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On Subjects and Predicates in Russian

by

Alona Soschen

**Submitted to the Department of Linguistics in partial fulfillment of the requirements for
the Degree of Doctor of Philosophy in Linguistics**

Abstract

The present dissertation under the title On Subjects and Predicates in Russian discusses relevant linguistic theories in connection with subject positions and predication relations, and presents some issues that have not, in my view, been addressed in the linguistic literature so far. I offer a new approach to sentential structure in light of the most recent developments within the framework of Chomsky's Minimalist Program (Chomsky, 1993, 1995, 2001a, 2001b). The aim of this dissertation is to integrate the cognitively based lexical semantics approach and the formal analyses with relation to philosophy and logic of language. This study employs case theory and predication theory in a way of relating semantic components to formal syntactic descriptions. The thesis has the following structure:

Chapter I. Russian Impersonal Sentences

Chapter II. Pron in Russian and Hebrew, and *SER/ ESTAR* in Spanish

Chapter III. On Small Clauses and Predication

Chapter IV. On Reflexivity, Passivization, and Case Assignment

Chapter V. A Minimalist Approach to Subjects and Predicates

Subjectless sentences are not uncommon in Russian. Whether verbs appear in a sentence with or without their subjects varies considerably across languages; yet, subjects

are always represented by a set of properties that can be defined from the point of view of their semantic roles. In the first Chapter of this dissertation I analyze Russian verbs that appear in impersonal constructions, with an emphasis on the 'Adversity impersonal' (Babby, 1993) structure of the kind *Lodku uneslo volnoj* (the boat was carried away by the tide). Null subjects deserve special attention, to answer the question of how these (empty) elements are interpreted by the conceptual system.

In connection with which, I argue for the existence of two subject positions in Russian VPs of resultative types, which parallels and is a direct extension of Chomsky's (1995) idea concerning a double subject position. To support my view, I introduce a new definition of direct and indirect agents, and explore the way of treating them from the point of view of their participation in the event as primary and secondary causers. In Russian Adversity-impersonal sentences, out of the two subjects positions, the position of *pro* is that of the indirect agent (causer of event). Russian impersonal verbs with Accusative and Dative logical subjects are regarded as having a covert *pro* on their argument grid as well. *Pro* is also an expression of the exclusion function, in that no other element may appear in its position.

The differences in formation of related personal, impersonal, and unacusative structures of verbs with the same core meaning can be explained depending on the manner in which semantic structures are projected into syntax. This approach corresponds to Pustejovsky's (1991) treatment of resultative structures. It also implies that Nominative, Instrumental, Dative, and Accusative Case can be predicted in certain semantic configurations. A detailed analysis of resultative structures thus helps establish a connection between semantic properties and the syntactic realization of Case.

In order to proceed to the analysis of two subject positions in a sentence (Chapter II), I argue for the existence of the marker of Agr in modern Russian (N(ull)-Pron(oun)). According to this approach, Agr has content in certain languages. N-Pron in Russian in general corresponds to the pronominal copula (Pron) in Hebrew. The presence vs. absence of N-Pron in Russian and Pron in Hebrew is in agreement with the semantic

individual vs. stage-level distinction of adjectival predicates, which are reanalyzed in this thesis as the meanings of unsaturated functions that may require a particular ('relativizing') argument. Predicates appear as linked to two functional heads Agr and T, which in their turn are associated with the features Generic and Specific.

As a conclusion, this Chapter offers a unifying analysis of sentences with copular elements and two types of predicates that appear alongside these copulas in Russian, Hebrew, and Spanish. The roles of Pron in Hebrew, N-Pron in Russian, and *SER/ ESTAR* in Spanish are thus made explicit.

Chapter III deals with the formation of Small Clauses (SC) in Russian and English as a continuation of a longstanding discussion concerning the syntax and semantics of SCs. I revise recent approaches to predication within SC, and develop certain points presented in Chapter I against the analysis according to which Instrumental Case is assigned to (secondary) predicates by a functional category Pred in Russian (Bailyn & Rubin, 1991). The conclusions in this Chapter are drawn following Chomsky's (2001a) suggestion that predication can be viewed as an operation of a direct Merge on two syntactic elements. It follows that Case is assigned to the secondary predicates in question either by concord (Nominative) or by the verb (Instrumental).

The following part of this research explores the ways predication relations are established within NPs modified by adjectives; the issue that has not, to my knowledge, been addressed before. Predication is reanalyzed as the set of ordered functions, where not only their number but also their direction is of importance. This Chapter also draws a parallel between Focus in NPs and the way predication is established within SCs.

To continue the analysis of the semantic component of transitive verbs, Chapter IV offers a comparative survey of Russian SJA-inflected verbs and Romance verbs with reflexive clitics. Slavic and Romance reflexive clitics are extensively used in impersonal sentences (M.-L. Rivero, 2002, 2001, 2000). The role of SJA-inflection is similar to that of reflexive cliticization. I will suggest a new approach to reflexive verbs, which is aimed

at reconciling two major theories (the ‘unaccusativity’ and the ‘reflexive reduction’ analyses). The semantic difference between SJA-suffixed verbs and verbs with reflexive objects is established by applying Chierchia’s (1989) *De Se* and *De Re* treatment of verbs with reflexive objects. In connection with SJA-suffixation of Russian verbs and their subsequent lack of transitivity, middle formation and passive formation are reanalyzed from the point of view of their sub-event structure. To establish the semantic context in which resultative structures might apply I discuss cognate objects, and show which of them are to be considered true objects.

Chapter V concludes this thesis with the extended summary of some major points of the preceding argumentation. To promote the discussion of expletive elements in Russian started in Chapter I, I postulate the existence of *pro* (*expl*) in existential sentences. The Definiteness Restriction (DR) effects show that the expletive has a categorial feature ‘specific’ both in English and in Russian. In Russian, in contrast with English, the EPP feature can be checked not only by NPs, but also by PPs, in which case DR effects are absent. The Chapter also addresses the issue of agreement, and presents some ideas concerning Genericity and Specificity feature checking. I assume that Genericity is associated with Agr and Specificity with T positions. Checking of Genericity Feature (GF) of Agr and Specificity Feature (SF) of Tense accounts for the individual- and stage-level distinction of predicates.

It is tentatively suggested that the sentential structure with two subject positions in Russian is in fact the projection of a verbal lexical (micro-) structure. Lexical arguments are assessed from the point of view of their ability to either cause an event/ state or to undergo a change caused by the event (as in Chapters I and III). Thus, no additional semantic role labeling is needed, and the distinction between true arguments and other (optional) arguments is made clear.

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In these difficult times, when we are all deeply saddened by the recent terrorist actions that have changed our lives forever, when we are all praying for the survivors, victims, and their families, in the hope that the horror of September the 11th will never happen again -

- in these times, who knows better than a linguist that people from every race, every religion, and practically every part of the world, with different beliefs and backgrounds, people who speak different languages and yet understand each other because they are willing to, can work together to promote knowledge and peace, and to present a model of cooperation and tolerance to the world.

One of the major reasons I am a linguist is that I believe we can make a change – through our efforts, hard work, and the unprejudiced research that knows no boundaries, limited only by the extent of our cognitive ability. It is a great honor to be a linguist and a researcher – and this is the opportunity to acknowledge the people who have made it possible for me.

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CHAPTER I. Russian Impersonal Sentences

1.1 Introduction

The range of impersonal constructions in Russian is vast, although they all share lack of a Nominative agent. This Chapter is an attempt to establish the criteria for a lexical range of some Russian verbs that appear in impersonal constructions, with a focus on Adversity-impersonal sentences (A-Is) such as in (1). The name ‘Adversity-impersonal’ reflects the idea that the object is adversely affected in some way.

- (1) *Lodku uneslo volnoj.*
boat-Acc. carry-away-sg.neut.Past tide-Instr.
‘The boat was carried away by the tide.’

In the linguistic literature A-Is are analyzed as either a special subtype of the common agent-patient-instrument pattern with a phonetically null natural-force subject (Mel’cuk, 1974, Sal’nikov, 1977), or as impersonal passives derived from the corresponding active Adversity-personal sentences (A-Ps) (Mrazek, 1964, Xodova, 1958). I support Leonard H. Babby’s position that A-Is are not passive variants of A-Ps (Babby, 1993).

After a brief overview of four major types of impersonal sentences in Russian (Absolute, Accusative, Dative, and Adversity-impersonal), I will argue for the existence of two subject positions in Adversity-impersonal constructions verbs, one of which is occupied by *pro* carrying phi-features (number, gender), while the other is reserved for an Instrumental subject. This suggestion is an extension of the proposal concerning two subject positions in a sentence (Pollock, 1989, Chomsky, 1995), which will be developed further in Chapter II.

I offer a new approach to A-Is and A-Ps, introducing a notion of two (indirect and direct) subjects. The indirect (volitional) subjects are distinguished from the direct (non-volitional) ones as Possessors of Personal Willpower (+PPWs vs. –PPWs).

The analysis presented here is in contrast with Babby's (1993) suggestion that both Adversity-impersonal and Adversity-personal sentences are derived from one and the same argument structure, in which the external agent is optionally selected. According to Babby, the Instrumental subject of Adversity-impersonal sentences such as (1) corresponds to the Nominative subject of the sentences which Babby calls Adversity-personal (2).

- (2) Volna unesla lodku.
 tide-Nom.-sg.fem. carry-away-sg.fem.Past boat-Acc.
 'The tide carried away the boat.'

What I instead propose is that these are two different (direct and indirect) subjects. In order to support this idea, I discuss certain differences and similarities in the formation of verbs that appear in A-I sentences and their intransitive variants marked by a reflexive suffix SJA (e.g. in *Lodka razbilaŝ' (SJA-fem.g.) o kamni* – The boat broke-against the rocks).

The manner in which semantic structures are projected into syntax provides an explanation for the formation of both Adversity-impersonal and unaccusative types of sentences (following Chierchia, 1989, Pustejovsky, 1991, 1995, Hale & Keyser, 1993, Levin & Rappaport Hovav 1995, 1996).

In addition, the analysis presented in this Chapter helps establish a connection between semantic properties and the syntactic realization of Case. I will suggest that Instrumental Case can be predicted in certain semantic configurations. For example, the position of a - PPW subject always implies Instrumental Case in Adversity-impersonal sentences, and Dative Case in impersonal sentences with Dative subjects.

