# CASE ASSIGNMENT by Peter Kosta and Anton Zimmerling\*

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## 7. Summary.

### 1. Some reflections on Case Theories (state of the art).

#### Definition

Case (C.) is a nominal grammatical category usually corresponding to a relation between a noun and another sentence expression (assigning that noun a case; e.g. Noun to Noun = Genitive in NP: Cz Kniha Chomského 'The Book of Chomsky' or Dative R pamjatnik Puškinu 'a monument to Pushkin'; V to NP in: Petr políbil Eriku 'Petr kissed Erika' (Cz) in which the Verb assigns the Case Accusative to the direct object/complement of the verb; preposition and verb with the feature +direction, -location = Accusative, cf. Petr jel s Erikou na hrad 'Petr and Erika went to the castle' (Cz); preposition and verb —direction, + location = Locative: Petr a Erika byli na hradě 'Petr and Erika were at the castle' (Cz)); surface morphological C. is to be distinguished from its function, the Deep-structural Case<sup>†</sup> (cf. Fillmore 1968, 1977). Morphological C. has different means of expression in agglutinative languages (Skalička 2004/2006). In inflectional languages, C. is expressed in morphology in declension classes and is accumulated along with the grammatical feature of the number, gender, sometimes animacy and declension class, while in agglutinative languages such as Turkish, Kazakh or Finnish, the individual Cases are each expressed by a particular morph, as seen in Table 1.

Table 1. Survey of Cases in Turkish (singular forms).

Case	After a Consonant	After a Vowel	After a Vowel (Possessive)	Meaning
Nominative	ev#	balta#	-	house, axe
Genitive	ev-in	balta-nin	-nin	
Dative	ev-e	balta-ye	-ne	
Accusative	ev-i	balta-yi	-ni	
Locative	ev-de	balta-de	-nde	
Ablative	ev-den	balta-den	-nden	

The means of expression of the C. in inflectional Indo-European languages are predominantly morphological Cases, i.e. form-creating suffixes with or without prepositions (in the latter case we speak about prepositional C., as in Russian in which the Location is expressed as *predložnyj padež*, cf. Modern Russian *v Kieve* but in Old Russian *Kievě* 'in Kiev' without a preposition, so-called prepositionless local or plain prepositional Case: in Old Russian Chronicles like in the

<sup>†</sup> In this chapter, we capitalize the term Case in the contexts where it is used as part of a formal Case model.

Laurentius or Hypatian Chronical, there are many Cases without prepositions which today are ungrammatical in Modern Russian without prepositions).

Some languages have a system of rich morphological Cases. According to possible classification, the following morphological Cases can be mentioned: Latin, Polish, and Czech have 7 Cases; Estonian has 14, Finnish 15, and Hungarian 18 Cases; Tocharian, an old Indo-European language of East-Turkestan had in both major dialects a total of 11 cases. Others have a rather impoverished Case paradigm. Some of these we term *analytic inflectional languages*, such as e.g. English, Bulgarian and Macedonian; others that consist exclusively of stems are known as *isolating languages* e.g. Mandarin or Vietnamese, as opposed to e.g. Japanese, in which special postponed particles mark the Case, e.g. Nom =ga, Gen =no, Dat =ni and Acc =o):

# (1) Jap. 日本語の先生が生徒に日本語を教えました

Nihongo no sensei ga seito ni nihongo o oshiemashita Japanese Gen teacher Nom student Dative Japanese Acc teach-Past

Daghestanian languages like Tabasaran (Lezgic) reportedly have up to 50-60 cases, the majority of which are expressed by locative or orientation affixes. However, there is no case concord, and it has been suggested that such languages are indeed poor Case systems with few morphological cases (Comrie & Polinsky 1998). In morphologically rich Case systems, so-called syncretism is very frequent, where several Cases are expressed by the same suffix. Some languages lack morphological Cases and express relational functions such as positioning. An intermediate stage is the morphological residual, which is implemented only on (some) pronouns e.g. in English *he, him*, or *she, her* or in Bulgarian.

### 1.1. Functional vs formal approaches to Case.

The research and study of the category of Case pursue from the outset two fundamentally different theoretical and methodological approaches:

(1) The *descriptive approach*, which investigates the paradigmatic notion of Case and the structure and function of case as a nominal category. Since Case represents one of the most central grammatical categories of Nouns (NPs), or in terms of mainstream Generative Grammar, functional features of nouns, it includes the description of morpho-syntactic relations of Case in different constructions, clauses and contexts, while it tends to give either the general meaning (Jakobson's *Gesamtbedeutung* 'general meaning', or the single functions of Cases as partial meanings (Jakobson's *Teilbedeutungen*). It usually deduces both kinds of Case meanings by means of inductive generalizations using an explanatory approach that captures the functions and the use of case descriptively in its entire functional spectrum.

(2) The other approach to Case goes back to the emergence of *formal models* since the "Generative enterprise" (Chomsky 1957 and 1965, up to the LGB theory in Chomsky 1981 and Minimalism in Chomsky 1995 passim). Generative syntax and Case Theory in LGB, however, tend to a strong formalization. The basic approach here is between inherent, lexical and structural case. While the inherent cases in the LGB model (Chomsky 1981) are defined as the inherent (oblique) case: they can either be assigned as a peculiarity of the lexeme (in German *folgen* 'follow' always assigns the dative, while it 'always' tracks the accusative). Inherent Case is then also referred to as a lexical Case, because it is bound to a certain semantic (Theta-) role; In Latin, the Theta-role INSTRUMENT is used as an inherent case of the surface Case Ablative, while in Russian, the same Theta-role or semantic role 'instrument' is assigned to the surface Case Instrumental.

Structural Case, on the other hand, is defined as follows: The assignment depends on the grammatical function in clause, so that the verb complement is assigned the Acc, and the subject the Nom. Formally, this difference is illustrated by the different projections in the sentence structure, so that Nom is assigned in the structural phrasal constellation [NP, IP] and Acc in the structural phrasal constellation [VP, NP]. Thus, the structural Cases are assigned per default hierarchically by C-command and at the same time adjacently in the immediate vicinity of the case-assigning head of the phase  $I^O$  vs  $V^O$  at the sister node by strict Government (in case of  $V^O$ -NP) or by agreement between specifier and the head (in case of  $I^O$ -NP).

### 1.2. Louis Hjelmslev (1935/1937).

Hjelmslev, one of the founders of glossematics (Copenhagen Structuralism) has, in his treatment of (1935/1937), an overview of the different directions of case theory and distinguishes between localists (1935/1937: 36 passim), anti-linguists (1935/1937: 45ff.) and demilocalists (1935/1937: 55passim), all of which assume a different conception of the general and local case-consciousness, partly localistic approaches, partly logical-relational ones. His system for the 'Indo-Germanic' languages developed an abstract model assuming two features on the horizontal axis,  $\pm$  coherence (1935/1937: 130), and  $\pm$  directionality on the vertical axis. Demonstrated on the example of a non-Indo-European language, Finnish, his model entails a positive value of both features, a negative value or a neutral value (unmarkedness), as seen in Table 2.

Table 2. The General Case System based on Finnish (Hjelmslev 1935/1937).

+ coherence	+ directionality	Illative
+ coherence	O directionality	Inessive
+ coherence	-directionality	Elative
-coherence	+ directionality	Allative

-coherence	O directionality	Adessive	
-coherence	-directionality	Ablative	
O coherence	+ directionality	Case 7	
O coherence	O directionality	Case 8	
O coherence	-directionality	Case 9	

## 1.3. Roman Jakobson's Beitrag zur Allgemeinen Kasuslehre (1936/1971).

Jakobson's important contribution to a General Case Theory is theoretically expressed by the notion of overall meaning. His *Beitrag zur Allgemeinen Kasuslehre* 'Contribution to the General Theory of Case' (1936/1971) gave rise to numerous comments and studies when it first appeared but is even cited in work on generative syntax such as Franks's (1995) influential study. In the introduction, Jakobson reiterates some of the basic principles that underlie his structuralist functional approach to a general theory of language regarding grammatical meaning (which we entirely share here in this work):

- 'Grammar without meaning is meaningless'
- The meaning of a grammatical category is made up of a relation between a general common denominator (*invariant meaning*) and more specific, contextually determined variant (which could be called *partial meaning*).
- The structure of language requires that the meanings of grammatical units just like all other linguistic elements be studied not in isolation from each other but within the system (subsystem) to which they belong
- Meaning is organized in terms of binary oppositions here called 'correlations' defined by abstract semantic concepts (for example directionality, shaping).

On the basis of these prerequisites, Jakobson determines the general meaning of Russian cases, as presented in Table 3:

Table 3. Russian case, after Jakobson (1936/1971).

	General meaning					
Case	Directedness	Scope	Status	Shaping		
Nominative	0	0	О	0		
Accusative	+	0	0	0		
Genitive 1	0	+	0	0		
Instrumental	О	О	+	О		
Dative	+	0	+	0		
Locative 1	0	+	+	0		

Genitive 2	0	+	0	+
Locative 2	0	+	+	+

In *Beitrag*, Jakobson defines the eight Russian cases in terms of four correlations or features (directness, scope, status, and sharping), but later (Jakobson 1958), he works with only three features, given in Table 4:

Table 4: Russian case, after Jakobson (1958/1971).

	Directionality	Quantification	Marginality
Nominative	0	0	0
Accusative	+	0	0
Genitive 1	0	+	0
Instrumental	0	0	+
Dative	+	0	+
Locative 1	0	+	+
Genitive 2	+	+	0
Locative 2	+	+	+

Jakobson himself admits that the term 'general meaning' is not shared by all linguists, but bundling features into a *Gesamtbedeutung* is still a necessity of the system, due to cognitive necessity and economy. The concept based on just three features is not sufficient for determining the syntactic functions of Russian Cases; instead, it must be the syntactic function and not the meaning which is not really determined in his studies.

#### 1.4. The Case Grammars.

### 1.4.1. Charles Fillmore's Case for Case (1968, 1977).

Charles Fillmore (1968, 1977) was one of the first to understand the difference between surface cases and their semantic (deep-structural function); we can demonstrate this difference on the semantic Case LOCAL and the morphological expression of this deep structural or semantic Case. Consider examples (2) and (3):

- (2) Peter lives in Falkensee.
- (3) *Falkensee* is windy.

In these examples there is a difference in the realization of the morphological surface case (m-Case) and the semantic case (s-Case). Thus, in (2) *Peter* is a Nominative subject (s-Case), and *in Falkensee* is a local relationship expressed as PP related to the question "where does Peter live?", i.e locative s-Case.

In contrast, in (3), *Falkensee* is the subject and is expressed in German with the structural or morphological m-case Nominative, although of course neither the description *is windy* nor any other state can be caused or initiated by the subject *Falkensee*.

But since Falkensee expresses the locality semantically in (3), this argument is in fact assigned a local semantic meaning, the s-Case LOCAL. In the system of the semantic (or even deep) Charles Fillmore, the difference between surface Cases (m-Case) and deep semantic Cases (s-Cases) is made for the first time. The semantic case as per Fillmore (1968) does not always correspond to the syntactic and morphological case of the surface, and therefore it is important to determine this case by other means, rather than by morphological or syntactic criteria. The determination of the depths of the causality or relation is based on semantic considerations. For example, the s-Case AGENT is defined as the semantic case that acts on the object of the action from an animate causer of the action. The object affected by the action becomes, depending on the semantics of the verb and its eventive status (action, state, process, etc.), either an EFFECTUM in a sentence like (4):

(4) Peter constructed a house.

or a THEME in (5)

(5) Peter loved his house.

