učiteljico. (Sv)
 Mateja AUX_{PRS:3:sg} COP_{fem} [PP for teacher_{ACC}]
 'Mateja was a teacher.'

(iii) Tha mi 'nam oileanach (S-Gae)
 COP_{PRS} I [PP in-my student]
 'I am a student.'

(Gillies, 1993: 210)

- (42) Peter je smatral Janeza *lenobo / za lenobo.
 Peter AUX_{3:sg} consider_{PST} Janez layabout*_{INST / za+ACC}
 'Peter considered Janez a layabout.'

Following the reasoning of the present proposal, Instrumental VP/vP-adverbials without prepositions should be ruled out. This prediction is borne out for the respective languages, cf. the examples in (43), (44) and (45).

- (43) a. Móžeš *(z) áhom pućować. (US)
 May_{PRS:2:sg} z train_{INST} travel
 'You may travel by train.'
 b. Mikławš bije Jana *(z) pjasću.
 Mikławš hit_{PRS:3:sg} Jan z fist_{INST}
 'Mikławš hits Jan with his fist.'
- (44) a. Jive putuje *(z) autom. (BCr)
 Jive travel_{PRS:3:sg} z car_{INST}
 'Jive travels by car.'
 b. Nikola tuče Luku *(z) pešćicu.
 Nikola hit_{PRS:3:sg} Luka z fist_{INST}
 'Nikola hits Luka with his fist.'
- (45) a. Přišel sem *(s) avtom. (Sv)
 Come_{PST} AUX_{1:sg} s car
 'I came by car.'
 b. Peter piše *(s) svinčnikom.
 Peter write_{PRS:3:sg} s pencil
 'Peter writes with a pencil.'

These data are additional evidence for the analysis developed in the sections 2-4. In Sorbian, Burgenland-Croatian and Slovene, an empty P(r) or a copula do not license Instrumental case. One possible solution for a predicate DP to get its morphological case licensed is via agreement, which is the case in copula constructions (except of the Upper Sorbian and Slovene examples in footnote 12)

and in some instances of small clauses. The second solution is to insert lexical material (prepositions) in P(r) which license the DP's case. This is the only possible solution for VP/vP-adverbials.

Consequently, for unbounded duratives in these languages the only possible realization as bare nominal adverbials is to allow for agreement with Asp, i.e. to pattern with Czech. This is shown in (46a) for Slovene where boundedness of the AspP-adverbial does not play any role for its case marking (compare (46b) for a bounded durative).

- (46) a. Peter je mesece iskal tisto knjigo. (Sv)
 Peter AUX_{3:sg} month_{ACC:PL} look-for that book
 'Peter was looking for that book for months.'
- b. Peter je celo leto iskal tisto knjigo.
 Peter AUX_{3:sg} whole year_{ACC} look-for that book
 'Peter was looking for that book for one year.'

7. Conclusion

Slavic data (along with data from other languages) show that the occurrence of Instrumental adverbials is highly correlated to that of Instrumental predicate DPs (and APs). Furthermore, in Slavic bare Accusative case is restricted to temporal adverbials modifying aspectual information (event time), thus adjoining to AspP. To capture these data, I analyze nominal adverbials as P(r)Ps proposing that there are two possible licensing mechanisms for predicate DPs:

- (i) **agreement** (in a syntactically local relation or by 'transmission' via an external argument of the adjoined or complement P(r)P)
- (ii) **default-predicative case** (which is Instrumental in most Slavic languages).

If the latter is not available, agreement or the insertion of a preposition is the only possibility for the licensing of the predicate DP's morphological case. In Slavic languages without *default-predicative case*, VP/vP-adverbials have to occur with prepositions since agreement is excluded. In those Slavic languages which allow for the bare Instrumental in copula constructions and small clauses,

VP/vP-adverbials bear the predicative Instrumental. Temporal adverbials may agree with its syntactic target AspP which hosts the structural Accusative. As data from Russian or Serbo-Croatian show, features of the adverbial adjunct may block agreement. In these cases, the adverbial again bears the predicative Instrumental.

References

- Bailyn, J. (1995) *A Configurational Approach To Russian "Free" Word Order*. Ph.D. Dissertation: Cornell University/Ithaca.
- Bailyn, J. (2000): *Overt Predicators*. Stony Brook: unpublished ms.
- Bailyn, J. & B. Citko (1999) Case and Agreement in Slavic Predicates. In: K. Dziwirek et al. (eds.) *Formal Approaches to Slavic Linguistics 7*, Ann Arbor, 17-37.
- Balles, I. (2001) *On nonverbal predication in Indoeuropean*. Jena: unpublished ms. [talk given at the workshop "Morphology in Comparison" (April 5-6, 2001, TU Berlin)].
- Borer, H. (1994) The Projection of Arguments. In: E. Benedicto & J. Runner (eds.) *Functional Projections. UMOP 17*, Amherst (MA): GLSA, 19-47.
- Borovikoff, N. (1997) Negated Adjunct Prases are REALLY the Genitive of Negation. In: M. Lindseth & S. Franks (eds.) *Formal Approaches to Slavic Linguistics 5*, Ann Arbor, 67-85.
- Bowers, J. (1993) The Syntax of Predication. In: *Linguistic Inquiry*, 24, 591-657.
- Brown, S. (1999) *The Syntax of Negation in Russian: A Minimalist Approach*. Stanford: CSLI Publications.
- Franks, S. (1995) *Parameters of Slavic Morphosyntax*. New York – Oxford.
- Geist, L. (1999) Russisch *byt'* ('sein') als funktionale und / oder lexikalische Kategorie. In: E. Lang et al. (eds.) *ZAS Papers in Linguistics*, 14, 1-39.
- Gillies, W. (1993) Scottish Gaelic. In: M. Ball & J. Fife (eds.) *The Celtic Languages*, London, 145-227.

- Krifka, M. (1989) *Nominalreferenz und Zeitkonstitution. Zur Semantik von Massentermen, Individualtermen, Aspektklassen.* München.
- Krifka, M. (1998) The Origins of Telicity. In: S. Rothstein (ed.) *Events and Grammar*, London, 197-235.
- Maienborn, C. (1998) *The Grammar and Pragmatics of Locative Modifiers*. Berlin: unpublished ms.
- Moser, M. (1994) *Der prädikative Instrumental. Aus der historischen Syntax des Nordostslavischen. Von den Anfängen bis zur petrinischen Epoche.* Frankfurt/Main.
- Mourelatos, A. (1978) Events, Processes, and States. In: *Linguistics and Philosophy*, 2, 415-434.
- Pereltsvaig, A. (2000) On Accusative Adverbials in Russian and Finnish. In: *The Proceedings of the 15th Annual Conference of the IATL*, Jerusalem, 165-190.
- Steube, A. (1997) Der russische Aspekt und die Ereignisrolle des Verbs. In: U. Junghanns & G. Zybatow (eds.) *Formale Slavistik*. Frankfurt/Main, 213-227.
- Szucsich, L. (2001) Adjunct Positions of Nominal Adverbials in Russian. In: G. Zybatow et al. (eds.) *Current Issues in Formal Slavic Linguistics*, Frankfurt/Main, 106-116.
- Szucsich, L. (2002) *Nominale Adverbiale im Russischen. Syntax, Semantik und Informationsstruktur.* München.
- Wechsler, S. & Y.-Sh. Lee (1996) The Domain of Direct Case Assignment. In: *Natural Language and Linguistic Theory*, 14/3, 629-664.

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