1.2 Russian Impersonal sentences

Impersonal sentences in Russian range from Absolute, Accusative, and Dative, to Adversity impersonal sentences. Sentences of the Absolute type, as in (3 a-c), usually denote natural phenomena events. In these sentences neither an agent nor a patient are selected and, in contrast with the English impersonal sentences, there is no explicit (pleonastic/ NP) subject:

(3)a. (*Eto/ * utro) rassvetaet.
it morning dawn-3d.sg.Pres.
'It is dawning.'

b. (*Eto/ *večer) temneet .
it evening get-dark-3d.sg.Pres.
'It is getting dark '

c. (*Eto/ *dožd') morosit.
it rain drizzle-3d.sg.Pres.
'It is drizzling.'

In both Accusative and Dative impersonal sentences the event is understood as internal with regard to the participant (patient). For example, in sentence (4) the Accusative patient is *menja* (me-Acc.). In sentences of this type, the Accusative (logical) subject is obligatorily present.

(4) *(Menja) tošnit i znobit.
me-Acc. nauseate-3d.sg.Pres. and have-fever-3d.sg.Pres.
'I am nauseous and feverish.'

By contrast, the Dative logical subject is optional in (5 a). In case it is absent, the position is as a rule occupied by a locative PP (*na ulice* – ‘in the street’ in (5 b)).

(5)a. (Mne) xolodno.

me-Dat. cold

‘I feel cold.’

b. (Na ulice) xolodno.

in street cold

‘It is cold outside (in the street).’

Russian verbs used in A-Is such as (1) mostly denote physical events that adversely affect human beings or objects (e.g. *razbit’* - break, *vybrosit’* - throw away, *pereexat’* - run over etc.). A-Is differ from other impersonal sentence types in that a causing Instrumental element of A-Is *volnoj-tide-Instr.* in (1) is optional (vs. obligatorily absent in Absolute sentences).

In the following parts of this thesis I will show that a unified analysis of impersonal structures supports the view according to which all impersonal verbs in Russian have an implicit subject *pro* (in agreement with Franks, 1995, among others). The approach based on a double subject position idea continues the discussion whether Dative arguments of impersonal Russian sentences are subjects or objects (Schoorlemmer, 1994, Moore & Perlmutter, 2000).

1.3 Major approaches to Adversity-impersonal sentences

This part will concentrate on three major approaches that have been undertaken in the linguistic literature, in an attempt to account for the formal and semantic properties of Adversity-impersonal sentences.

According to one of the theories (Mel'čuk, 1974, Sal'nikov, 1977), all A-Is have a phonetically null natural-force subject. Thus, A-Is are a special subtype of the agent-patient-instrument sentence pattern, the only difference being that the subject NP is headed by a phonologically null neuter third person singular noun denoting an unknown natural force that employs the Inst. NP as its instrument.

Babby (1993) argues that the 'unknown force' is identified by the Inst. NP itself in those A-Is that involve a natural force, while in A-Is that do not (involve a natural force) the event is understood as being brought about by the instrument itself, and not by some force using the instrument. For instance, following Babby, the only acceptable 'force' is *sudoroga* (cramp) and not *xolodnaja voda* (cold water) in (6).

- (6)a. *Nogu svelo sudorogoj/ *xolodnoj vodoj.*
 leg-Acc. seize-Neut. cramp-Instr./ cold-Instr. water-Instr.
 'The leg was seized with cramp.'

- b. *Sudoroga svela nogu.*
 cramp-fem.Nom. seized-fem.Past leg-Acc.
 'The leg was seized with cramp.'

If we accept Babby's suggestion that the semantic roles of NP *sudoroga* (cramp) in (6 a) and in (6 b) are identical, it is not clear what causes the redundancy of expression both by means of A-I in (6 a) and by what is identified in this Chapter as a regular agentival sentence in (6 b).

In addition, we have to account for the fact that instruments such as *veter* (wind-Instr.) in A-I (7 a) easily become subjects (7 b).

- (7)a. *Dom razrušilo vetrom.*
 house-Acc. destroyed-neut.Past wind-Instr.
 'The house was destroyed by the wind.'

b. Veter razrušil dom.
 wind-masc.Nom. destroyed-masc.Past house-Acc.
 'The wind destroyed the house.'

As a rule, instruments are controlled and thus cannot appear as subjects (8); however, there are cases where the instrument is perceived as a regular subject (9).

(8)*Ručka napisala pis'mo.
 pen-Nom. write-Past letter-Acc.
 'The pen wrote the letter.'

(9) Ego ruka nezno tronula ejo volosy.
 his hand-Nom. tenderly touch-Past her hair.
 'His hand tenderly touched her hair.'

In contrast, instruments of Adversity-impersonal sentences can always appear as agents. In (1) and (2), repeated here as (10) and (11), the NP *volna* (tide) can be both an instrument (10) and an agent (11).

(10) Lodku uneslo volnoj.
 boat-Acc. carry-away-sg.neut.Past tide-Instr.
 'The boat was carried away by the tide.'

(11) Volna unesla lodku.
 tide-Nom.-sg.fem. carry-away-sg.fem.Past boat-Acc.
 'The tide carried away the boat.'

It will be shown in this Chapter that semantic roles of Instrumental subjects of A-Is and Nominative subjects of corresponding personal sentences can be identified as carrying two different sets of semantic features.

A second hypothesis (Mrazek, 1964, Xodova, 1958), which views A-Is as impersonal passives of corresponding A-Ps, runs into certain problems. There are similarities between regular active and passive pairs and A-I / A-P pairs: both are formed from transitive verbs that denote activities and both have an optional Instrumental NP. It might be argued, however, that A-I / A-P pairs occasionally allow intransitive verbs, as in (12 a) and (12 b):

- (12)a. V auditorii zašumelo, zašuršalo gazetami,
 in auditorium make-noise-neut.Past rustle-neut.Past. newspapers-Instr.
 zatopalo, zadvigalo stul'jami.
 stamp-feet-neut.Past move-neut.Past chairs-Instr.
 (lit.) 'In the auditorium it made noise, rustled the newspapers, stamped the feet,
 moved chairs.'
 'They made noise, rustled the newspapers, stamped their feet and moved chairs
 in the auditorium'.

- b. V auditorii studenty zašumeli, zašuršali
 in auditorium students-Nom.pl. make-noise-pl.Past rustle-pl.Past.
 gazetami, zatopali, zadvigali stul'jami.
 newspapers-Instr. stamp-feet-pl.Past move-pl.Past chairs-Instr.
 'The students made noise, rustled the newspapers, stamped their feet, and
 moved chairs in the auditorium.'

Secondly, there is no passive morphology in A-Is. Passive forms cannot be formed by means of a copular verb *bylo* (*byt'*-neut.Past - be). The examples (13) and (14) are passive variants one would expect of A-Is in (15) and (16), respectively.

(13)*Dom bylo razrušeno vetrom.
house-Nom. was-neut.Past destroyed-neut. wind-Instr.
'The house was destroyed by the wind.'

(14)*Lodka bylo uneseno volnoj.
boat-Nom. was-neut. carried-away-neut. tide-Instr.
'The boat was carried away by the tide.'

(15) Dom razrušilo vetrom.
house-Acc. destroyed-neut.Past wind-Instr.
'The house was destroyed by the wind.'

(16) Lodku uneslo volnoj.
boat-Acc. carry-away-neut.Past tide-Instr.
'The boat was carried away by the tide.'

In order to further support the claim that A-Is are not derived by the lexical rule of passivization from the initial argument structure underlying A-Ps, I will briefly review the semantic and morphosyntactic peculiarities associated with passive formation.

Passive constructions in Russian can be formed either by adding a suffix SJA to the verb (Imperfective), or by means of a copular verb and a passive participle (Perfective). Practically any Nominative NP subject can appear in the Instrumental in a passive sentence regardless of its semantic characteristics. Example (17 b) is a passive variant of (17 a); (18 b) of (18 a).

(17)a. Arxitektory obsudili plan.
architects-Nom. discussed-pl.Past. draft-Acc.
'The architects discussed the draft.'

b. Plan byl obsužďjon arxitekturami.
 draft-masc.sg.Nom. was-masc.sg discussed-Part. architects-Instr.
 'The draft was discussed by the architects.'

(18)a. Sobaka ukusila učenika.
 dog-Nom. bit-sg.Pres. pupil-Instr.
 'The dog bit the pupil.'

b. Učenik byl ukušen sobakoj.
 pupil-masc.sg.Nom. was-masc.sg.Nom bitten-Part. dog-Instr.
 'The pupil was bitten by the dog.'

By contrast with (18), A-I example in (19) cannot be analyzed as a passive variant of a corresponding A-P (20). The NP *sobaka* (dog) can appear as an agent in (20) only.

(19) *Parket poportilo/ bylo poporčeno sobakoj.
 parquet-Acc. spoil-neut.sg.Past was-neut.sg.Past spoiled-Part. dog-Instr.
 (lit.) 'It spoiled the parquet by the dog.'

(20) Sobaka poportila parket.
 dog-fem.Nom. spoil-fem.sg.Past parquet
 'The dog spoiled the parquet.'

Passive formation is ruled out in A-Is. Example (21 b) is a regular passive variant of (21 a); if (21 c) were a passive variant as well, we would have to account for the redundancy of expression.

- (21)a. Čto-to tjažoloe udarilo voditelja
something-neut.sg.Nom. heavy-neut.sg.Nom. hit-neut.sg.Past driver-Acc.
‘Something heavy hit the driver.’
- b. Voditel’ byl udaren čem-to tjažolym.
driver-masc.sg.Nom. was-masc.sg.Past hit-Part. something-Instr. heavy-Instr.
‘The driver was hit by something heavy.’
- c. Voditelja udarilo čem-to tjažolym.
driver-Acc. hit-neut.sg.Past. something-Instr. heavy-Instr.
‘The driver was hit by something heavy.’

Furthermore, the Instrumental phrase is obligatorily absent in sentences with SJA-affixed ‘adversity’ verbs, the form one would expect to find according to the rules of Passive formation of the Present. The example of a regular Present passive is given in (22). The fact that (23 a) cannot be derived from (23 b) provides strong evidence that Passive sentences are not derived by the lexical rule of passivization from the initial argument structure underlying A-Ps.