In (5), it becomes clear at the same time that the psychic verb *love* does not signify an action caused by a causer, but rather a mental state of passion, which in this instance is not subject to a conscious agent control, but is simply judgmental, therefore Peter is in (5) not, and unlike (4), designated as an AGENT, but as an EXPERIENCER, the recipient of a psychic experience. This indicates that the number of semantic cases, unlike surface cases, is determined not by the grammar of a language, but by the relationship between the frame (the predicate or also *Thetagrid* in Chomsky 1981), and its semantic relations to the arguments determined by the valency of the predicate.

In Chomsky's generative grammar, Fillmore's achievements are recognized insofar as the notion of semantic or deep case is adopted and modified as a Theta role in Theta theory. The difference, however, is that Chomsky and his followers are trying to syntactically define that term.

1.4.2. Local in Russian (Freidhof 1978)

Gerd Freidhof (1978) has presented a very influential study applying and refining the term deep structural case on the example of local in Russian. In the very careful and precise determination of local relations in Russian, he has not only the case relations in the syntax, but also in a word between the suffix and its stem. In a word like *strel'bišče* 'shooting range' he could therefore make out similar predicative relations as would be the case in one sentence. He also introduced the features Space, Time, Source, and Goal to expand the spectrum of directional and local relationships. Its three levels of syntax have included the following features:

- 1) The verb as a predicator with its actional semantic properties such as *activity, state*, and *process*; unfortunately, the distinction of telicity and resultativity made by Vendler (in terms of *achievement* and *accomplishment*) was not considered.
- 2) The subcategorization properties of the lexical categories (NP, VP, PP, AP)
- 3) the parameters of directionality, source and destination (+/- DIR, +EX, +VIA, +AD) (Freidhof 1978:302)).

### 1.5. LGB (Chomsky 1981) and the Minimalist Programme (Chomsky 1995).

Case theory in LGB (Chomsky 1981) is a partial theory of the modular structure of a grammar in which case theory, theta theory, theory of Government, Binding theory, theory of local constraints, or Bounding theory, and other Partial principles of UG determine the scope of the single module. For example, the basic principles are Empty Category Principle (ECP), Extended Projection Principle (EPP), and C-Command which are important UG Principles within and for Case Theory, Theta-Theory, Government and Binding Theory (thus, the title of the book, and also Theory of Empty Categories) and where each Principle and Module interact with each other.

In LGB (Chomsky 1981), Case Theory is one of the universal grammar modules in the control and binding theory. Case Theory determines that every NP that has phonetic features must be assigned an abstract covert (syntactic) or overt (visible = morphological) Case. This principle is derived from the presence of a drop filter in the interpretative phonetic component of the description:

(i) Case Filter: \* NP [- Case] (Rouveret & Vergnaud, 1980)

Syntactic Case is an abstract concept: it is not necessary to be morphologically realized, and it is not connected with the interpretation itself. However, granting an abstract syntactic Case is a condition for the visibility of the nominal chain, especially the interpretation of its thematic role. Although the authors do not always agree in details and there are considerable differences in LGB (1981) as opposed to MP (1995), the LGB usually distinguishes:

- (ii) Structural Cases (depending on their syntactic configuration) that arise in certain sentence (phrase) configurations. The default form is an inherent Case which, in addition to the structural syntactic configuration, also requires thematic roles; and
- (iii) Lexical Cases, which are individual semantic characteristics of lexical categories (e.g. V°, A°, N°, and P°) that already contain the information about Case assignment properties in the mental lexicon as idiosyncratic subcategorized features of a governing head.

#### 2. M-case and s-case.

Case assignment is the notion of grammatical theory, which explains the morphological case (mcase) and syntactic case (s-case). The distinction between m-case and s-case is theoretically nonneutral, since the interaction of morphology and syntax is modeled differently in the different approaches (Halle, Marantz 1993; Ackema, Neeleman 2007). There are two groups of phenomena that can be kept apart in descriptive works. The purely morphological aspects pertain to the inner structure of case as a morphological category, the identification of its elements and the mapping of meaning to form. Syntactic aspects of case pertain to the phenomenon of depending marking. S-case can be assigned locally by a higher sentence element or non-locally (configurationally), due to some general principles of sentence structure: the encoding of the possessor by the adnominal possessive genitive is an instance of non-local case assignment, cf. Russ statja Ivan-a<sub>GEN</sub> 'Ivan's article', nožka stol-a<sub>GEN</sub> 'the table's leg', since the choice of this m-case form does not depend on inherent features of the head nouns Ivan, stol etc. Both aspects of the case grammar are closely related. On the one hand, recent accounts of m-case include a postulate that m-case is assigned to phrases and not only to word forms (Arkadiev 2016a). On the other hand, accounts of s-case appeal to the morphological notion of markedness, insofar they incorporate a claim that case is assigned according to some hierarchy: less-marked case forms are only assigned if more specific case assigners are absent in the same phrasal domain (Babby 1987; Franks 1995: 95). Recent versions of case hierarchies add such gradations as 'unmarked case' and 'default case' (Marantz 1991; Woolford 2009). These notions refer to situations where a certain case form is either the strongly preferred ('unmarked') or the only one available option ('default'). The candidates for the role of default case in the Slavonic languages are the case forms assumed by the external argument (grammatical subject) — the nominative in Slavonic finite clauses (Babby 1987), and the dative in Slavonic non-finite clauses (Moore, Perlmutter 2000; Zimmerling 2009).

### 2.1. M-case, inflexion and clitics.

M-case is a non-universal characteristic of nouns and other nominals in certain languages, where nominals get two or more regularly differentiated inflexional forms encoding different *semantic roles* e.g. Agent, Patient, Goal, Possessor, Addressee, Instrument, Locative, Directive, Ablative,

Allative etc. (Blake 2004; Spencer 2009). The category of m-case introduces a feature that must assume at least two different positive values [Case<sub>1</sub> ∨ Case<sub>2</sub>...]. If NPs or pronouns in language L show the same form in all syntactic positions irrespective of the semantic role, they lack m-case. According to this criterion, Bulgarian and Macedonian NPs lack m-case, while in the remaining Slavonic languages NPs are case-marked.

The borderline between *case languages* i.e. languages with m-case and caseless languages is not always clear-cut, and this has been a matter of debate in linguistic typology (Haspelmath 2009; 2010; Spencer 2009; Bickel, Nichols 2013). There is a consensus that 'proper' case languages express m-case by means of inflexion, while languages where semantic roles are encoded by *clitics* or postpositions can be identified as case languages only if additional postulates on the mapping of semantic role to morphosyntax are implemented (Beard 1996; Spencer, Otoguro 2005; Otoguro 2006; Belyaev 2018). Inflexional m-case markers are obligatory, while true clitics, i.e. prosodically and syntactically deficient sentence elements, are optional (Zwicky, Pullum 1983) and do not match the regularity criteria satisfied by standard m-case markers.

#### 2.2.S-case.

S-case is a presumably universal abstract feature of NPs. It is typically realized in the positions of syntactic arguments (Chomsky 1995). The standard accounts of s-case are based on the idea that s-case is the NP licensor: all NPs must get s-case in order to be licensed as subjects or objects, a condition known as *Case Filter* (Vergnaud 1977/2006). An alternative approach is advocated in (Marantz 1991), who argues that NP-licensing and case assignment are independent.

The mapping of s-case to m-case is obscured by such phenomena as nominative objects, quirky subjects (Moore, Perlmutter 2000), differential argument marking (Aissen 2003; Woolford 2009), the genitive of negation (Partee, Borschev 2004) and case modifications in the context of numerical expressions (Mel'čuk 1995; Franks 2009; Pesetsky 2013; Lyutikova 2017).

It has been argued that s-case can be construed as a unary feature and applied to a situation where case-marked NPs are opposed to caseless NPs (Arkadiev 2009). Slavonic languages do not provide substantial data for checking this hypothesis.

## 3. M-case in Slavonic languages.

### 3.1.M-case assignment to pronouns.

Slavonic languages encode m-case by means of inflexion. In most Slavonic languages, m-case is assigned to all nominals, although in Bulgarian and Macedonian, only personal pronouns are m-

case marked, while nouns and other types of nominals lack m-case. Both m-case and s-case are assigned to NPs (or pronouns replacing them), not to word forms, though m-case markers can be located overtly in different parts of the NP (Blake 2004; Arkadiev 2016a).

### 3.2. Case-preposition constructions and m-case.

Slavonic languages do not license *case stacking* i.e. assignment of two or more m-case markers to the same NP, a phenomenon attested in a number of the world's languages (Richards 2013).

(iv) In Slavonic languages, m-case is assigned to the NP in the process of derivation only once.

Slavonic prepositions lack properties of m-case markers, if their complement already has m-case. There are case-preposition constructions based on different uses of one and the same m-case combined with the same preposition. E.g., the PP  $[PP \ S \ NP \ Katej]$  "with Katja' has comitative semantics in Russ Vanja prišel na vystavku s Vanja came to the exhibition with Katja'  $\approx$  'Vanja and Katja came to the exhibition', while the PP  $[PP \ S \ NP \ Sumkoj]$  "with a bag' has completive semantics in Vanja prišel na vystavku s Sumkoj 'Vanja came to the exhibition with a bag'  $\neq$  "Vanja and a bag came to the exhibition', but Russian lacks comitative and completive as separate m-cases.

### 3.3. The Common Slavonic m-case system, prepositions and the locative case.

The Common Slavonic m-case system included seven m-cases: nominative (Nom), genitive (Gen), dative (Dat), accusative (Acc), instrumental (Instr), locative (Loc), vocative (Voc). All m-cases, except for Nom and Voc, could be used after prepositions. The history of Slavonic languages is characterized by the increase of the preposition-case constructions at the expense of bare case forms, but all oblique cases except for Loc generally retain the bare forms. In Loc, the use of the preposition is compulsory in modern Slavonic languages.

In older Slavonic languages, the prepositions selecting Loc cannot be analyzed as m-case assigners. In modern Slavonic, such an analysis is possible. However, the prepositions selecting Loc normally retain parallel uses with other m-cases, cf. Russ o sten-e<sub>LOC</sub> 'about the wall' but udaritisja o stenu<sub>ACC</sub> 'to hit a wall'. Therefore, additional postulates are needed in order to explain the case of the PP-complement with polyvalent prepositions. The use of Nom after prepositions is discussed in 5.4.2.

#### 3.4. Genitive II and Locative II.

Jakobson's and Zaliznjak's classical accounts (Jakobson 1936/1971; 1958/1971; Zaliznjak 1967/2002) advance a claim that Russian has two pairs of genitive and locative m-cases: Gen I vs Gen II, Loc II vs Loc II.

Gen II is encoded by the ending -u/-ju, which some uncountable masculine nouns as *chaj* 'tea', *saxar* 'sugar' take in the partitive contexts like 'to pour/have some tea'. The same nouns also take Gen I, which leads to the variation vypit' ča- $ja_{GEN I}$  'to pour tea'  $\sim vypit'$  ča- $ju_{GEN II}$  'to pour some tea'.