- (22). Plan obsuždaetSJA arxitektorami.
draft-sg.Nom. discuss-SJA-Pass.Pres. architects-Instr.
‘The draft is discussed by the architects.’

- (23)a. *Voditel’ udarjaetsja kamnem.
driver-sg.Nom. hit-SJA-sg.Pres. stone-Instr.
lit. ‘The driver hits by the stone.’

b. Kamen' udarjaet voditelja.
stone-sg.Nom. hit-sg.Pres. driver-Acc.
'The stone hits the driver.'

To summarize, I have shown in this part that the analysis of Adversity-impersonal sentences as a passive variant of Adversity-personal sentences is problematic.

1.4 Instrumental subjects of Adversity-impersonal sentences

According to Hypothesis III (Babby, 1993), Adversity sentences come in pairs that have the same set of theta-roles realized differently at the morphosyntactic level. When the argument that appears in the Instrumental in A-Is is externalized, the sentence looks like the ordinary active transitive sentence. These sentences are referred to as 'demiactive'. Then demiactive sentences corresponding to Adversity-impersonals (24 a, b) will have the forms of (25 a, b), accordingly.

(24)a. Lodku uneslo volnoj.
boat-Acc. carry-away-sg.neut.Past tide-Instr.
'The boat was carried away by the tide.'

b. Pešexoda pereexalo gruzovikom.
pedestrian-Acc. run-over-sg.neut.Past truck-Instr.
'The pedestrian was run over by the truck.'

(25)a. Volna unesla lodku.
tide-fem.Nom. carry-away-fem.Past boat-Acc.
'The tide carried the boat away.'

b. Gruzovik pereexal pešexoda.
truck-masc.Nom. run-over-masc.Past pedestrian-Acc.
‘The truck ran the pedestrian over.’

“Transitive verbs that normally denote a physical event can occur in the real world either with or without the participation of a human agent” (Babby, 1993). Following this assumption, the argument structure of the verbs that appear in A-P/ A-I constructions is represented as having an optional external agent role.

The analysis presented here shows that definition of the Instrumental agent excluded from A-I-sentences is broader than contemplated by Babby, and relates to what might be called ‘a possessor of personal/ independent willpower’ (PPW). Babby analyzes characteristic semantic properties of the nouns marked by the Instrumental in A-Is, and concludes that they can be neither a human agent nor a controlled instrument.

PPW is a category the defining characteristic of which is causing another entity to perform an action. It can apply not only to humans, but also to animals, as well as to the objects that are inanimate in nature but self-controlled. Such objects are, for example, mechanical appliances capable of performing independent actions (e.g. incubators and robots). Examples of +PPW Nominative subjects are given in (26 a) and (27 a). Instrumental subjects of A-Is appear as lacking the PPW feature; thus, the NPs *sobakoj* (dog-Instr.) and *robotami* (robots-Instr.) are excluded in (26 b) and (27 b).

(26)a. Syrost’/ sobaka poportila parket.
dampness-fem.Nom./ dog-fem.Nom. spoil-fem.Past parquet
‘Dampness/ the dog spoiled the parquet.’

b. Parket poportilo syrost’u/ *sobakoj.
parquet-masc.Nom. spoil-neut.sg.Past dampness-fem.Instr./ dog-fem.Instr.
(lit.) ‘It spoiled the parquet by dampness/ by the dog.’
‘The parquet was spoiled by dampness/ by the dog.’

(27)a. Uragany/ roboty razrušili laboratoriju.
 storms-pl.Nom./ robots-pl.Nom. destroy-pl.Past laboratory-Acc.
 'The storm/ the robots destroyed the laboratory.'

b. Laboratoriju razrušilo uraganami/ *robotami.
 laboratory-Acc. destroy-neut.sg.Past storms-pl.Instr./robots-pl.Instr.
 (lit.) 'It destroyed the laboratory by the storm/ the robots.'
 'The laboratory was destroyed by the storm/ by the robots.'

As (26) and (27) show, Instrumental NPs in A-Is cannot be associated with an agent theta-role in corresponding personal sentences. The Instrumental argument's theta-role always excludes a 'possessor of personal willpower' (volitional) component when the agent is perceived as 'direct' in the chain of events. Instrumental Case assignment to +PPW agents of passive sentences is discussed in Chapter IV.

At times, a -PPW instrument is ruled out in A-Is. The NP *nožom* (knife-Instr.) cannot appear in the Adversity impersonal (28) because it usually needs a human controller.

(28)*Menja porezalo nožom.
 me-Acc. cut-sg.neut.Past knife-Instr.
 (?) 'I was cut with the knife.'

The instrument can become independent under certain circumstances, e.g. in a situation where no human agent is needed for the knife to become an instrument of cutting. For example, such a 'free' instrument will be a knife falling from the shelf (29):

(29) Stolovye pribory upali s polki i menja porezalo nožom.
 silverware fell from shelf and me-Acc. cut-sg.neut.Past knife-Instr.
 'Silverware fell from the shelf and I was cut with the knife (lit. 'It cut me with the knife').'

It is plausible that the verbs of A-Is with Instrumental NP agents characterized by a particular ‘lack of independent willpower’ have identical argument structures. Instrumental NPs in A-Is are optional when the causer of the action is understood from the situation, but they are not obligatorily absent. This point is illustrated in (30). The unexpected movement of a car is understood from the context as a cause for Vera’s changed position.

- (30) Na krutom povorote Veru rezkim tolčkom
on sharp turn Vera-Acc. sudden-Instr. movement-Instr.
naklonilo k Viktoru.
incline-neut.Past toward Victor
‘Vera was made to lean towards Victor by a sudden movement (of the car) on
the sharp turn.’

The force of gravity combined with the car’s sharp turn makes Tamara lean towards Galaxov in (31), where the ‘instrument’ (*rezkim tolčkom*- sudden movement-Instr.) may be overtly expressed. Sentence in (30) is compared to Babby’s example (15 a), repeated here as (31).

- (31) Na krutom povorote Tamaru naklonilo k Galaxovu.
on sharp turn Tamara:acc inclined:neut toward Galaxov
‘The car’s sharp turn made Tamara lean towards Galahov.’ Babby, 1993

Optionality of Instrumental agents of A-Is can be explained as follows. Instrumental NPs are optional in regular agentival sentences where the doer of the action uses itself (or a part of itself) as an instrument. In example (32), Peter uses his own body in order to move the chair; thus, any further specification such as ‘with his (Peter’s) foot’, ‘with his hand’ etc. might be unnecessary.

(32) Peter moved the chair (with his foot).

Our perception of instruments that are parts of ourselves may be explained along the lines of *de se* vs. *de re* attitudes towards oneself discussed in Chapter IV. This point requires further analysis.

There is additional evidence that Instrumental arguments of A-Is do not correspond to the Nominative arguments of 'agentival' sentences. The NP *mol'* (moth) is viewed as an agent/ performer of the action of 'eating' in the active sentences (33 a) and (34 a). The IZ-prefixed verb in (33) carries an additional meaning of a partial event, while the verb in (34) is prefixed with a perfective S-. Semantically, (34 a) refers to a completed action of 'eating', while in (33 a) the connotation is that of a partial action. Note that although both forms are Perfective, the impersonal form of the verb is acceptable only with *iz''jelo* (eat - incomplete) (33 b), and not with *s''jelo* (eat - complete) (34 b).

There is a clear difference between these two instances of *mol'* (moth) in being more (33 a) or less (33 b) 'active'. *Mol'* (moth) is perceived as substance (such as e.g. dust, rust etc.) rather than agent in A-I (33 b).

(33)a. Mol'	iz''jela	plat'e.
moth-fem.Nom.	IZ-eat-fem.Past	dress-Acc.
'Moth partially ate the dress.'		

b. Mol'ju	iz''jelo	plat'e.
moth-fem.Instr.	IZ-eat-neut.Past.	dress-Acc.
'The dress was partially eaten by moth.'		

(34)a. Mol'	s''jela	plat'e.
moth-fem.Nom.	S-eat-fem.Past	dress-Acc.
'Moth ate the dress.'		

b. * Mol'ju s''jelo plat'e.
 moth-fem.Instr. S-eat-neut.Past dress-Acc.
 'The dress was eaten by moth.'

The verb *portit* ' (spoil/ ruin) behaves similarly: *isportit* 'means 'to spoil/ to ruin completely' (35 a) and *poportit* 'to damage to some extent' (35 b). The Instrumental NP *grad* (hail) appears in A-I (35 d) as a partial action participant, and is excluded from (35 c).

(35) a. Grad isportil posevy.
 hail-Nom. IS-spoil-Past crops
 'The hail ruined the crops.'

b. Grad poportil posevy.
 hail-Nom. PO-spoil-Past. crops
 'The hail partially damaged the crops.'

c. *Gradom isportilo posevy.
 hail-Instr. IS-spoil-neut.Past crops
 'The crops were ruined by the hail.'

d. Gradom poportilo posevy.
 hail-Instr. PO-spoil-neut.Past crops
 'The crops were partially damaged by the hail.'

Verbs with the same root but different prefixes, such as in (33 a, b) vs. (34 a, b) and in (35 a, c) vs. (35 b, d), are not identical semantically, and the difference lies in the action being either partial or complete. These and similar examples show that there is a clear semantic difference between Instrumental and Nominative arguments' thematic role. The former

(internal) 'doer' is capable of a partial action only and is viewed as substance rather than +PPW. The latter, in contrast, can perform both complete and partial actions.

In addition, as attested by several native speakers of Russian, in the following examples A-I variants are perceived as a description of a change of state where Instrumental agents are viewed as a means rather than active causers of the action (36 a, b). On the other hand, Nominative agents of corresponding 'agentival' sentences are accepted as causers of events (36 c, d).

(36)a. Tarakanami oblepilo potolok.
 cockroaches-pl.Instr. stick-cover-sg.neut.Past ceiling-Acc.
 lit. 'It covered the ceiling with the cockroaches.'
 'The ceiling was covered with the cockroaches.'

b. Gryzunom potravilo posevy.
 rodent-masc.Instr. destroy-sg.neut.Past crops-Acc.
 lit. 'It destroyed the crops by the rodent.'
 'The crops were destroyed by rodents.'

c. Tarakany oblepili potolok.
 cockroaches-pl.Nom. stick-cover-pl.Past ceiling-Acc.
 'The cockroaches covered the ceiling.'

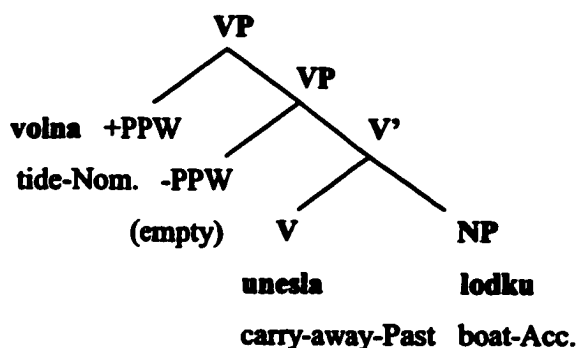
d. Gryzun potravil posevy.
 rodent-masc.Nom. destroy-masc.Past crops-Acc.
 'Rodents destroyed the crops.'

It follows from the analysis presented here that semantic roles of Instrumental and Nominative agents are different, and -PPW agents can be regarded as primary (direct) agents, found closer to the verbal head.

I assume that the ‘Adversity-personal’ sentences such as (37) are regular agentive sentences with a +PPW, or secondary, agent *volna* (tide) in the Nominative Case. The instrument is absent because *volna* (tide) uses its own volume to perform the action, following the assumption that +PPW agents can use themselves, or parts of themselves, for that purpose.

- (37)a. *Volna* *unesla* *lodku.*
 tide-sg.fem.Nom. carry-away-sg.fem.Past boat-Acc.
 ‘The tide carried away the boat.’

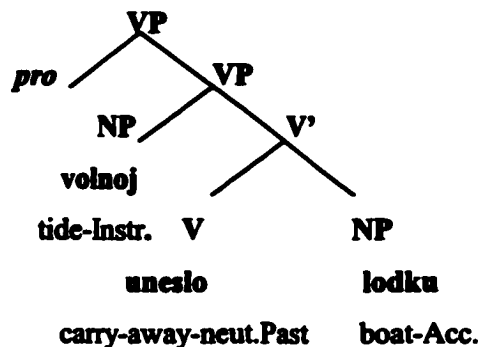
b.



Actions expressed by A-Is do not require an explicit +PPW agent (38). The verb of A-Is is inflected for number and gender (singular, neuter). By assumption, a +PPW position of A-Is is occupied by a semantically empty element *pro* with phi-features (singular, neuter) in agreement with the verb.

- (38)a. *Lodku* *uneslo* *volnoj.*
 boat-Acc. carry-away-sg.neut.Past tide-Instr.
 ‘The boat was carried away by the tide.’

b.



Chomsky (1995, 1997) assumes that when there are two subject positions within VP, the highest is occupied by an empty *pro*. This is consistent with Franks' (1995) idea that "a subject may be phonologically null or overt, and it may be a meaningful argument of the verb or be semantically vacuous". The existence of *pro* is supported by several impersonal types of sentences where the verb carries phi-features (singular, neuter). Some verbs of this type will be analyzed in this Chapter.

As a conclusion, verbs of Adversity-impersonal sentences in Russian have two subject positions (+PPW and -PPW). The +PPW position is occupied by a neutral *pro* in A-Is, and by a regular subject in corresponding personal sentences.

1.5. Comparative analysis of Adversity-impersonal and unaccusative structures

This part will deal with the analysis of Russian unaccusative structures formed with the same verbs that appear in A-I sentences. I will propose a segmented representation for the lexical structure of such verbs. Whether the verb is unaccusative or not depends on the way this structure is projected into syntax.

Babby provides the following examples to support the claim that middles are derived by the rule of the first internal theta-role externalization (Babby, 1993, (25 c, d, e), repeated here as (39 a, b, c)). Note that (39 b) is treated as demiactive with a raised subject, and not as a regular agentival sentence.

(39)a.middle: Jama napolnilas' vodoj (*rabočimi). Babby, 1993, p.15
 pit-Nom. fill-SJA-Past. water-Instr./ workers-Instr.
 'The pit filled with water (*by the workers)'.

b.demiactive (A-P): Voda napolnila jamu (*rabočimi).
 water-Nom. fill-Past pit-Acc. workers-Instr.
 'Water filled the pit (*by the workers)'.

c.impersonal (A-I): Jamu napolnilo vodoj (*rabocimi).
 pit-Acc. fill- neut.Past water-Instr workers-Instr.
 'The pit got filled with water'.

Babby's suggestion is that middle sentences as in (39 a) are derived from A-Is (39 c) when the direct internal argument is externalized with the final SJA-affixation to the verb. First of all, the NP *voda* (water) is interpreted in (39 a) as material and not as instrument (see Grimshaw, 1990, Rappoport Hovav, 1988). It will be shown that the pairs such as (40 a) and (40 b) cannot be analyzed along similar lines. Examples (40 a) and (41 a) are A-Is. Here as well, a sentence with the intransitive variant of the verb *ukrylas'* (covered) appears with 'material' *snegom* (snow-Instr.) in (41 b). The instrument is excluded in (40 b).

(40)a. Lodku razbilo volnoj.
 boat-fem.sg.Acc. break-neut.sg.Past tide-Instr.
 'The boat was broken by the tide.'

b. Lodka razbilas' (*volnoj).
 boat-fem.sg.Nom. break-SJA-fe.sg.Past tide-Instr.
 'The boat broke (*by the tide).'

(41)a. Zemlju ukrylo snegom.
 ground-fem.sg.Acc. cover-neut.sg.Past snow-Instr.
 'The ground was covered with snow.'

b. Zemlja ukrylas' snegom.
 ground-fem.sg.Nom. cover-SJA-fem.sg.Past snow-Instr.
 Lit. 'The ground was covered/ covered itself with snow.'

Example (40 b) is ungrammatical with Instr. NP *volnoj* (tide) because the sentence expresses the resulting state of the boat without any reference to the cause. Examples below serve to illustrate the point that *kamnem* (stone) is not perceived as the cause in (42 b):

(42)a. Mašinu udarilo kamnem, skativšimsja s gory.
 car-Acc. hit-neut.sg.Past stone-Instr. rolling from hill
 'The car was hit by the stone that rolled down from the hill.'

b. *Mašina udarilas' kamnem, skativšimsja s gory.
 car- fem.Nom. hit-SJA-fem.Past stone-Instr. rolling from hill
 (lit.) 'The car hit by the stone that rolled down from the hill.'

In the type of sentence that requires no reference to the cause a verb selects a PP (43-45):

(43) Lodka razbilas' o volnu/ *volnoj.
 boat- fem.Nom. break-SJA-fem.Past against tide-Acc./ tide-Instr.
 'The boat broke against the tide/*with the tide.'

(44) *Mašina oprokinulas' ot udara/ *udarom.*
 car- fem.Nom. turn-over-SJA-fem.Past from blow-Gen./ blow-Instr.
 'The car turned over because of the blow/*with the blow.'

(45) *Palec natjorsja o botinok/ *botinkom.*
 toe-masc.Nom rub-SJA-masc.Past against boot-Acc./ boot-Instr.
 'The toe (*rubbed-mid.) was rubbed against the boot/*with the boot.'

On the other hand, in case of a material-denoting argument, such as snow, water, etc., Instrumental NPs are required and PPs are disallowed. The number of verbs that take this kind of argument is limited and includes verbs with the core meaning of 'cover' and 'fill' (46, 47). Note also that *vodoj* (water-Instr.) is optional in (46) and *snegom* (snow-Instr) is obligatory in (47).

(46) *Vanna napolnilas' (vodoj)/ *ot vody.*
 tub-fem.Nom. fill-SJA-fem.Past water-Instr./ from water
 'The tub filled with water.'

(47) *Zemlja ukrylas' (*snegom)/ *ot snega.*
 ground-fem.Nom. cover-SJA-fem.Past snow-Instr./ from snow
 'The ground covered itself with snow.'

All of the above-mentioned verbs without exception appear in the so-called 'adversity-personal' sentences, such as (41 a). However, there is nothing adverse about 'filling' in (48) and 'covering' in (49):

(48) *Voda napolnila vannu.*
 water-fem.Nom. fill-fem.Past tub-Acc.
 'Water filled the tub.'

(49) **Sneg ukryl zemlju.**
snow-masc.Nom. cover-masc.Past ground-Acc.
'Snow covered the ground.'

I assume that the difference between the structures of examples (43 - 45) and that of (46, 47) is that the verbs of 'covering' and 'filling' require some substance necessary for the agent to perform the action. To repeat, a 'material' NP is obligatory in (50). Furthermore, SJA-suffixation suggests that the action is reflexive.

(50) **Zemlja ukrylas' *(snegom).**
ground-fem.Nom covered-SJA-fem.Past snow-Instr.
'Snow covered the ground.'

In (51), there is no requirement for any kind of material to assist in performing the action; moreover, any substance is excluded as a cause as well as material:

(51) **Lodka razbilas' (*volnoj).**
boat-fem.Nom. broke-SJA-fem.Past tide-Instr.
'The boat broke.'

According to a hypothesis developed in this Chapter, sentences such as (50) are regular agentival ones where Instr. NPs are the material in the event of filling/ covering. On the other hand, in (51) the 'causer' is unexpressed, and the structure represents the resulting state only.

As has already been suggested, direct agents of the action find their expression as Instrumental NPs in A-Is. I call these syntactic elements direct (-PPW) subjects because they are primary in the chain of atomic events as they are closer to the verbal head. For example, when cutting bread with a knife, it is the knife (or the direct agent) that actually

causes the cutting, while the doer of the action is the indirect agent. When a regular ‘agentival’ structure is projected, the indirect agent appears in the Nominative, while the direct Instrumental agent may remain unexpressed, e.g. when the tide uses its volume to perform the action.

If we treat Instrumental NPs as instruments rather than direct agents, then we have to explain why these instruments may appear as volitional subjects. The instrument *ruka* (hand) is viewed as +PPW in example (52 a) vs. –PPW in (52 b), but *ručka* (pen) is excluded from appearing in (53 a). The agent of (52 a) is not an instrument but a regular subject.¹

(52)a. Ego ruka nežno tronula ejo volosy.
 his hand-fem.Nom. tenderly touch-fem.Past. her hair-Acc.
 ‘His hand tenderly touched her hair.’

b. On nežno tronul rukoj ejo volosy..
 he-masc.Nom. tenderly touch-masc.Past. hand-Instr. her hair-Acc.
 ‘He tenderly touched her hair with his hand.’