Loc II is encoded by the homophonous ending -u/-ju (the word forms of Gen II and Loc II can nevertheless be non-syncretic, cf. podbavj  $dym-u_{GEN II}$  'add some smoke!' vs v  $dym-\dot{u}_{LOC II}$  'in(side) the smoke') on a minority of masculine nouns, where it is the strongly preferred form, while the vast majority of masculine nouns takes Loc I, cf. v  $vozduh-e_{LOC I}$  'in the air', \*v vozdux-u. The variation Loc II ~ Loc I is nevertheless attested, cf. v  $dym-u_{LOC II}$  ~ v  $dym-e_{LOC I}$  'in the smoke'.

The same analysis can be applied to Belorussian. In Ukrainian, the Gen II ending has a broader distribution, cf. Ukr. cukr- $u_{\text{GEN II}}$  'of sugar', vitr- $u_{\text{GEN II}}$  'of (the) wind', tuman- $u_{\text{GEN II}}$  'of (the) fog', gorizont- $u_{\text{GEN II}}$  'of (the) horizon', bol'- $ju_{\text{GEN II}}$  'of (the) pain', krik- $u_{\text{GEN II}}$  'of (the) scream', rozum- $u_{\text{GEN II}}$  'of the intellect', teatr- $u_{\text{GEN II}}$  'of (the) theater'.

Neither Gen II nor Loc II match the criteria for standard m-cases (Kustova 2011). Irrespective of the fact whether the speaker selects Gen I or Gen II, the adjective in (6) assumes the form *zelenogo*:

The same holds for the variation Loc II  $\sim$  Loc I. Cf. the standard variant (7a) with the archaic/substandard (7b):

If m-case is an NP-level feature rather than a feature of the head noun, neither Gen II nor Loc II are separate m-cases. (6a—b) shows genitive concord, while (7a—b) shows locative concord.

### 3.5.Grammaticalized prepositions.

Bulgarian and Macedonian developed the grammaticalized preposition  $\mu a$  marking the theta-role of Goal. The Goal markers are different from the lexical prepositions with the locative/directive semantics. The former, but not the latter can be doubled by a clitic (Slavkov 2008: 147).

The Goal marker na is not a marker of m-case. For the first, the role of Goal is signaled by the co-referential clitic. For the second, the Goal marker is optional. If the indirect object is clitic-doubled, na can be dropped in colloquial speech (Tiševa, Džonova 2011; Slavkov 2008).

## 3.6. Clitic-doubling, specificity and m-case.

Bulgarian and Macedonian display *clitic doubling* i.e. cross-referencing of direct and indirect objects by Acc and Dat clitics, cf. However, Slavonic cross-referencing markers do not match two criteria for case affixes. 1) Bulgarian and Macedonian argument clitics are part of the verbal complex and lie NP-externally; 2) the presence of the cross-referencing marker depends on the specificity of the NP and/or on the syntactic configuration. In Macedonian, specific direct objects are always doubled, while non-specific direct objects are never doubled (Mišeska-Tomić 2012: 249—253). With Macedonian indirect objects, the use of the cross-referencing marker does not reflect the opposition of specific vs non-specific referents, since weak referential and non-specific NPs are optionally clitic-doubled too.

(10)	Mac.	a.	Jana Jana	(mu <sub>i</sub> ) CL.3S	go G.DAT. M	j CL3SG.A	dade .CC.N	gave-F	PST	pismo-to <sub>j</sub> letter-DEF
			na		dete <sub>i</sub> .					
			GOAL		child.N.So	G				
			'Jana g	gave the	letter to a	(mere) chi	ld.'			
		b.	$^{?}(\mathbf{Im}_{i})$		dava-m		knigi	na	deca-v	a <sub>i</sub> .
			CL.3Pl	L.DAT	gave-1SG	.PRS	books	GOAL	child-l	Pl.PROX
			'I am g	giving b	ooks to the	se children	.,			

Thus, despite Bulgarian and Macedonian having special strategies for marking indirect objects, neither the Goal marker *na*, nor the cross-referencing Dat clitic behave as m-case markers on the NP.

### 4. Case syncretism and m-case sets.

### 4.1. Syncretic case forms.

M-case languages usually have homophonous forms representing different m-cases, a phenomenon called *case syncretism*, cf. (AUTHORS, CHAPTER, THIS VOLUME). Delbrück, who introduced this term, claimed that case syncretism is historically determined by the evolution of Indo-European languages, since their case system has been shrinking since the late PIE period (Delbrück 1907). In modern linguistic typology, Delbrück's claim has been reset as a definitional property of all m-case languages (Baerman, Brown, Corbett 2005; Belyaev 2018):

(v) All case languages have at least one pair of homophonous word forms representing different m-cases.

In Zaliznjak's model (Zaliznjak 1967/2002) case values are checked on the level of word form. Each m-case is represented by a set of word forms called 'm-case set'. Separate m-cases are postulated, if their m-case sets contain non-ambiguous (i.e. non-syncretic) word forms.

(vi) Each m-case must contain at least one non-syncretic word form which is not included in any other m-case set.

## 4.2. Case syncretism and animacy.

According to the general characteristics of inflectional languages and to the raise of the animacy category, proper m-case values are expressed by Slavonic nominal endings fusionally in a combination with  $\phi$ -features (number-and-gender) and values of the animacy parameter.

The animacy feature is directly based on case syncretism: syncretic vs non-syncretic forms of the 3 structural m-cases — Nom, Acc and Gen — are selected depending on the animacy value. Slavonic animate nouns have non-syncretic  $\operatorname{Nom^{ANIM}} \neq \operatorname{Acc^{ANIM}}$  but syncretic  $\operatorname{Acc^{ANIM}} = \operatorname{Gen^{ANIM}}$ , while for Slavonic inanimate nouns, the picture is reversed: syncretic forms in the pair  $\operatorname{Nom^{NONANIM}} = \operatorname{Acc^{NONANIM}}$  but non-syncretic ones in the pair  $\operatorname{Acc^{NONANIM}} \neq \operatorname{Gen^{NOANIM}}$  (Krysko 1994); see Table 5.

Table 5. Animacy and Case syncretism in Slavonic languages.

[+ Animate]	[ - Animate]

Syncretic forms	Acc = Gen	Acc = Nom
Non-syncretic forms	Acc ≠ Nom	Acc ≠ Gen

In Russian, Belorussian and Ukrainian the system shown in Table 5 is displayed both in Sg and Pl, while in Czech, Slovak, BCS and Slovenian it is displayed only in Sg. More conservative Slavonic idioms retain non-syncretic forms of Nom and Acc in Pl and Du (if the latter number is preserved). Polish developed the distinction of so called virile (V) masculine forms [+ animate; + masciline; + human] vs non-virile (NV) forms. The V-declension has non-syncretic Nom  $\neq$  Acc in Pl, cf. *chlop-i*<sub>NOM.PL.M.V</sub>  $\sim$  *chlop-ow*<sub>ACC.PL.M.V</sub> 'boys', while the NV-declension has syncretic Nom = Acc in Pl, cf. *kot-y*<sub>NOM.PL.M.NV</sub>  $\sim$  *kot-y*-ACC.PL.M.NV 'cats'.

Older instances of syncretism relate to the homonymy of all neuter (inherently inanimate) forms of Acc and Nom. The -a ending of the Acc/Nom.Pl.N is homonymic to the ending of the Nom.Sg.f in the -a declension: ORuss  $va\check{s}-a$  'yours' is ambiguous between Nom.SG.F,  $va\check{s}-a$  gramot-a 'your letter-SG' and Acc/Nom.Pl.N,  $va\check{s}-a$  poslani-ja 'your writings-PL'.

The -a forms of Acc/Nom.Pl.N normally have the same segmental inventory as the -a forms of Gen.Sg.n. The ambiguity of this kind is often resolved in free stress Slavonic languages: R  $\delta kn$ - $a_{PL}$  'windows'  $\sim okn$ - $\dot{a}_{SG}$  'of the window'. The same tendency is characteristic of other paradigms, cf. two forms of the feminine noun voda 'water': Russ  $\dot{vod}$ - $y_{PL}$  'waters'  $\sim vod$ - $\dot{y}_{SG}$  'of the water'. In tonal Slavonic languages, segmentally identical word forms sometimes are disambiguated by the lexical accent, cf. BCS  $v\dot{o}da_{NOM.SG}$  vs.  $v\dot{o}d\bar{a}_{GEN.PL}$ ,  $g\dot{o}vna_{GEN.SG}$  'of shit' vs.  $g\dot{o}vna_{NOM.PL}$ .

The disambiguation of syncretic forms can be done a) on the word level, by means of prosody, see the examples above b) on the phrasal level, cf. Russ *dva jabloka*<sub>ACC-NOM.PL</sub> 'two apples'~ *ot jabloka*<sub>GEN.SG</sub> 'from the apple' and c) on the clausal level. The disambiguation of Russ *èti interesnye knigi*<sub>PL.F</sub> 'these interesting books' as having m-Acc or m-Nom requires a look-up to clausal structure in order to establish whether this phrase is used in the position which can be filled by unambiguous m-Acc or unambiguous m-Nom elements.

#### 4.3. Count form as a non-canonic m-case.

If the criterion (iii) is accepted, the count form (COUNT) assumed by Russian nouns in the context of simple and complex cardinals ending in dva '2', tri '3', četyre '4' and numerical expressions oba 'both' and poltora 'one and a half' must be identified as an m-case, since the m-set of COUNT contains 5 non-syncretic masculine forms: Ru <dva, tri, četyre> rjad-å, sled-å, chas-å, shag-å, shar-å '<two, three, four > rows, traces, hours, steps, balls' (Zaliznjak 1967/2002: 47). A similar account can be given for Belorussian. In Ukrainian, non-syncretic COUNT forms are attested in all genders: Uk moï kilim-ýNOM.PL.M 'my carpets' ~ \(\pa\)68 a kílim-tílim-ýNOM.PL.M 'my carpets' ~ \(\pa\)68 a kílim-tílim-

y<sub>COUNT.M</sub> 'two carpets', moï derév-a<sub>NOM.PL.N</sub> 'my trees' ~ ∂βα dérev-a<sub>COUNT.N</sub> 'two trees', moï vchitel'k-i<sub>NOM.PL.F</sub> 'my female teachers'— dvi vchitel'k-i<sub>COUNT.F</sub> 'two female teachers'.

Although the East Slavonic COUNT satisfies (vi), it lacks the full properties of m-case. There is no case concord, as the adjectival modifiers always stand in Pl:

'Nine beautiful female teachers.'

Bulgarian and Macedonian developed COUNT too. In Bulgarian, COUNT occurs on all nominals in the context of all cardinals and indefinite quantifiers: Bg učebnic-i<sub>PL</sub> 'textbooks' ~ dva/devet učebnik-a<sub>COUNT</sub> 'two/nine textbooks', njakolko učebnik-a 'some textbooks'. Since Bulgarian and Macedonian NPs are m-caseless, Bg/Mc COUNT is not an m-case form either, while the East Slavonic COUNT has a status intermediate between a context-dependent m-case (Zaliznjak 1967/2002: 47) and a paucal number (Madariaga, Igartua 2017).

5.S-case and Case hierarchy.

### 5.1. Case hierarchy.

The variety of Slavonic s-cases can be described by a four-element hierarchy (vii), adapted from (Marantz 1991) and (Lyutikova 2017: 148):

- Inherent case >> Structural case >> Unmarked case >> Default case. (vii) Inherent and structural case.
  - 5.1.1. Inherent case and structural case.