(53)a. *Ručka napisala pis'mo.
 pen-fem.Nom. write-fem.Past letter-Acc.
 ‘The pen wrote the letter.’

b. On napisal ručkoj pis'mo.
 he-masc.Nom. write-masc.Past. pen-Instr. letter-Acc.
 ‘He wrote a letter with a pen.’

¹ I am grateful to Robert Stainton for the following test. In a situation where his hand is cut off, and falls down touching her hair as it goes, (52 a) should be true and (52 b) should be false.

Impersonal sentences (54) and (55) with the verbs *tronut'* (touch) and *napisat'* (write) are ungrammatical, because these verbs require indirect agents (*on*-he in (56, 57)).

(54) *Tronulo nežno ego rukoj ejo volosy.
 touch-neut.Past tenderly his hand-Instr. her hair.
 (lit.) 'It touched her hair tenderly with his hand.'

(55) *Napisalo ručkoj pis'mo.
 write-neut.Past pen-Instr. letter-Acc.
 (lit.) 'It wrote the letter with the pen.'

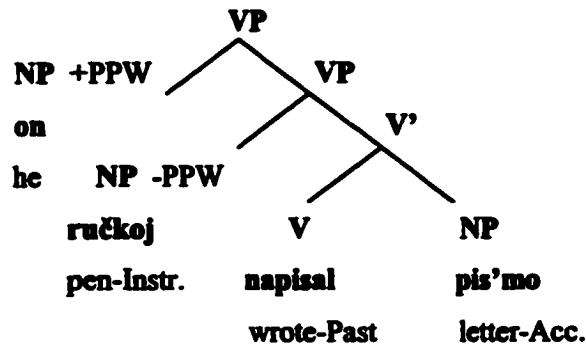
(56) On nežno tronul rukoj ejo volosy.
 he-masc.Nom. tenderly touch-masc.Past. hand-Instr. her hair.
 'He tenderly touched her hair with his hand.'

(57) On napisal ručkoj pis'mo.
 he-masc.Nom. write-masc.Past pen-Instr. letter-Acc.
 'He wrote the letter with the pen.'

Thus, these and similar verbs require an obligatory + PPW (indirect) subject that can use a –PPW element as its instrument (58).

(58)a. On napisal ručkoj / karandašom pis'mo.
 he-masc.Nom. write-masc.Past pen-Instr./ pencil-Instr. letter-Acc.
 'He wrote the letter with the pen/ with the pencil.'

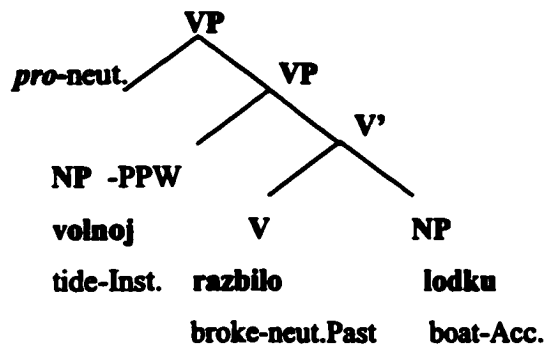
(58)b.



In contrast, the structure of A-Is does not select indirect explicit NP subjects. Instead, it is assumed to be represented by impersonal *pro*, which is in morphological agreement with the verb (59).

(59)a. Lodku razbilo (volnoj).
 boat-Acc. broke-sg.neut.Past tide-Instr.
 'The boat was broken by the tide.'

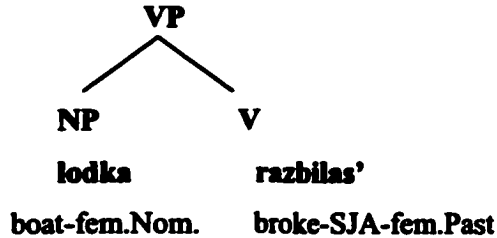
b.



I will assume at this point that the lower part of the lexical representation is what is mapped onto the syntax of unaccusative sentences. This explains ungrammaticality of unaccusative sentences such as (51), repeated here as (60).

(60)a. *Lodka* *razbilas'* (**volnoj/ *vodoj*).
 boat-fem.Nom. broke-SJA-fem.Past tide-Instr./water-Instr.
 'The boat broke.'

b.



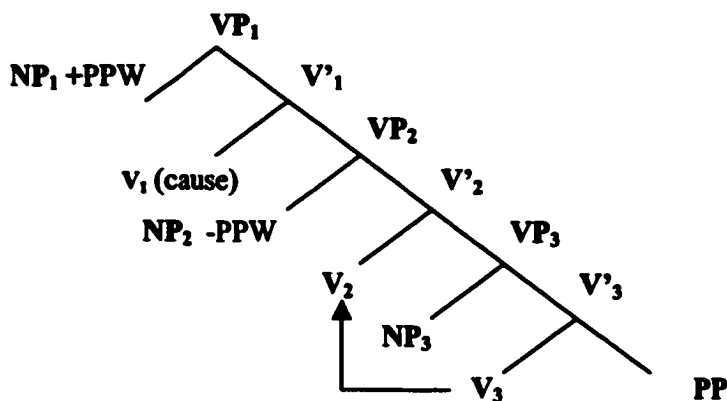
The above data supports the view that lexical representation of causative verbs of Adversity sentences is multi-clausal in the sense of containing a 'layered' VP. This representation corresponds to the structure of the event described by the verb, and consists of two subevents: the causing subevent and the event of a change of state (or location). I follow the suggestion that the causing subevent employs two agents, indirect and direct, of which the former causes the latter to perform the action. Thus, the causing subevent, in its turn, consists of two parts. Both Adversity-impersonal and agentival sentences with overtly expressed 'instruments' represent a full projection of the structure into syntax.² In contrast with regular 'agentival' sentences, the position of an indirect subject in A-Is is filled by an implicit *pro* with theta-features (sg., neut). In unaccusative structures, the lower part is the projected one, which excludes Instrumental NPs from appearing as direct subjects.

² Instrument-selection is explicit in examples such as *Mary killed a bird with a stone* and *Mary killed/shot a bird with a pistol* vs. **Mary shot a bird with a stone* and **Mary killed a bird with a bullet*.

1.6 Resultatives. Sentences with locative PPs

Verbs of A-I constructions are viewed in this Chapter as participants in alternations brought about by their causative-resultative character. While their core meaning remains unaltered, their extended meaning can be associated with an accomplishment, where the 'cause' subevent and the 'result' subevent are represented in its structure. The first subevent is a causing activity and the second one can be a resultant change of state or location. Here I follow a widely accepted idea that a lexical representation for unaccusatives is in fact an underlying causative (Chierchia, 1989, Pustejovsky, 1991, 1995, Hale & Keyser, 1993, Levin & Rappaport Hovav, 1995, 1996). A causative structure is one in which a projection headed by an empty verb takes a VP complement as a second event. Syntactic structures are modified in such a way that they can accommodate both +PPW and -PPW agents, as well as possible locative PPs (61). The causing part of the structure consists of two subevents expressed by VP₁ and VP₂. The resulting part is expressed by VP₃. Complement PP of the lower verb V₃ specifies either the nature of the resulting event or its location. This complement adjoins to the lower verb and then is raised to adjoin the higher verb. V₃ moves up to V₂, assigning a -PPW argument to NP₂. V₁ headed by a 'cause' verb assigns a +PPW role to NP₁. The lower part of the structure that represents a change of state is projected in case of intransitive variants of Vs.

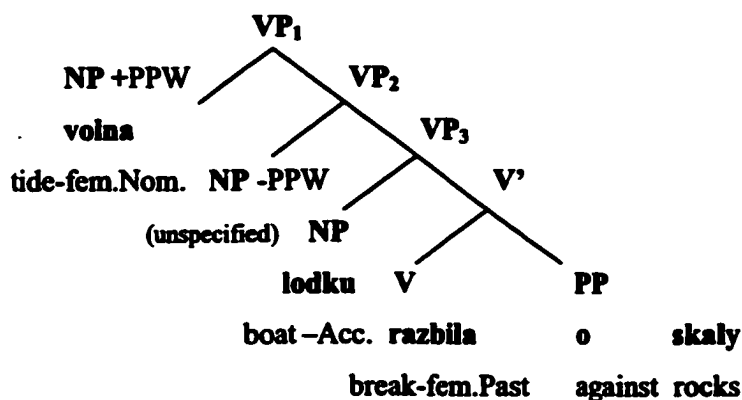
(61)



Recall that I proposed earlier that if the event is brought about by a +PPW agent with or without an instrument, the higher part of the structure is projected into syntax. This is the case with regular agentival sentences (62). The –PPW agent is unspecified, because the subject *volna* (tide) is a natural phenomenon, and as such it does not employ instruments.

- (62)a. *Volna razbila lodku (o skaly).*
 tide-fem.Nom. broke-fem.Past boat-Acc. against rocks
 ‘The tide broke the boat against the rocks.’

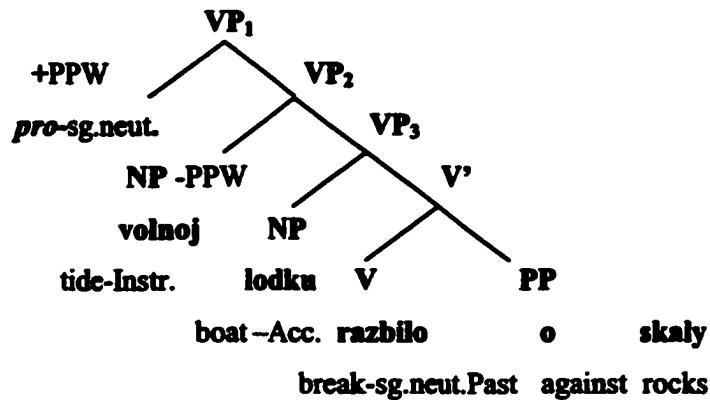
b.



A-Is require direct agents expressed by Instrumental NPs; the structure is assumed to contain *pro*, which is in agreement with the verb, in its indirect subject position (63).

- (63)a. *Lodku razbilo volnoj (o skaly).*
 boat-Acc. broke-sg.neut.Past tide-Instr. against rocks
 ‘The boat was broken by the tide against the rocks.’

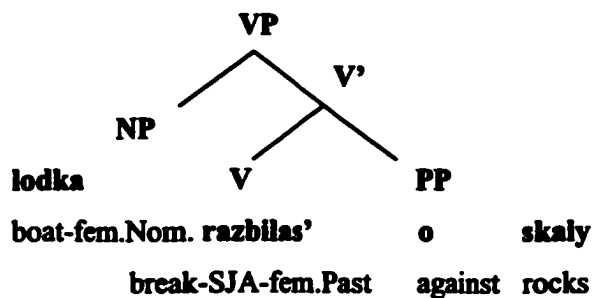
(63)b.



Unaccusatives require neither +PPW nor -PPW agents, as the lower part of the structure is the one projected into syntax (64). SJA-affix is the marker of unaccusativity.

(64)a. Lodka razbilas' o skaly (*volnoj).
 boat-fem.Nom. broke-SJA-fem.Past against rocks tide-Instr.
 'The boat broke against the rocks (* with the tide).'

b.

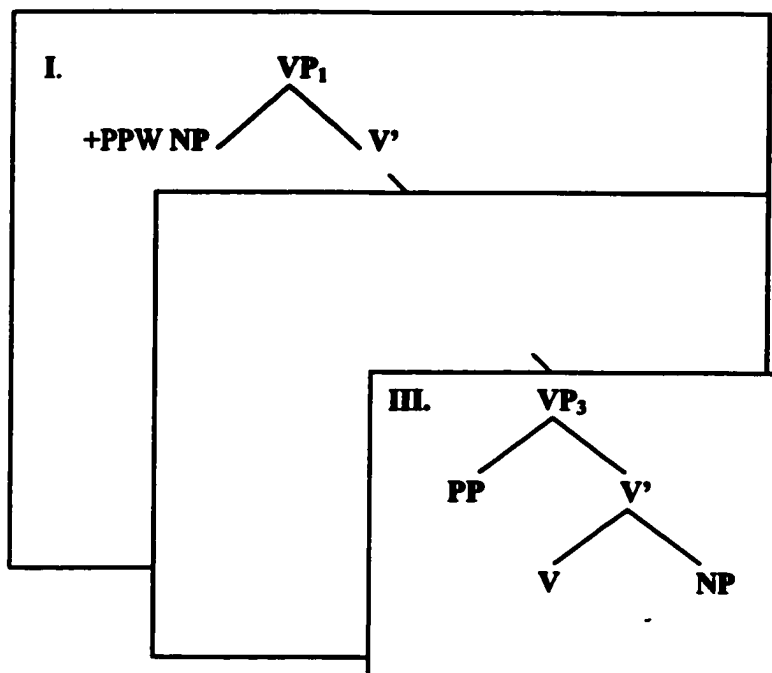


As is seen in examples (62 - 64), a locative PP can appear both in the accusative (62, 63) and in the unaccusative (64) structures.

At this point, the structure of causative verbs that appear in Adversity constructions is represented as having three major parts (65). The resulting projection depends on

whether the causing agent is explicit or not (I, II vs. III), and if it is explicit, whether it is +PPW or -PPW.

(65)



Then, part III alone is a structure for the unaccusative (64), a complete projection I which incorporates II and III represents both a regular agentival structure (62), and is an expression of A-I (63).³

³ +PPW / -PPW distinction may be found in intransitive structures as well. Only -PPW agents appear in the Genitive of Negation ((i) vs. (ii)). Such and similar examples are discussed in Pesetsky (1982). Notice that this distinction is present only when the verb is impersonal.

(i) V bassejne korabliki ne plavali/ korablikov ne plavalo.
in swimming pool toy-boats-Nom.pl. no swim-pl.past/ toy-boats-Gen.pl. no swim-neut.sg.
'Toy-boats did not float in the swimming pool.'

(ii) V bassejne deti ne plavali/ *detej ne plavalo.
in swimming pool children-Nom.pl. no swim-pl.past/ children-Gen.pl. no swim-neut.sg.
'Children did not swim in the swimming pool.'

1.7 Consistency of the resultative structures

Additional evidence in support of the consistency of resultative structures comes from the following data. In Russian, prefixation is associated with augmentation of the verb's template. For example, the *S*-prefixed form indicates a certain change of position, e.g. 'removal', such as *sbrosit* 'throw away from', *sdivnut* 'move something away from'. The *VY*-prefixed form indicates the movement 'out of', such as *vybrosit* 'throw something out of', *vydvinut* 'move something out of', etc. Some other examples of prefixes and their corresponding meanings are: *o/oto-* separate (from), *pri-* approach, *pod-* move upwards, *raz-* divide (into parts).

There is a dependency between a prefix and a 'controlled' PP. For example, the *OT*-prefixed verbs take only *OT*-PPs, the *S*-verbs take *S*-PPs, etc.:

- (66)a. On OTOrval vetku OT/ *S dereva.
 he-masc. OTO-tear-masc.Past branch away from/ from tree .
 'He tore the branch off the tree.'
- b. On sorval vetku s/ *ot dereva.
 he SO-tear-masc.Past branch-Acc. from/ away from tree
 'He tore the branch off the tree.'

The following A-I examples in (67) with Instrumental NPs representing the causing event arguments and Accusative NPs representing arguments of the resultant event show that verbs and PPs are interdependent.

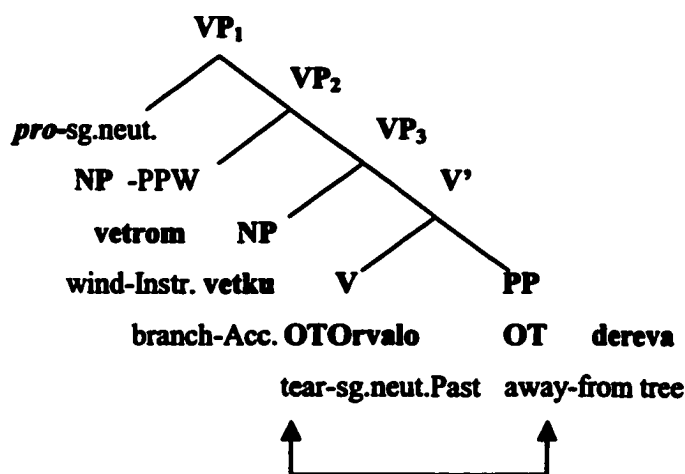
- (67)a. (Vetrom) OTOrvalo vetku OT dereva.
 wind-Instr. OTO- tear-sg.neut.Past branch-Acc. away from tree
 'The branch was torn off the tree by the wind.'

(68)b. (Vetrom) SOrvalo vetku S dereva.
 wind-Instr. SO- tear-sg.neut.Past branch-Acc. from tree
 'The branch was torn off the tree by the wind.'

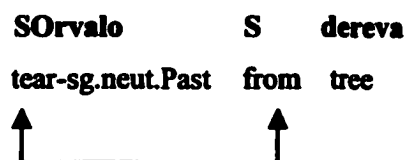
c. *(Vetrom) SOrvalo vetku OT dereva.
 wind-Instr. SO- tear-sg.neut.Past branch-Acc. away from tree
 'The branch was torn off the tree by the wind.'

d. *(Vetrom) OTOrvalo vetku S dereva.
 wind-Instr. OTO- tear-sg.neut.Past branch-Acc. from tree
 'The branch was torn off the tree by the wind.'

e.



f.

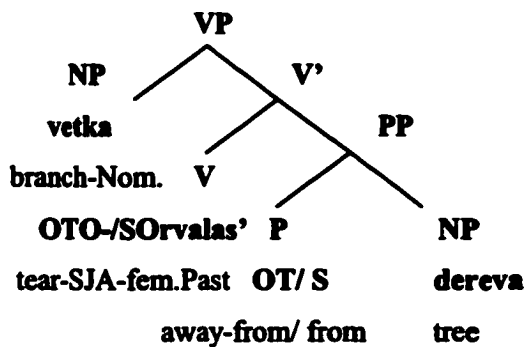


Examples (68) represent the lower part of the projection in (67 e). Note that Instrumental NPs are unacceptable in the lower part structures as is expected, because the causing element belongs to the upper part of the projection.

(68)a. (*Vetrom) vetka otorvalas' (ot / *s dereva).
 wind-Instr.branch-fem.Nom. OTO-tear-SJA-fem.Past away from / from tree
 (lit.) 'The branch tore away from the tree (*by the wind).'

b. (*Vetrom) vetka sorvalas' (s / *ot dereva).
 wind-Instr.branch-fem.Nom. SO-tear-SJA-fem.Past away from / from tree
 (lit.) 'The branch tore away from the tree (*by the wind).'

c.



It is widely accepted that morphological derivations do not represent different entries in the mental lexicon. Rather, what is stored in memory are entries of a morphological stem and affixes. In which case, the prefix is attached at the V₃ level, before the verb movement occurs (see (65)).

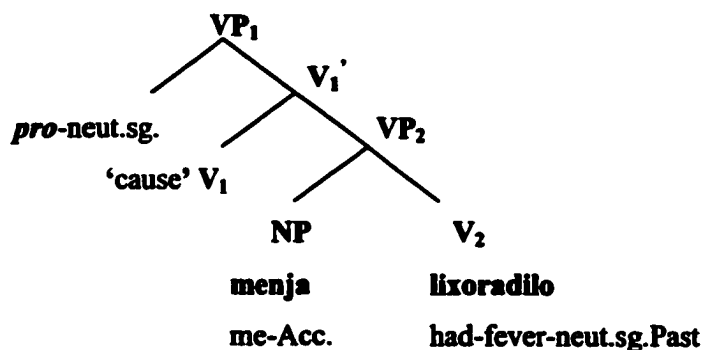
It is a general rule in Russian that SJA- affixation makes the verb lose its transitive properties; in (69) a verb cannot take a direct object *steklo* (glass). As has already been assumed, the lexical structure of such verbs consists of a V₃- layer only. Verbs of this kind will be discussed in detail in Chapter IV.

(69) Vaza razbilas' (*steklo).
vase-fem.sg.Nom. break-SJA-fem.sg.Past glass
'The vase broke.'