The term 'inherent case' refers to situations, where the case form depends on the idiosyncratic valency of the particular assigner i.e. on the chosen verb, preposition, adjective etc. taking Dat, Instr, Loc complements etc., cf. Russ upravljat' mašinoj<sub>INSTR</sub> 'to drive a car', ždat' pis'ma<sub>GEN</sub> 'to wait for a letter', doverjat' drugu<sub>DAT</sub> 'to trust a friend'. Inherent case is determined by the lexicon and is not predicted by grammar.

The term 'structural case' refers to situations, where the case form is determined by the phrasal structure. Slavonic languages have *accusative alignment*, therefore the prediction is that the THEME argument gets structural Acc in all transitive clauses in the active voice. Since Slavonic languages also have verbs selecting object complements in the oblique cases, a stipulation is needed: structural Acc is assigned if there are no licensors of the inherent case in the same domain:

(viii) inherent case has the priority over structural case.

#### 5.1.2. Unmarked case and default case.

The unmarked case is the form assigned in the situation where several s-cases alternate in positions of the same type (cf. Slavonic Gen of negation vs Acc of negation, Slavonic predicative Instr vs predicative Nom) and the assignment of one of such s-cases does not need special motivation. The default case is the form assigned in the situation where s-case alternation is excluded. The differentiation of the unmarked vs default case depends on the chosen variant of the case theory but also has a descriptive potential and is on line with the traditions of Slavonic linguistics. E.g., the adnominal genitive of possession in most Slavonic languages is the unmarked case form assigned at the NP-level. However, the nominative in some Slavonic languages and in some other languages with the so called accusative alignment is not only the case of the transitive subject and the sole argument but also the preferred case form with the infinitival complements (the nominative of object, see below 5.4.2.) in the contexts of enumeration (see below 5.4.1.). If one rejects the claim that all uses of an underlying m-case (Nom, Gen etc) necessarily get one and the same s-case in Case hierarchies like (vii), the Nom of object should rather be identified with as an unmarked case form alternating with the marked form of the accusative in the same position. However, the Nom of the external argument (a shared syntactic status postulated for transitive agentive subjects and the sole arguments of the intransitive verbs) is the default case form, since all Slavonic languages invariably assign Nom to the subject of the finite clause. If the hypothesis on Nom as the default case in the Slavonic finite clauses is accepted, there are reasons to treat Slavonic Dat as its counterpart in the non-finite clauses: this issue is briefly addressed in section 5.4. A summary of the diagnostic s-case uses is given in Table 6.

Table 6. Case assignment in Slavonic languages.

	Inherent Case	Configurational case			
		Structural case	Unmarked case	Default case	
Assignment	local	non-local	non-local	non-local	
Diagnostic uses	oblique (Obl) case forms assigned by verbal, adjectival, predicative, nominal and prepositional heads	Acc of theme Gen of negation predicative Instr agentive Instr	non-argument Nom Nom of object adnominal Gen of possession	Nom of the external argument (finite clauses)  Dat (non-finite clauses)	

## 5.2.Direct case, the genitive of negation and Direct Case Condition.

In historical Indo-European studies, Nom is identified as a *direct case*, since this form sets up the declension paradigms and is used in the dedicated position of subject. In some case grammars, this notion is extended to a set of s-cases including Nom and some oblique cases, if some of their uses display a structural similarity with the behaviour of Nom. Slavonic languages give two reasons to extend the notion of direct case to the pair Nom: Acc or even to the triad Nom: Acc: Gen. For the first, the forms of Nom and Acc are often syncretic. For the second, North Slavonic displays a structural use of Gen, the genitive of negation ( $Gen_{NEG}$ ), which correlates both with structural Nom and structural Acc. While Russian finite clauses with a positive polarity require structural Nom and Acc in the positions of subject and object, Russian finite clauses with a negative polarity require or strongly prefer the modification  $Acc_{THEME} \rightarrow Gen_{NEG}$  in the object position and license the modification Nom  $\rightarrow$   $Gen_{NEG}$  by unaccusative subjects:

(13)	R	а. Ivan Иван.NOM.SG.M	posla-l send-PST.SG.M	knig-u. book-ACC.SG.F
		'Ivan sent a book.'	SCHU-1 51.5U.W	book-Acc.sg.r
	b.	Ivan	ne posla-l	knig-i.
		Иван.NOM.SG.M	<b>NEG</b> send-PST.SG.M	book-GEN.SG.F
		'Ivan did not send a	book.'	
(14)	R	a. Knig-a	priš-l-a.	
		Book-NOM.SG.F	come-PST-SG.F	
		'The book arrived (o	n time).'	
	b.	Knig-i	ne priš-l-o.	

### Book-GEN.SG.F NEG come-PST-SG.N

'The book did not arrive (yet).'

A further support for the claim that Acc<sub>THEME</sub> is a direct s-case comes from the distribution of the quantifiers like R *mnogo* 'many', *malo* 'few', *nemnogo* 'a bit', *neskol'ko* 'some', which have the syncretic Nom-Acc form and are exclusively used in the positions of subject and direct object (Babby 1987). A similar observation has been made for Russian distributional and approximative phrases *po odnomu čeloveku* 'by one person', *studentov pjat*' 'about five students' etc, which are only used in the positions of structural Nom and Acc (Testelets 2013).

## 5.2.1. The genitive of negation and polarity.

The  $Gen_{NEG}$  is a North Slavonic partitive-type construction induced by the Circum-Baltic influence (Dahl, Kopjevskaja Tamm 2000). It is usually assigned locally by the same clause negation. The presence of a *negative polarity item* (NPI) increases the acceptability degree of the modification Nom  $\rightarrow$   $Gen_{NEG}$ .

?/\* Utk-i R (15)prud-u ne plava-1-o. duck-GEN.SG.F pond-LOC II.SG.M NEG swim-PSTin SG.N Int. 'A duck did not swim in the pond.' b. Ni-kak-oi utk-i v prud-u no-WH-GEN.SG.F duck-GEN.SG.F pond-LOC II.SG.M in plava-l-o. ne NEG swim-PST-SG.N 'No duck swam in the pond.'

In the history of Russian, the partitive-type Gen construction dubbed 'Gen of the incomplete coverage' (Krysko 1994) was wide-spread in clauses with positive polarity both with non-countable and countable nouns: the transitive verbs could assign Gen in the absence of any negative element. The status of the *long-distance genitive* (Arkadiev 2016b) is difficult to test: the Gen form on the noun *spravedlivosti* in the first clause of (16) could be assigned both by the negation *ne* 'not' and by the verb *činiti* 'do'.

(16) OR i [TP my takže [NegP ne [VP budem vašim rižanom v Polocku [VP spravedlivosti<sub>EN.SG.F.</sub> činiti]]], kak [TP vy [VP našim [poločanom v Rizě svpravedlivosti ne činite]] (1481 A.D.)

'Neither will we provide justice to your Riga residents in Polotsk, as you do not provide justice to our residents of Polotsk in Riga.'

## 5.2.2. The disintegration of the Slavonic partitive construction.

The combination of Gen with the negation was possible in the early Slavonic languages, but the contemporary Slavonic Gen<sub>NEG</sub> construction developed only after the disintegration of the former partitive Gen. It results from two processes: 1) elimination of the partitive Gen in non-negative clauses; 2) differentiation of the Gen uses with countable and non-countable nouns. The Old Slavonic partitive Gen covered all 4 combinations of the features ' $\pm$  negative' and ' $\pm$  countable', while Gen<sub>NEG</sub> covers a single slot '+ negative & + countable', as seen in Table 7.

Table 7. The Old East Slavonic partitive construction.

	Non-negative clauses	Negative clauses
countable nouns	+	+
non-countable nouns	+	+

The former partitive construction with countable nouns survives in the non-negative clauses in a closed group of verbs with the lexical meanings 'to want', 'to look for', 'to wait', 'to fear', which license Gen irrespective of the polarity. Cf. Russ *iskat'* rešeni-ja<sub>GEN</sub> 'to look for a solution', bojat'sja žen-y<sub>GEN</sub> 'to fear one's wife'. In Russian, only non-countable nouns (17a) and plural countable nouns (17b) license Gen in the absence of an overt assigner in the context "Wow! A lot of x here!", while non-plural forms of countable nouns are ill-formed in this context, cf. (18). A comparison of Gen constructions in Russian is given in Table 8.

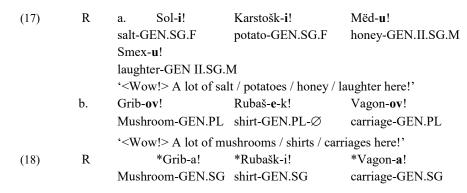


Table 8. Gen<sub>NEG</sub> vs other genitive constructions in Russian.

	Non-negative clauses	Negative clauses
countable nouns	Adverbal Gen by verbs of	Gen <sub>NEG</sub> (structural case)
	volition and affection	не получить письма
	(inherent case)	'do not receive letters', lit. 'do
	ždat' premiery 'to wait for the	not receive a letter'
	premiere'	

	bojat'sja ženy 'to be afraid of one's wife'	
non-countable nouns, nouns of	Partitive adverbal Gen (inherent case)	
indefinite quantity	dat' mëdu 'to give honey', kupit' soli, rubašek 'to buy salt, shirts'	
	Gen of indefinite quantity (inherent case)	
	Mëdu! Smexu! Gribov! 'Wow! A lot of honey, laughter,	
	mushrooms here!'	

5.2.3. The genitive of negation in the passive clauses.

Gen<sub>NEG</sub> can be assigned in the passive clauses, cf. (19a).

(19) R a. Otče-ta predstavlen-o ne byl-o.

Report-GEN.SG.N submit.PART.SG.N NEG be-PST-3SG.N

'The report has not been submitted.'

b. \*\*Pivan ne predstavi-l \*otčet-a.

Ivan-NOM.SG.M NEG submit-PST.NOM.SG.M report-GEN.SG.M

Int.: 'Ivan did not submit the report.'

Slavonic clauses with non-agreeing *-no /-to* participles are often ambivalent between a proper passive and impersonal reading, while Gen<sub>NEG</sub> can be homonymic to Gen<sub>INDEF</sub>. (20a) and (21a) are not passives, but impersonals with Gen<sub>INDEF</sub>. (20a—b) show the non-countable noun *xne6* 'bread', while (21a—b) show the countable plural *vagony* 'carriages' in the contexts of definite and indefinite quantity. The replacement of the Pl form with Sg yields ungrammaticality in (21c). This test shows that the Russian transitive verbs like *zakupit*' 'purchase' which license Gen<sub>NEG</sub> do not license the Gen<sub>NEG</sub>.

- (20) R a. Xleb-a ne by-l-o kuplen-o.
  Bread-GEN.SG.M NEG be-PST-SG.N buy.PART-SG.N
  'the bread has not been bought.', lit. 'of-the-bread has not been bought.'
  - b. Xleb-a na-kuplen-o...Bread.GEN.SG.M MULT.PV-buy.PART-SG.N'Wow! How much bread was bought...!'
- (21) R a. Vagon-ov zakuplen-o ne by-l-o.
  Carriage-GEN.PL purchase.PRT-SG.N NEG be-PST-SG.N
  'No carriages have been purchased.', lit.: 'of-the-carriages...'
  - b. Vagon-ov zakuplen-o...
    carriage-GEN.PL purchase.PRT-SG.N

'Wow! How many carriages have been purchased...!'

c. \*Vagon-a zakuplen-o...
carriage-GEN.SG purchase.PRT-SG.N

### 5.2.4. Case alternation in the negative clauses.

The  $Gen_{NEG}$  does not reach the status of default case, since Slavonic languages retain structural Acc and Nom in the negative clauses, cf. also the alternation  $Gen_{NEG} \sim Acc_{NEG}$ :

(22)R a. Ona ne vide-l-a Van-i lekci-i. na 3SG.F. NEG see-PST-SG.F Vanja-GEN.SG.M lecture-LOC on 'She did not see Vanja at the lecture.' b. Ona ne vide-l-a Van-ju lekci-i. 3SG.F. NEG see-PST-SG.F John-ACC.SG.M on lecture-LOC 'the same.'

The variation of the type (22a—b) is partly triggered by information structure.

### 5.2. Accusative impersonals.

According to Burzio's Generalization (BG), verbs which lack an external argument fail to assign structural Acc (Burzio 1986: 178—179). Slavonic languages offer a challenge to this claim, since they license transitive impersonals, where structural Acc is assigned to an overt THEME argument (Acc<sub>THEME</sub>), while the Nom argument is lacking, cf. R *Trub-u*<sub>ACC.SG</sub> *sdul-o*<sub>3SG.N</sub> (*vetr-om*<sub>INSTR</sub>) 'the chimney was blown away by the wind', Sk *Aby ho*<sub>ACC</sub> *tam porazil-o*<sub>3SG.N</sub> 'let him be smashed!', Sn *Od morja je gnal-o*<sub>3SG.N</sub> *sivi oblaki*<sub>ACC.PL</sub> '<it> drove the grey clouds from the sea' (Mrázek 1990: 96). The licensor of Acc<sub>THEME</sub> is identified as a zero subject Ø<sup>ELEMENTS</sup> with the role-and-reference properties of a non-controlled external force (Mel'čuk 1995: 180; Zimmerling 2013) or as a vP-internal element with the defective T(ense) P(hrase) (Lavine, Freidin 2002; Lavine 2014). BG captures the relation between the role of THEME and the correlative roles of AGENT/ FORCE, rather than the relation between two case-marked NPs.

(ix) Slavonic verbs assigning Acc<sub>THEME</sub> to their internal argument have an argument structure projecting the overt or covert Agent of Force argument.

#### 5.3. The instrumental case and case polysemy.

There is a long debate over whether m-cases have invariant meanings (Jakobson 1936/1971) or are polysemous (Delbrück 1907). Slavonic languages rather support the latter view, since one

and the same m-case often corresponds to different inherent and structural s-cases. The Slavonic Instr is especially telling, since it covers a broad variety of constructions (Mrázek 1964; Wierzbicka 1980). While Slavonic verbs and nominalizations usually do not license two NPs in the same m-case, two Instr NPs licensed by one predicate are possible if they have different semantic roles, cf. R *Invalid upravljal mašin-oj*<sub>INSTR</sub> nog-ami<sub>INSTR</sub> 'The disabled person drove the car with his feet.' Two uses of the Slavonic Instr are the Instr of Agent (Instr<sub>AGENT</sub>) and the predicative Instr (Instr<sub>PRED</sub>) — pattern with structural s-case.

### 5.3.1. The instrumental of Agent and the instrumental of conversion.

Some Slavonic languages with case-marked NPs encode the Agent in passive clauses with Instr. The agentive NP is specified as animate. The homonymic use of  $Instr_{CONV}$  in participial clauses is attested by conversive verbs like *okružatj* 'to surround', cf. R *dom \*umyšlenno okružen rvo-m*<sub>INSTR</sub> 'The house is \*deliberately surrounded by the moat', where the infelicity of the adverb demonstrates that in this sentence, the Instr is thematically not an Agent. Such verbs have two internal arguments, each of which can be chosen as surface subject.

### 5.3.2. The predicative instrumental and syntactic control.

Common Slavonic lacked a generalized s-case for the secondary predicates. This type of structural case evolved on the basis of Instr as a replacement of the Indo-European *double case* construction with copying of the case value onto the predicative complement (Potebnja 1874/1958; Henschel 2009). Instr<sub>PRED</sub> is characteristic of the North Slavonic area. Bare forms of Instr<sub>PRED</sub> are also attested in Slovak, Czech and BSC, while in Upper and Lower Sorbian Instr<sub>PRED</sub> is realized with an obligatory preposition (Mrázek 1990: 68)

(23) LSo Mjertyn Fabricius kenž bešo tam **z** farar-**jom**.

Mjertyn Fabricius who BE.PST.3SG there **with** vicar-**INSTR.SG.M**'M.F., who was the vicar there.'

Both the double case construction and Instr<sub>PRED</sub> instantiate *syntactic control* (Landau 2000; 2008; Witkoś 2010; Lindert 2017), while a case-marked argument selects the case on the co-predicate NP/AP via the mediating verbal head:  $CASE_i \dots v_i^0$   $CASE_i$ . The double case construction occurred with Nom, Acc or Dat in the Old Slavonic languages, while Instr<sub>PRED</sub> is only licensed if the controller has structural Nom or structural Acc (see Table 9).

Table 9. The double case construction and Instr<sub>PRED</sub>.

Case form of the controller	Old Slavonic double case	Instr <sub>PRED</sub>
	construction	
Structural Nom and Acc <sub>THEME</sub>	+	+

Oblique case	+	-

Instr<sub>PRED</sub> is widely used in copular sentences with equative, qualifying and identificatory semantics:

(24) a. Pl Pan Piotr **jest** professor**-em**. mister Piotr-NOM.SG.M BE.AUX.PRS.3SG professor-

### **INSTR.SG.M**

'Mr. Piotr is professor'.

b. Uk A može, oti čutk-i ε čist-oj pravd-oju?
 And maybe these rumour-PL BE.AUX true-INSTR.SG.F truth-

### **INSTR.SG.F**

'What if these rumours are indeed true?'

The standard generalization of the Russian facts is that Instr<sub>PRED</sub> is licensed either by the same clause subject with the verbs of *subject control* like 'be' or by the *small clause* (SC) subject with the verbs of *object control* like *priznat*' 'to acknowledge' in the presence of a non-zero verb form (Bailyn 2014; BAILYN, MADARIAGA, Chapter 6.7 Small Clauses in Slavic, this volume].

- $(25) \qquad \text{R a.} \qquad \text{Ir-$a_i$} \qquad \text{prizna-l-$a$} \qquad \qquad \left[_{SC} \text{ Petr-$a_j$} \quad \text{umn-$ym$}\right].$   $\text{Ira-NOM.SG.F acknowledge-PST-SG.F} \qquad \text{Peter-ACC.SG.M} \qquad \text{clever-INSTR.SG.M}$ 
  - 'Ira declared Petr intelligent.'
  - b. \*Ir- $\mathbf{a_i}$  prizna-l- $\mathbf{a}$  [SC Petr- $\mathbf{a_j}$  umn- $\mathbf{o_j}$ ]. Ira-NOM.SG.F acknowledge-PST-SG.F Peter-ACC.SG.M clever-INSTR.SG.F
    - Int. 'Ira declared Petr intelligent.'
  - c. \*Ir-a $_{\rm i}$  prizna-l-a [ $_{\rm SC}$  Petr-a $_{\rm j}$  umn-ogo]. Ira-NOM.SG.F acknowledge-PST-SG.F Peter-ACC.SG.M clever-ACC.SG.M
    - Int. 'Ira declared Petr intelligent.'

A minority of Russian speakers licenses Instr<sub>PRED</sub> on the adjective in the absence of a Nom controller.

(26) Non-st. R [ $_{TP}$  Polic-ii stal-**o** izvestn-**ym**, Police-DAT.SG.F. become-PST.3SG.N known-INSTR.**SG.N** [ $_{CP}$  chto Vy pere-sla-l-i kakoe-to That 2SG.Polite re-send-PST.PL some.ACC.SG.N

pis'm-o otsjuda] (1908) letter-ACC.SG.N from.here 'The police found out that you had forwarded some letter from here', lit. 'to-the-police became known that...'

This use of Instr<sub>PRED</sub> is based on the parameter which licenses control on the part of raised non-canonic sentential subjects (Zimmerling 2018). Standard Russian requires the non-agreeing predicative *izvestno*<sub>PRED</sub> instead of the case-marked predicative adjective *izvestn-ym*<sub>INSTR</sub>.

## 5.3.3. Case alternation with the predicative complements.

Instr<sub>PRED</sub> does not reach the status of a default case, since Slavonic languages preserve the alternation  $Instr_{PRED} \sim Nom_{PRED}$ . Polish eliminates this alternation in finite clauses. Polish predicative adjectives get  $Nom_{PRED}$ , while Polish NPs get  $Instr_{PRED}$ , so that the competing forms are in complimentary distribution (Witkoś 2008; 2010). Polish embedded infinitives assign both case forms (Lindert 2017):

Pl. a. Piotr mił-y]. (27)próbu-je InfP być Peter-NOM.SG.M try-PRS.3SG. BE.INF good-NOM.SG.M 'Piotr tries to be nice.' b. Piotr próbu-je być mily-m]. [InfP Piotr-NOM.SG.M try-PRS.3SG. BE.INF good-INSTR.SG.M 'the same.'

Russian mirrors the Polish situation. Russian infinitives assign Nom<sub>PRED</sub> and block Instr<sub>PRED</sub>, while Russian main clause verbs with a non-zero form license both Instr<sub>PRED</sub> and Nom<sub>PRED</sub> to predicative adjectives/NPs.

(28) Russ. a. \*Petja pytaet-sja [InfP byt' dobr-yj].

Peter-NOM.SG.M try-PRS.3SG BE.INF good-NOM.SG.M

Int: 'Petja tries to be nice.'

b. Petja by-l dobr-ym/ dobr-yj.

Petja-NOM.SG.M BE-PST.3SG good-INSTR.SG.M /good-NOM.SG.M

'Petja was nice.'

NOM.SG.M

c. Petja by-l huligan-**om**/ huligan- $\varnothing$ .
Petja-**NOM.SG.M** BE-PST.3SG hooligan-INSTR.**SG.M**/hooligan-

'Petja was a hooligan.'

Descriptions of Russian based on the usage of the first half of the 20th century incorporate a claim that  $Instr_{PRED}$  is the prescribed variant with stage-level predication (SLP) and situational characteristics and  $Nom_{PRED}$  is the prescribed variant with individual-level predication (ILP) and designations of stable properties (Ščerba 1928/2008: 90; Peškovskij 1938: 237, 256; Švedova 1982: 238—239). Some more recent research claims that the alternation  $Instr_{PRED} \sim Nom_{PRED}$  is no longer encapsulated by the SLP  $\sim$  ILP contrast (Guiraud-Weber 2007; Krasovitsky et al. 2009), while Nichols (1981), Pitsch (2017), and Žuravleva (2018) advocate the idea that the distribution of  $Instr_{PRED}$  is still driven by the SLP  $\sim$  ILP distinction, see section **6.** below.