The analysis presented here leads to the assumption that some verbs might have a lexical representation that consists of V_1 and V_3 layers only, lacking V_2 with –PPW agent. Russian data shows that where the condition of a patient is described, the only acceptable structure is where Instrumental NPs are excluded (70). The presupposed cause of the resulting state can be expressed only by a PP *ot vysokoj temperatury* (because of a high temperature). NP *vysokoj temperatury* is assigned Genitive Case by a preposition.

(70)a. Menja lixoradilo ot vysokoj temperatury/ * temperaturoj.
me-Acc.have-fever-neut.sg.Past from high temperature-Gen./-Instr.
(lit.) 'I was feverish because of a high temperature/ *by a high temperature.'
'I had a fever because of a high temperature.'

b.



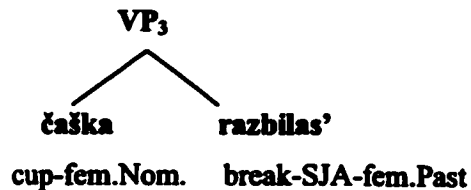
The +PPW subject position in (70) is occupied by *pro* (singular, neuter), which is in agreement with V. The patient *menja* (me-Acc.) occupies an object position, marked by Acc. as a regular direct object. Thus, physical state verbs disallow any 'causer' agent other than *pro* (71 a). Furthermore, unaccusative structures are excluded as well (71 b).

(71)a. *Ja lixoradil (vysokoj temperaturoj).
 I-Nom. have-fever-Past high-Instr. temperature-Instr.
 (lit.) 'I was feverish by a high temperature.'
 'I had a fever (*by a high temperature).'

b *Ja lixoradilSJA (vysokoj temperaturoj).
 I-Nom. have-fever-SJA-Past high-Instr. temperature-Instr.
 (lit.) 'I was feverish by a high temperature.'
 'I had a fever (*by a high temperature).'

In contrast, unacusative structures with Nominative subjects project only the lower part of the lexical representation.

(72) Čaška razbilas'.
 cup-fem.sg.Nom. break-SJA-fem.sg.Past
 'The cup broke.'



Thus, some processes are encoded by the language as involuntary in the sense that we have no control over our own shivering or blushing and must resort to additional means if we want to put an end to it (medicine, ice water - respectively). In which case, *pro* represents the external causer of the event. On the other hand, the event of e.g. breaking can be perceived either as voluntary or involuntary; thus, the agent is expressed either by NP or by *pro*.

1.8 Null subject phenomena in Slavic languages

As it is assumed in this thesis, the +PPW position of regular Russian ‘agentival’ sentences is occupied by *pro* with phi-features in impersonal constructions. There is additional evidence for the existence of this type of expletive *pro* in Slavic languages other than Russian. Impersonal verbs also carry agreement features (3d person, singular, neuter) with *pro* which is unexpressed in Ukrainian (73), Czech (74), and Bulgarian (75).

(73) Nadvori bulo xolodno.
outside be-sg.neut.Past cold
‘It was cold outside.’

(74) Svitalo.
dawn-sg.neut.Past
‘It dawned.’

(75) E toplo.
be-3d.sg.Pres. warm
‘It is warm.’

What is even more significant, in some Russian dialects *pro* finds its expression as a 3d person singular neuter pronoun *ono*, which is semantically empty:

(76) Ono kak-to neprijatno naxodit’sja v etom dome (colloq.)
it-3d.sg.neut. somehow unpleasant stay-inf. in this house
‘It is somehow unpleasant to stay in this house.’

(77) Ono i duraku ponjatno (colloq.)
 it-3d.sg.neut. and/even fool-Dat. clear
 'It is clear even to a fool (It goes without saying).'

We may expect to find languages that preserve both explicit and implicit forms of *pro*. Indeed, Galician Portuguese is such a language, as is observed in Franks (1995):

(78)a. (El) chovia.
 'It rained.'

b. (El) parecia que o patron andaba canso.
 'It seemed that the boss went around tired.'

Thus, although *pro* of impersonal sentences is semantically empty, it can find its expression either overtly (English) or covertly (Slavic languages), or both (Galician Portuguese, colloquial Russian).

1.9 'Absolute' and impersonal sentences with Dative and Accusative subjects

'Absolute' impersonal sentences which express mostly natural phenomena do not require a logical subject; however, verbs in such sentences show agreement with the structural subject *pro* (sg, neut.).

(79)a. Rassvetact/ rassvetalo.
 dawn-3d.sg. Pres./ dawn-3d.sg.neut.Past
 'It is dawning/ it was dawning.'

b. Temneet/ temnelo.
 get-dark-3d.sg.Pres./ get-dark-3d.sg.neut.Past
 'It is getting dark/ it was getting dark.'

c. Morosit/ morosilo.
 drizzle-3d.sg.Pres./drizzle-3d.sg.neut.Past
 'It is drizzling/ it was drizzling.'

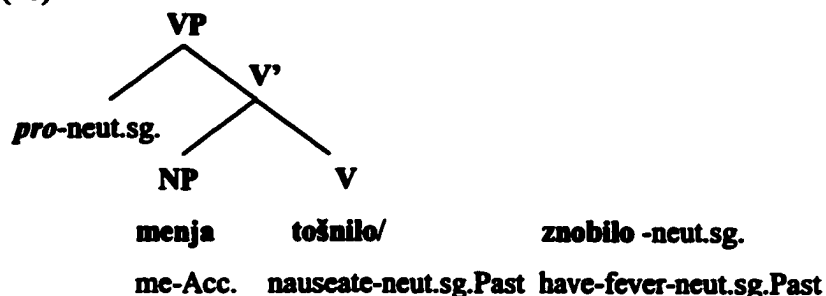
This is also the case with Accusative impersonal sentences where the verb carries agreement features of neuter *pro*. The event of such sentences, usually a physical process, requires a participant (patient) expressed by Accusative NP.

(80)a. (*Menja) tošnit / tošnilo.
 me-Acc. nauseate-3d.sg.Pres./ nauseate-3d.sg.neut.Past
 'I feel nausea/ felt nausea.'

b. (*Menja) znobit/ znobilo.
 me-Acc. have-fever-3d.sg.Pres./ have-fever-3d.sg.neut.Past
 'I have a fever/ had a fever.'

Although it occupies the initial position in a sentence, Accusative logical subjects of (80 a) and (80 b) do not occupy the same position as indirect (+PPW) subjects. First, *menja* (me-Acc.) is not a causative element in the chain of events, but rather a patient, traditionally called an Experiencer, in a certain physical state (of nausea, of a fever etc.). Thus, it does not have a +PPW feature. Secondly, it bears Accusative Case, just like a regular direct object. Most obviously, an Accusative logical subject occupies a position of an object, as in the syntactic structure (81) for examples in (80). A +PPW subject position is occupied by *pro*.

(81)



By contrast, a Dative logical subject is optional and when it is absent, it is usually replaced by a locative PP.⁴ A predicate of such sentences is represented by a special Adverbial form which is an abbreviated variant of an adjective (neut.), e.g. *xolodnoe* (adj. neut.) -> *xolodno* (adv.), such as in *Mne xolodno* (I feel cold). As the Adverbial expresses a certain state, it appears alongside either an experiencer (82 a) or a location (82 b). Examples (82 a, b) show that the agreement features (sg., neut.) are found on a copular verb *byť* 'be' in the Past.

(82)a. *Mne (bylo) xolodno.*
 me-Dat. be-sg.neut.Past cold
 'I feel (felt) cold.'

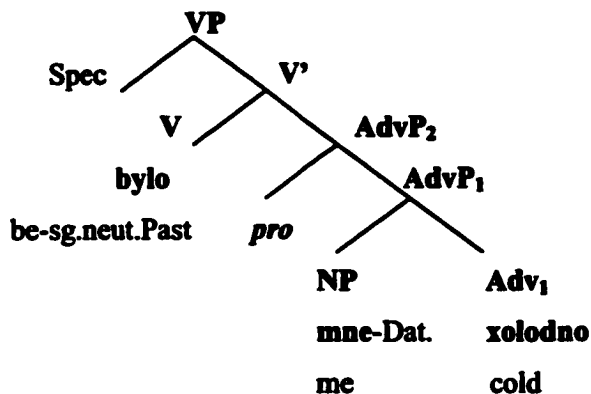
b. *Na ulice (bylo) xolodno.*
 in street be-sg.neut.Past cold
 'It is (was) cold outside (in the street).'

The structure in (83 a) can be represented as having an empty *pro* in the subject position:

⁴ Sentences with Dative logical subjects are extensively discussed in Schoorlemmer, 1994, Moore & Perlmutter, 2000.

(83)a. Mne (bylo) xolodno.
 me-Dat. be-sg.neut.Past cold
 'I feel (felt) cold.'

b.



Postulation of *pro* in Russian sentences with Dative subjects accounts for a difference in meaning between (84) and (85), where (84) reflects experiencing a certain state caused by an external agent, while (85) attests a physical condition (of having a cold body), or an internal state. In this sense, the English sentence in (86) is ambiguous between the two meanings.

(84) Emu xolodno.
 he-Dat. cold
 'He feels cold.'

(85) On xolodnyj.
 He-masc.Nom. cold-masc.
 'He is cold (his body is cold).'

(86) He is cold ('He feels cold' / 'His body is cold').

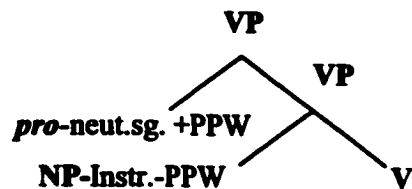
Moore & Perlmutter (2000) compare sentences with Dative subjects such as (84) and (87), and conclude that a Dative subject is a true subject in sentences with infinitival clauses only.

(87) Mne ne uspet' na rabotu.
 me-Dat no be-on-time-Inf. on work
 'It's impossible for me to be at work on time.'

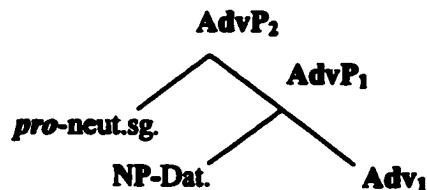
I propose that in both cases such as (84) and (87) there is an empty *pro* (indirect subject) and a Dative 'patient' (direct subject), and in both structures the status of Dative subjects is the same. The structure with Dative subjects is similar in part to what is found in Adversity-impersonal sentences, in that they both have positions for NP and neuter *pro* subjects.