## 5.3.4. The evolution of the predicative instrumental.

The evolution of Instr<sub>PRED</sub> in the history of Russian and Ukrainian has been described already in Potebnja (1874/1958). Instr<sub>PRED</sub> originates in the object predicate position, where it competes with Acc. The variation Nom<sub>PRED</sub> ~ Instr<sub>PRED</sub> is first attested on NPs in the past tenses. At a later stage, it is introduced to NP-complements of finite verbs in the present tense and even later — in the future tense. The spreading of Instr<sub>PRED</sub> to adjectives dates back to the early 19th century (Peškovsky 1936: 238). The chronology of Instr<sub>PRED</sub> in the history of Polish and Belorussian is arguably different, since the forms of the Instr<sub>PRED</sub> are more common in Old Polish and Late Old West Russian texts of the XV-XVI centuries (Borkovsky, Kuznetsov 1963: 334; Henschel 2009: 379).

#### 5.4. The nominative as unmarked and default case.

The notion of unmarked and default case goes back to Miklosich (1883), Potebnja (1874/1958), and Popov (1881/2012). These authors claim that Old Slavonic Nom was neither a locally governed case, nor part of any sentence pattern, but a form selected in all contexts where a specific assigner was lacking or non-obligatory.

### 5.4.1. The nominative as unmarked case in the non-argument positions.

In Modern Slavonic, Nom is the unmarked case in all positions where it competes with Gen<sub>NEG</sub> and Instr<sub>PRED</sub>. In Old Slavonic, Nom alternated with Acc<sub>THEME</sub>, with Instr<sub>PRED</sub> and was licensed in non-argument positions in a number of constructions. One of these constructions involved the assignment of Nom to the extraposed non-agreeing topic (Nom<sub>TOP</sub>).

(x) 
$$Nom_{TOP}$$
 [ ... $v^0$ <sub>i</sub>...  $CASE_{i}$ ...]

One more context for unmarked case involved the Nom of enumeration (Nom<sub>EN</sub>): while some conjuncts are locally governed, other conjuncts get Nom (Zaliznjak 2004: 157), cf. the example

(29), where the morphologically unambiguous form NOM.SG.F of the noun šapka is added after in the enumeration context including a preceding unambiguous form ACC.SG.F of the noun kobyla.

(xi) ...
$$v^0$$
... CASE<sub>i</sub> & CASE<sub>i</sub> .... & Nom<sub>EN</sub>

(29)**ONovR** vsalo gorončaro 2 soroka kunic-ju took potter.NOM.SG.M 2 sacks.ACC.DU marten-ACC.SG kobyl-u 3 kozh-i šapk-a mare-ACC.F. 3 leather-NOM/ACC.PL hat-NOM.SG.F sani xomut-y clamp-NOM/ACC.PL sledges.NOM/ACC.PL

> 'The potter took two sacks of martens, a mare, three leathers, a hat, sledges and a yoke.' (Birchbark letter no. 169).

A related construction dubbed the Nom of addition ( $Nom_{ADD}$ ) is realized after the connectors u,  $\partial a$  'and'.

(xii) ...
$$v^0$$
... CASE<sub>i</sub> .... and Nom<sub>ADD</sub>

Formula (xii) is illustrated by the ONovR example (29) dated to the 14<sup>th</sup>-15th centuries: the QP dva kleshcha 'two breams' for this period is preferably treated as having the old syncretic form of Acc, while shchuka 'pike' is a non-syncretic form of Nom.

169).

There is no independent evidence that Old Slavonic languages had coordinate phrases.

### 5.4.2. The nominative as rebranded accusative.

The prepositional nominative (Nom<sub>PREP</sub>) developed after the spreading of the new non-syncretic animate forms of Acc. The old syncretic Acc forms have been reanalyzed as Nom in the inclusive (30) and quantificational (31) constructions:

'to become a soldier', lit. 'to go into soldiers'.

(32) R Na tri mal'čik-a bol'še.
On three-NOM boy-COUNT more
'three boys more.'

Zaliznjak (1967/2002: 50) assumes that the noun in (31) gets a non-canonic inclusive m-case, while Mel'čuk (1995: 518, 539) claims that both constructions exemplify inanimate Acc, cf. also Yanko (2005) and Mikaelian (2013). The quantificational construction brings about a context where the prepositionally governed Acc alternates with unmarked Nom in the adjunct position:

(33) R na tr-ëx mal'čik-ov bol'še.
On three-ACC boy-GEN.SG more
'three boys more.'

### 5.4.3. The Nominative Object parameter and differential object marking.

A group of Old Slavonic languages and North Russian dialects license Nom in the object position (Nom<sub>OBJ</sub>). This feature is known as the Nominative Object parameter (Timberlake 1974; Woolford 2009; Seržant 2016). The infinitival construction with Nom<sub>OBJ</sub> conveys the meaning of external necessity or possibility.

ONovR vŭ volost-i tvoei toliko **vod-a piti**In parish-LOC your-LOC only **water-NOM.SG.F drink.INF**v gorodiščjąníx. (Birch bark letter from Old Russa no. 10, 1160-1180 A.D.)
'It is only possible to drink water in your parish Gorodišče.'

The modal construction INF —  $Nom_{OBJ}$  is licensed by the transitive verbs which assign  $Acc_{THEME}$  in the finite clauses. Moreover,  $Acc_{THEME}$  and  $Nom_{OBJ}$  alternate in infinitival clauses too. The distribution  $Nom_{OBJ} \sim Acc_{THEME}$  in the non-finite clauses patterns with *differential argument marking*, since the case forms are selected depending on such pragmatic factors as communicative status: non-contrastive objects tend to get  $Acc_{THEME}$ , while foci and contrastive topics tend to get  $Nom_{OBJ}$  (Zimmerling 2019).

# 5.4.4. The Nominative as default case and the predicate agreement.

Nom is the default case of the external argument in Slavonic finite clauses (TP) and the only controller of predicate agreement. Nominative objects do not control predicate agreement. The correlation between default Nom, predicate agreement and the [+ D] feature i.e. status of the determiner phrase is not straightforward. It has been claimed that Slavonic subject NPs in Nom always get the overt or covert [+ D] feature, while non-subject NPs may lack it (Lyutikova 2017). This analysis is not applicable to the idioms with the Nominative Object parameter, since

the assignment of  $Nom_{OBJ}$  does not depend on the inner structure of the infinitival complement. The latter can be expanded with [+ D] elements irrespective of the fact whether  $Nom_{OBJ}$  vs  $Acc_{THEME}$  is assigned (Zimmerling 2019).

#### 5.5. The dative in the infinitive clauses and PRO.

There are reasons to accept the claim that the zero subject of non-finite clauses, PRO, can be case-marked, whereby Slavonic PRO gets Dat by default (Moore, Perlmutter 2000). Even if this hypothesis is rejected, the status of Dat as default case can be confirmed for two occurrences of Dat in Slavonic non-finite clauses, notably — Dat on semipredicates (Dat<sub>SEMPR</sub>) and Dat on infinitival subjects (Dat<sub>SUB</sub>) (Franks 1995: 223; 270).

### 5.5.1. The dative case on semipredicates.

The support for the hypothesis on the case-marked PRO comes from the distribution of the semipredicates Pol *samemu*, *jednemu*, Russ *самому*, *одному* 'by oneself', 'alone' that take Dat in Polish and Modern East Slavonic infinitival clauses. The gender-and-number form of the semipredicate is inferred from the context, while agreement controller can take a non-argument position, cf. (35b).

```
(35)
            Pl a. Dzieck-o<sub>i</sub> /
                                    dziewczyn-ai
                                                                    jest
                    child-NOM.SG.N /
                                            girl-NOM.SG.F
                                                                   BE.PRS.3SG
                    za
                            mał-e<sub>i</sub> /
                                                    mał-ai,
                            small-NOM.SG.N /
                                                    small-NOM.SG.F
                    [InfP żeby PRO<sub>i</sub> zapiąć
                                                    płaszcz
                                                                      sam-emu<sub>i</sub> /
            sam-eji].
                    in.order.to
                                    button.INF
                                                    coat.ACC.SG.M oneself-DAT.SG.N / -
            DAT.SG.F.
```

'The child / the girl is too small to button the coat himself/herself.'

```
b. ważne jest dla mnie_{i}
important BE.PRS.3SG for 1SG.GEN
[InfP iść PRO_{i} sam-emu_{i}/ sam-ej_{i}].
go-INF oneself-DAT.SG.M / -DAT.SG.F.
'It is important for me to go myself.'
```

Ivan<sub>i</sub> / (36)R a. Kat-jai zna-et ne Ivan-NOM.SG.M Katja-NOM.SG.F NEG know-PRS.3SG. kak PRO<sub>i</sub> žiti odno-mui / odn- $oj_i$ ]. InfP How live-INF oneself-DAT.SG.M / -DAT.SG.F 'Ivan / Katja does not know how to live alone.'

```
b. ^{?}Vanin-a_{i}/ Katin-a_{i} privyčk-a Vanja. ADJ. POSS-NOM. SG. M Katja. ADJ. POSS-NOM. SG. F habit-NOM. SG. F ^{[InfP]} PRO_{i} žitj odno-mu_{i} / odn-oj_{i}]. ^{[InfP]} oneself-DAT. SG. M / -DAT. SG. F 'Vanja's / Kate's habit of living alone.'
```

Polish and Russian show remnant uses of  $Dat_{SEMPR}$  in the gerundival and participial clauses (Franks 1995: 265), while Slovak, BCS and Slovenian replace the non-controlled  $Dat_{SEMPR}$  with default  $Nom_{PRED}$ . The use of  $Dat_{SEMPR}$  in Polish and Russian is limited by the two items discussed above. Standard secondary predicates get  $Pred_{INSTR}$  in Russian infinitival clauses, or license the variation  $Pred_{INSTR} \sim Nom_{INSTR}$  in Polish.

### 5.5.2. Dative-Infinitive Structures and secondary predicates.

The assignment of default Dat is supported by the Common Slavonic construction with Dat marking on the overt subject of independent infinitival clauses (Dative-Infinitive Structures, DIS). DIS sentences are attested in OCS (Khodova 1980: 221 — 229), Old Bulgarian (Zlatanova 1990), Old Czech (Porák 1967: 20 — 31) and Old Russian (Borkovskij, Kuznetsov 1963: 391). DIS originally involved the assignment of Dat<sub>SPRED</sub> to the predicative complement in clauses with or without an overt Dat subject, cf. (36).

```
(37)
            OR
                    Luce žŭ
                                                             PRO<sub>i</sub> potjat-u<sub>i</sub>
                                                                                   byti],
                                                    [InfP
                   better CL.EMPH
                                           CL.OPT kill.PRT.PASS-DAT.SG.M BE-INF
            neže
                   InfP
                             PRO<sub>i</sub> polonen-u
                                                                   byti]. (Slovo, 11)
            than
                           capture.PRT.PASS-DAT.SG.M.
                                                                   BE-INF
            'It is better to be killed than to be captured.'
```

Polish has a limited number of DIS sentences (Franks 1995: 270), while in East Slavonic DIS sentences remain productive (Švedova 1982: 373—377; Zimmerling 2009). Russian replaces Dat<sub>SPRED</sub> on the secondary predicates with Instr<sub>PRED</sub>, but at the beginning of the 19th century Dat was licensed.

### 5.5.3. Dative as default case: summary.

Dat<sub>DIS</sub>, Dat<sub>SEMPR</sub> and the extinct use of Dat<sub>SPRED</sub> — are explained historically as consequences of the fact that the Slavonic PRO was case-marked and got Dat by default, while Dat<sub>DIS</sub>, Dat<sub>SEMPR</sub> and Dat<sub>SPRED</sub> got s-case from PRO through obligatory or arbitrary control. The picture in the present-day Slavonic idioms is obscured by the spreading of Pred<sub>INSTR</sub> and the decline of DIS in a number of languages. Therefore, the default forms of Dat<sub>DIS</sub> and Dat<sub>SEMPR</sub> can also be explained without recourse to the assumption on the case-marked PRO.

#### 6. Secondary Predication and the Instrumental/Nominative Variation

The alternative Case marking properties of secondary predicates between Instr and Nom have been observed in earlier studies. As Vinogradov admitted early on: 'The category of the instrumental case causes contemporary grammarians more unease than any other topic.' (Vinogradov 1972:142, our translation).

There was a highly controversial discussion in the 1990s in the generative framework of depictive secondary predicates or small clauses (SC) [reference to **Chapter 6 Small Clauses in Slavic in this book**]. This chapter is an alternative take on analyzing secondary predication and the choice between Nom and Instr assignment from a syntactic and semantic position of Radical Minimalism (Krivochen and Kosta 2013, Kosta 2019, Kosta 2020).

To mention but a few studies: some focused on the semantic properties of small clauses (cf. e.g. Steube 1994, Hentschel 2008), but most were concerned with their syntactic status (small clause vs. AP-, NP or VP-adjunction, cf. Stowell 1978, 1981, Williams 1984, Aarts 1992, Cardinaletti & Guasti 1995, Staudinger 1997 vs. Wilder 1994, Emonds 2007, Hentschel 2008) and/or their Case assignment properties (cf. Bailyn 1995, 2001, Bailyn & Citko 1999, Bowers 1997, 2001, Franks 1995, Strigin 2008, Bondaruk 2004, Bondaruk 2013ab, Pereltsvaig 2008).

In recent work on Russian and Slavonic syntax, depictive secondary predicates are mostly considered to be "non-sentential adjuncts on the predicate layer of the clause" (Schroeder, Hentschel, Boeder 2008: i).

Asya Pereltsvaig (2008) analyzes the Nom-Nom vs. Nom-Instr and explains the difference by the notion identity vs. property notion ascribing the Nom-Instr construction more structure, but without taking into account event semantics and differences of tense.

As opposed to adverbials, which modify the sentence or the VP, depictive secondary predicates modify the arguments (either the subjects or the objects). In fact, while adverbials are modifications of events (VP-adverbs) or propositions (sentence adverbs, cf. Kosta 2003a, 2003b), depictive predicates are modifications of arguments. There has been a highly controversial discussion in the 1990s in generative framework regarding generative description of depictive secondary predicates or small clauses (henceforth, SC). Only few studies also mention diachrony, for Slavonic to mention just a few Moser (1994), Hentschel (1993, 1994), Menzel (2008), Klemensiewicz (1926) and Timberlake (2014a).

SCs are structures, which have clausal characteristics in that they contain a subject phrase and a predicate phrase. They are, however, generally believed not to contain a complementizer position or an INFL-node (Aarts 1992).

The bracketed sequences in the S-Structure (38)—(40) are examples of SC:

He drank the tea

(38) R a. Ja sčitaju [ego pjanym].
I consider him<sub>ACC</sub> drunk<sub>INSTR</sub>
b. \*Ja sčitaju ego pjanyj.
I consider him<sub>ACC</sub> \*drunk<sub>NOM</sub>
c. \*Ja sčitaju ego pjanogo.
I consider him<sub>ACC</sub> \*drunk<sub>ACC</sub>
(39) R Ja sčitaju [ego durakom].
I consider him<sub>ACC</sub> (a) fool<sub>INSTR</sub>
(40) R On vypil [čaj xolodnym].

The Case assignment of the second complement must compulsorily be Instr; other choices are excluded. Rothstein has shown in her formal semantic approach that there is a correlation between the time span of Resultatives on one hand and Depictive on the other. This time span difference between the matrix and the embedded secondary predicate are in fact the reason to differentiate between those secondary predicates which only modify the subject of the matrix clause at the same running time, I call them in the following real Depictive on one hand, and those secondary predicates which are controlled by the object matrix predicate and where there is a time difference between the TPCONNECT relation of the event *e1* of the matrix predicate and the *e2* of the embedded secondary predicate. In the latter case, this time span difference is expressed in Russian with the Instrumental assigned to the second complement while the complement of the matrix clause is assigned a structural Case Nom or Acc (Acc is the Case assigned to the primary predicate by ECM verbs such as *sčitaju ego* 'I consider him....'). Rothstein considers the secondary predicates aspect modifiers. Secondary predication is thus nothing else than 'The denotation of the matrix verb and the secondary predicate' (Rothstein 2003, 551). In this regard, the TPCONNECT relation, where *e1* is TPCONNECTED to *e2* with

respect to the argument, is the same running time and share a grammatical argument y. About the semantics of Depictives vs Resultative, most work is done by formal semanticists like Rothstein and Filip, cf. References. But there is nothing mentioned in the purely syntactic generative approach by Bailyn and Nedeirega in this book [reference to Chapter 6 Small Clauses in Slavic in this book]. This is the reason why we decided to include this topic into our section and we will try to describe and to explain the division of labor between semantics of events and syntactic structure of Small Clauses and secondary predicates, i.e. the distribution of Instrumental (mostly with Stage level predicates such as to arrive, to return from) vs. Nominative (steady properties, Individual predicates such as the Zero copula of the verb to be in Russian in present tense: on otličnyj učitel vs on byl otličnym professorom, cf. 6.1. following).

The non-trivial question, which has until now not being considered when analyzing secondary predicates is their relation and division of labour between semantics and syntax (distribution of Theta-roles, Case assignment and Binding) which interests us most in this chapter. We shall try to demonstrate how the behaviour of their *Case Assignment and Agreement* within the Phase oriented approach of Radical Minimalism can be explained (cf. Krivochen & Kosta 2013; Kosta & Krivochen 2014).

### 6.1. Agree Nom and Instr Case in Russian secondary predicates

While saying only a few words on the semantic status of SC, we shall concentrate on the latter question, namely the behaviour of two syntactically crucial properties – the Agree and the Case assignment properties in Russian secondary predicate construction. Our analysis is based on a semantic opposition between predicates which designate a steady unchangeable event in which X is predicated to have a steady permanent feature. In this case, if the subject is assigned Nom by the matrix predicate, a syntactic relation between the matrix subject and the secondary predicate NP can be established modo AGREE relation. This is the typical situation described by Rothstein (2003). In this regard, the TPCONNECT relation, where *e1* is TPCONNECTED to *e2* with respect to the argument, is the same running time and they share a grammatical argument y. Between the matrix NP x and the secondary predicate NP y, the Case Nom is established as the agreeing Case. If, however, there is an aspectual difference between the event of the matrix predicate and the event of the secondary predicate which can be expressed e.g. by predicates which designate the transition from one state to the other (so-called inchoative or SLP predicates in the terminology of Kratzer 1995, cf. Kosta 2019, 2020) the default Case will be Instr. Cf. (41a) vs. (41b):

- (41) R a. Ona<sub>NOM</sub> prišla domoj **ustal-aja<sub>NOM</sub>** 
  - She<sub>NOM</sub> came home tired<sub>NOM</sub>
  - b. ONA<sub>NOM</sub> prišla domoj **ustal-oj<sub>INSTR</sub>** 
    - She<sub>NOM</sub> came home tired<sub>INSTR</sub>

### 6.2 Stage-level vs Individual-level predicates and Case Assignment in Russian

What is so peculiar about SLP vs. ILP predicates? 'Available' and 'standing on a chair' are typical SLP predicates. 'Altruistic' and 'having long arms' are typical ILP predicates: they characterize a property of an individual (i.e. a permanent notion, inherent to his character or quality as human etc.) (Kratzer 1995:125 passim). As pointed out in many recent works on the semantics of SLP vs ILP predicates, the distribution can be accompanied or even caused by grammaticality or semantic differences, as in Table 10.

	SLP	ILP
I.There-insertion	(42a) <b>There</b> are firemen available.	(42b) * <b>There</b> are firemen altruistic.
II. Bare Plurals	(43a) Firemen are available.  ✓ existential reading possible	(43b) Firemen are altruistic.  ❖ existential reading excluded
III.Absolute constructions	(44a) Standing on a chair, John can touch the ceiling.	(44b) Having unusually long arms, John can touch the ceiling.
	✓ ,if John stands on a chair, he can touch the ceiling.'	*'if John has unusually long arms, he can touch the ceiling.'

Table 10. Stage-level vs Individual-level predicates

If this analysis is on the right track, then we should be able to determine the difference by the lexical semantics of the class of verbs which are generally able to change state and those which cannot.

Thus, it seems that the Case assignment property and variation between Instr and Nom can be partly explained with *event semantics*, as has often been stressed in the literature but never been explained (cf. Steube 1994 Zhuravleva 2019). Strigin (2008) tries to derive all uses of secondary predicates (depictives) from one general meaning, leaving the rest to inference and context. We propose, by contrast, that the major difference in real depictives between Instr and Nom as cases which modify the subject of the matrix verb or in some cases the object of the matrix verb is that between *SLP and ILP predicates*. We can see this difference in sentence (42a), in which the subject is characterized individually in the present situation as being sad with Nom assignment vs. (42b) in which the status of becoming a hero has presumably not been a constant genetic characteristic. Instead, one's status as a hero is earned through some events which make one a hero after the fact.

(42) R a. On sidel grustnyj.

He<sub>NOM</sub> sat sad<sub>NOM</sub>

b. On vernulsja geroem<sub>INSTR</sub>.

He<sub>NOM</sub> returned a hero<sub>INSTR</sub>

Also in (42a), the secondary predicate of the matrix object in Acc is in an agreeing relation with the secondary predicate NP, and it is quite natural that the Acc must be assigned to the NP of the secondary predicate because the semantic property of the truck of being empty is the resultative state and not a change of situation. It only states that the truck is empty (individual resultative state). Thus (42a) is a typical example of a resultative secondary predicate in which the TPCONNECT relation, where e1 is TPCONNECTED to e2 with respect to the argument, is the same running time and share a grammatical argument y.

(42) R a. Snačala vzvešivajut mašinu **pustjuju**. (Resultative)

First they weigh the car<sub>ACC</sub> empty<sub>ACC</sub>

b. <sup>?</sup>Xolodnym ètot čaj nevkusnyj.

Cold (having become cold), this tea is not tasty

SLP predicate ILP predicate

Other functions of Instr, such as designating the s-case Instrument or other functions described in Strigin (2008), in Jakobson (1936) can be straightforwardly derived from one of the Instrument of the Instrument in (43) or Theta-role Agent in (44).

(43) Russ. Kamni im služat oporoj.

Stones to them serve (as) support (Instrument)

(44) Russ. Dom stroitsja inženerom.

House is being built (by) the engineer (Agent)

### 6.3. Event semantics and case checking.

Vita G. Markman (2008) "The Case of Predicates (Revisited): Predicate Instrumental in Russian and its Restrictions" adresses the syntax of copular constructions in Russian with special attention to the prohibition on the appearance of instrumental predicates in present-tense copular constructions and their obligatory presence in argument small clauses with null predicators. She argues that copular constructions with instrumental predicates involve an eventive Pred (following Adger and Ramchand 2003), which she calls "PredEv". Pred Ev introduces an event argument and checks instrumental case on the predicate. In contrast, constructions with nominative predicates involve a non-eventive Pred that has no Case to check. She further argues that the event argument introduced by PredEv must be licensed by Asp. The present-tense form of the Russian verb be (zero) lacks the relevant aspect features. Consequently, instrumental

mental predicates are impossible in present-tense copular constructions. In argument small clauses, on the other hand, the event argument is licensed by the Asp of the matrix verb, which makes instrumental predicates possible. Markman represents a welcome approach which tries to include event semantics and syntax.

We agree in principle with the semantic part of the analysis following (Adger and Ramchand 2003) but in this section enlarge and refine it within the theoretical approach of Radical Minimalism. The fact that unaccusative predicates such as to *arrive*, to come back also assign Instrumental to their complement in sentences like (45).

(45) Soldat<sub>NOM</sub> vernulsja iz vojny geroem<sub>INSTR</sub>

which means the Instr Case assignment is licensed, must be explained somehow. And it must be clear, that unaccusative verbs are not governed by a predicate of the matrix clause because there is no matrix clause available. Since the work on anti-causatives and unaccusatives vs Causatives and Unergatives (cf. Kosta 2010, 2011, 2015) it is clear that the anti-causatives and unaccusatives both do not have a base-generated external argument. Rather, the external argument has been derived by Internal Merge (Move) of the internal object argument to the specifier of a VP in which the head  $V^0$  does not license direct objects (they are intransitives) and so the unaccusative verb must move to a higher target position which must be the head of a phrase in which the feature for changing state [+ state change = +inchoative] are. For Case filter violation, the sole internal argument must move from its base-generated position to obey Case Filter and to ensure Case assignment. Since unaccusatives are per definition verbs which are unable to assign the Case accusative to their internal argument, the argument must move to a higher Spec position, in the end SpecTP to receive NOM case via agreement with  $T^0$ . By doing this, the NP soldat receives Case NOM.

But where does the Instrumental on the secondary predicative noun *geroem*<sub>INSTR</sub> come from?

We assume that the idea that present copula (be) cannot assign Case Instrumental is on the right track. Cf. \*Soldat geroem\_INSTR...

The present copula cannot assign the Case Instr to its complement since it is a relational verb which projects the NOM case from the antecedent, thus

Soldat<sub>NOM</sub> (copula) geroj<sub>NOM</sub>. And a stage level predicate can be assigned only and only Instrumental, given \*Soldat vernulsja geroj<sub>NOM</sub>.

We must explain the Case assignment restrictions not only within a syntactic acceptable model minimalistically, but we must also explain why the assignment must go exactly in this way and not in another.

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The same situation like with dynamic unaccusative verbs is to be expected with transitive verbs which are dynamic stage level predicates because they show the change of a cognitive state of mind. Maybe the general has not considered the soldier a hero before he went to the war and made something by which he became a hero, thus in Γεμεραλ<sub>NOM</sub> συμπαλ σολθαπα εεροεμ<sub>INSTR</sub> the assignment of Instr to the compliment of the verb consider is predicted. Nominative is excluded because of the SLPP which serves as minimal barrier (modo Rizzi 1990) for Nominative agreement Case assignment and Accusative is blocked because the complement argument of the verb has been assigned Accusative already, in a position (most probably SpecAspP) which is already filled with condama.

The mechanism of the Case assignment Instr vs Nom as a phenomenon of syntax must be explained with the theory of feature checking on heads or specifiers which have to be targeted in a probe-goal relation domain and checked. Since the present copula of *to be* is in fact a state or existential verb, it should be a part of an individual level projection with the feature [-change of state]. Contrary to this class of predicates, dynamic unaccusatives just like inchoative transitive verbs\* have to move to a Stage Level Phrase where they check the feature [+inchoative] on the head of the SLPP. Changes of state predicates are by definition perfective, thus the feature [+change of state] opens up a gate to the next Phase above the SLLP which is the AspP or light vP. The head of the SLPP, SLP<sup>0</sup> must then move to the upper head of AspP Asp<sup>0</sup> for two reasons: a) to check the feature [+pf] against the head of the Asp<sup>0</sup>, b) to assign the Case Instrumental to the SpecSLPP, cf. (45)

(45) Soldat<sub>NOM</sub> vernulsja iz vojny geroem<sub>INSTR</sub>

FIGURE 1: THE MAPPING OF SYNTAX OF CASE INSTRUMENTAL ONTO EVENT STRUCTURE

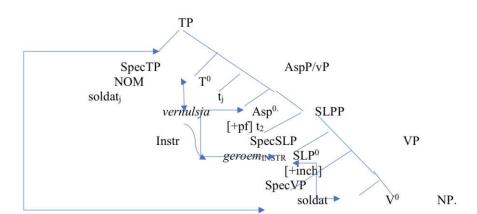


Figure: The Mapping of Syntax of Case onto Event Structure

This Case assignment mechanism explains not only 1) why stage level predicates (SLP) and only stage level predicates receive Instr and no other case (e.g. Nom or Acc) and why 2) individual level predicates (ILP) and resultative SC assign an agreement Case Nom, or sometimes (e.g. in Polish or Czech) Acc.

(46) a. Petr<sub>NOM</sub> měl ruku<sub>ACC</sub> zavázanou <sub>ACC</sub>

Peter<sub>NOM</sub> had arm<sub>ACC</sub> bandeged<sub>PPPACC</sub>

"Peter had an arm bandaged"

b. Pavel<sub>NOM</sub> dostal oběd ACC uvařený ACC

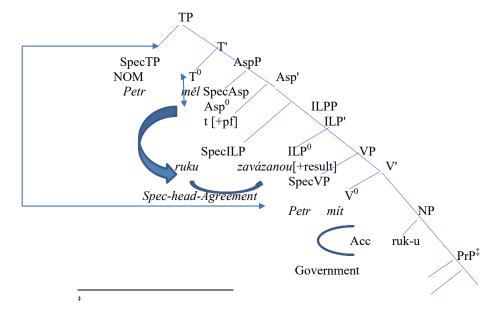
Paul<sub>NOM</sub> received lunch<sub>ACC</sub> cooked<sub>ACC</sub>

"Pavel got the lunch cooked"

The Nom in (46ab) is assigned by AGREE from the upper subject percolating the Case through a ILPP and assigning the NOM to the specILPP. The Acc is assigned by Government from the transitive verb in T<sup>0</sup> (just like with ECM verbs) to the SpecAspP (which is resultative perfect secondary predicate reading). The assumption that the predicative phrase (= small clause) and the lexical VP have the same subject argument and the same object arguments with the predicate *to have* is justified by logical connection between two predications (in terms of predication theory). On the derivation phase of SC no functional feature such as Case or Agree (phi-features) can be checked. It is a purely logical-semantic level. Thus, the accusative case can be assigned to the

compliment of the lexical verb traditionally (Chomsky LGB 1981) as government relation between the lexical head  $V^0$  or minimalistically (Chomsky 1995) at the level of the ILPP in the specifier position; in any case, there must be a Case transmission chain between the lower lexical VP and the ILPP established: the participle PPP  $zav\acute{a}zan$ - receives its Case ACC via Spechead Agree relation between the Noun ruku (in SpecILP) and in the head ILP $^0$   $zav\acute{a}zanou$  [+result].

FIGURE 2: THE MAPPING OF SYNTAX OF CASE ACCUSATIVE ONTO EVENT STRUCTURE



PRO<sub>i</sub> NP zavázan- ruk-

The choice of the case for the predicate noun in secondary-predictive constructions depends on the respective verbal class and event semantics of the secondary predicates. The instrumental is assigned to so-called stage level predicates and the nominative to all other constructions. The present zero copula of the verb forms an agree relation to the subject of the matrix sentence, so that an agree relation with respect to case is established between the subject in the nominative and the secondary predicate noun.

## 7.Summary.

The general case theory was at the beginning of our overview. We have compared various influential models of case grammar, including Roman Jakobson's general case theory, localistic case theories and especially the semantic case grammar by Charles Fillmore. The theory was not the center of the presentation, but the basis of comparison, the tertium comparationis and the model that was supposed to stimulate and objectify the language comparison. The analysis focused on the synthetic and analytical case systems under a comparative approach and on and between the different case systems, ranging from synthetic case-assigning languages (most Slavic languages) as well as some agglutinating languages such as Turkish or Japanese. In the subsequent sections, we argued that Slavonic languages show a non-trivial correlation of purely morphological aspects of case (m-case) and syntactic mechanisms of the case assignment (s-case). This correlation must be interpreted in terms of Case grammars and Case hierarchies explaining the choice of the case forms. The evolution of the case systems in the Slavonic languages is partly triggered by such factors as case syncretism, development of the morphological category of animacy and grammaticalization of the negative polarity effects. The combination of Gen with the negation and the non-uniform case marking on the predicative complement by a number of oblique cases including Instr are attested already in the early Slavonic period. However, the present-day Gen<sub>NEG</sub> and Instr<sub>PRED</sub> constructions in a group of Slavonic languages including Russian and Polish result from relatively recent processes which restrict the use of the non-lexical adverbal Gen with the negative clauses and eliminate the oblique case forms other than Instr in most syntactic configurations with the predicative complement. The variation Gen<sub>NEG</sub> ~ ACC<sub>NEG</sub> in the object position is triggered by a combination of purely syntactic and information-structural factors. The variation Instr<sub>PRED</sub> ~ Nom<sub>PRED</sub> seems to be triggered by the event semantics, notably the distinction of the stage-level predicates (SLP) vs individual-level predicates (ILP), although the distribution of these case forms in different groups of texts exemplifying the usage of different epochs can be explained on a separate basis. These facts give rise to the competing accounts of the secondary predication and the small clause issues, which have been extensively discussed in the Slavonic linguistics. The Nom as the case form assigned in the external argument position and in some non-argument (the Nom of enumeration, the Nom of addition etc.) and argument positions (the Nom of the adverbal object, the Nom of the infinitival complement etc.) has a special status in the Slavonic case systems. This fact has been captured already in the classical historical accounts by Potebnja

(1874), Miklosich (1883) and Popov (1881), who claimed that the Slavonic Nom has no particular case assigner. In the recent time, it was rediscovered in the versions of the

configurational case theories advancing the notions of the unmarked and the default case. The use of the non-lexical Dat in the Slavonic non-finite clauses mirrors the use of the default case form of Nom in the Slavonic finite clauses, with the proviso that the default Dat if this case form is acknowledged is assigned not to the overt but to the silent argument of the Slavonic non-finite clauses.

The data from the Slavonic languages have stimulated the development of different Case grammars which made a valuable contribution to general and Slavonic linguistics. In Section 6, we compared the existing accounts of the distribution of Instr<sub>PRED</sub> and Nom (or Acc) in Russian, Polish and Czech with our own approach. It seems to us to have advantages over the purely syntactical approaches e.g. (Bailyn & Citko 1999, Pereltsvaig 2008) in that it explains the alternation of Instr vs. Nom as caused by semantic factors. The individual-level predicates rather assign Nom, while the stage-level predicates (*arrive*, *become*) assign Instr. This also explains why unaccusatives as dynamic inchoative verbs (*arrive*) always assign Instr. In the section on secondary predication, we explain the fact that the present tense forms of the copula *byt* 'to be' never assign Instr in the meaning of relation and state, while the same verb in its temporal embedding as a past tense or a future tense marker undergoes a restructuring as a stage-level predicate and not only licenses Instr but excludes Nom in the contexts like *on stal*, *on byl*/ *on budet inženerom* // \*on stal/budet/byl inžener.

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