In contrast with A-Is where -PPW argument position is reserved for Instrumental (direct) agents, the corresponding position of Dative impersonal sentences is not projected; instead, a 'patient' position is obligatorily filled by NPs in the Dative. To repeat, a patient cannot be considered initiator of the event, but rather is an experiencer of a certain state.

(88)a. Instrumental and *pro* subjects of Adversity-impersonal constructions



(88)b. Dative and *pro* subjects of Dative constructions



Impersonal sentences with infinitival clauses such as (87) have no overt agreement features on any element; however, a negative particle *ne* is in fact a substitute for *nevozmožno* (impossible). Example (89 b) is the only variant of (89 a) in the Past Tense. As is expected, the agreement features are found on a copular verb *byt'* (be), which is in agreement with *pro*, in (89 b). In contrast, sentence (90) has a regular NP subject *Ja* (I-Nom.).

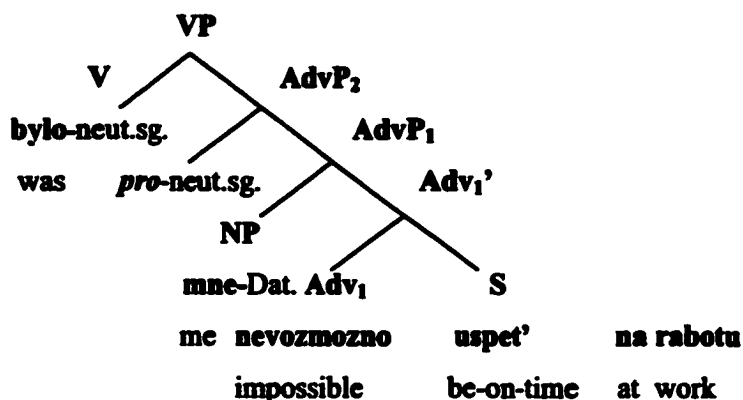
(89)a. Mne ne(vozmožno) uspet' na rabotu.
 me-Dat. impossible be-on-time-inf. on work
 'It is impossible for me to be at work on time.'

b. Mne bylo ne(vozmožno) uspet' na rabotu.
 me-Dat. be-sg.neut.Past impossible be-on-time-inf. on work
 'It was impossible for me to be at work on time.'

(90) Ja ne mogu/ mog uspet' na rabotu.
 I-Nom. not can-Pres./ can-Past be-on-time-inf. on work
 'I can not/ could not to be at work on time.'

AdvP appears to have a subject *pro* in agreement with a copula, in which case examples (82, 84, 87) and (89) all have a structural null element in the indirect subject position. A partial structure for (90) is given in (91).

(91)

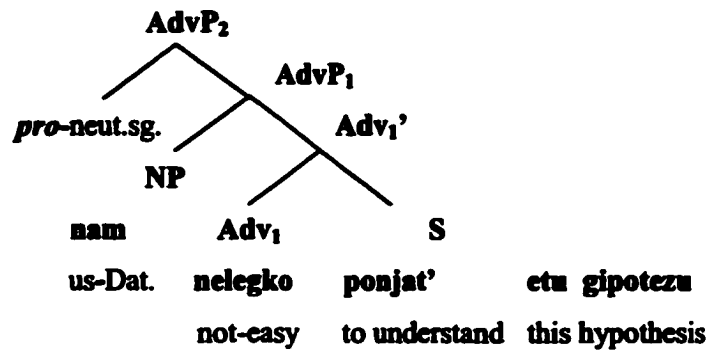


Semantically, Dative agents are experiencers of states that exist independently of their participants, which can be optional, e.g. (*Mne*) *legko dyšitsja* – lit. ‘It breathes with ease (to me)’, (*Mne*) *xorošo* – lit. ‘It feels good (to me)’. In contrast, Accusative experiencers of impersonal sentences such as (80) are participants of the event, and cannot be dismissed.

Moreover, impersonal adverbs with Dative logical subjects take infinitival clauses as objects (92). By contrast, impersonal verbs with Accusative logical subjects cannot take direct (infinitival or otherwise) objects because the position is occupied by an Accusative NP (93, 94).

- (92)a. Nam nelegko ponjat' vašu gipotezu.
 us-Dat. not-easy-Adv. understand-Inf. your hypothesis
 ‘It is not easy for us to understand your hypothesis.’

(92)b.

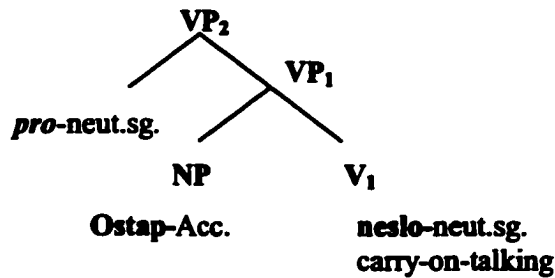


(93)a. Ostapa neslo (*razubedit' nas). (colloq.)

Ostap-Acc. carry-on-talking-sg.neut.Past. reassure us

'Ostap carried on talking (to reassure us).'

b.

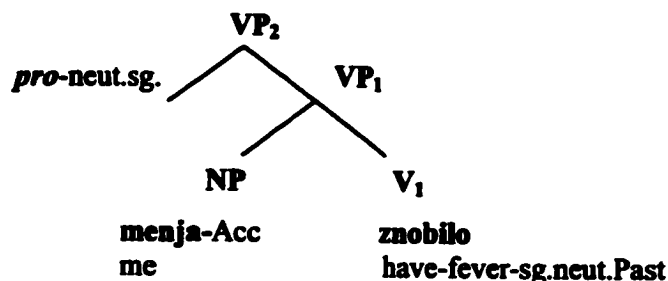


(94)a. Menja znobilo (*idti na rabotu).

me-Acc. have-fever-sg.neut.Past go to work

'I had a fever (*to go to work).'

(94)b.



To conclude this part, it appears that Dative logical subjects of impersonal sentences are the structural (affected) subjects (agents of 'states'), while the Accusative logical subjects of impersonal verbs are in fact objects of the events expressed by these verbs. Both the Dative and the Accusative structures have an implicit *pro* in place of a regular +PPW subject of resultative structures. The *pro* is in agreement with the verb in the Accusative constructions and with the copular of Dative sentences.

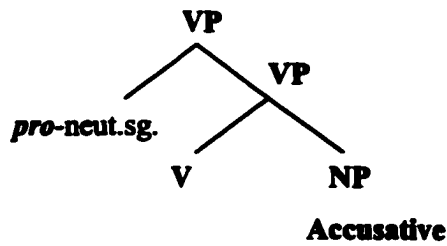
The analysis presented in this Chapter leads to the conclusion that it might not be necessary to refer to the thematic labels in the syntax, but rather to a hierarchy in the representation of subjects.⁵

1.10 Case assignment and impersonal sentences

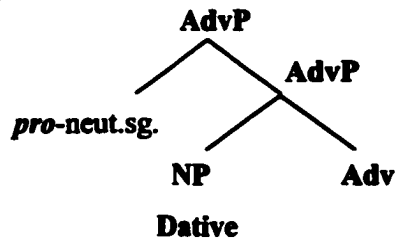
The choice of Case in Russian is based on several varied criteria. At first sight the task of unifying these criteria under one principle seems extremely complicated. Numerous linguists have admitted that they can provide rules neither for Case-selection nor for Case-contrasts. Furthermore, many consider Case a purely morphological phenomenon. However, impersonal verbs with Accusative subjects (95) and adverbials with Dative logical subjects (96) show consistency in their Case Assignment.

⁵ For a detailed discussion see Belletti and Rizzi (1988).

(95)



(96)



I assume that *pro* of impersonal verbs is assigned Nominative Case. This is also supported by the fact that Russian explicit *pro ono* (it) is marked by the Nominative: *ono*-Nom. vs. *emu*-Dat. and *ego*-Acc. (97, 98).

(97)a. Ono kak-to neprijatno naxodit'sja v etom dome (colloq.)
 it-3d.sg.neut. somehow unpleasant stay-inf. in this house
 'It is somehow unpleasant to stay in this house.'

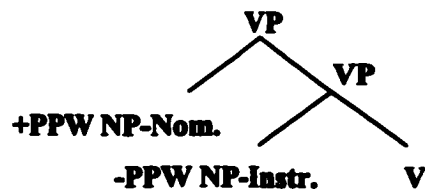
b. *Emu/ *ego kak-to neprijatno naxodit'sja v etom dome.
 it-3d.sg.neut.-Dat/ -Acc somehow unpleasant stay-inf. in this house
 'It is somehow unpleasant to stay in this house.'

(98)a. Ono i duraku ponjatno (colloq.)
 it-3d.sg.neut. and/even fool-Dat. clear
 'It goes without saying.'

b. *Emu/ ego i duraku ponjatno (colloq.)
 it-3d.sg.neut.-Dat./ it-3d.sg.neut –Acc. and/even fool-Dat. clear
 ‘It goes without saying.’

It was also shown in this Chapter that in general, Russian +PPW NP agents of causative structures are assigned the Nominative Case, and – PPW Instrumental.

(99)



According to one of the analyses (Bailyn & Rubin, 1991, Bowers, 1993), Instrumental Case is assigned by a null functional category Pred in Russian Small Clauses in sentences such as (100), where the Small Clause is [Mariju krasivoj] (Mary pretty):

(100) My sčitaem Mariju krasivoj.
 We consider Mary-fem.Dat. pretty-fem.Instr.
 ‘We consider Mary pretty’.

However, the verb *byl* ‘be’ is required to assign the Instrumental in (101) as the only possible Case.

(101)a. Marija *(byla) krasivoj v molodosti.
 Marija-fem.Nom. be-Past.fem. pretty-fem.Instr in youth
 ‘Mary was pretty when young.’

(101)b. *Marija byla krasivuju v molodosti.
 Marija-fem.Nom. be-Past.fem. pretty-fem.Acc. in youth
 'Mary was pretty when young.'

c. Marija krasivaja /*krasivuju/ *krasivoj.
 Marija-fem.Nom. pretty-fem.Nom. pretty-fem.Dat. pretty-fem.Instr.
 'Mary is pretty.'

Instrumental Case marking takes place in sentences where V other than *byl'* (be) assigns Case to a predicate of SC. In (102 a), Instrumental NP *programmistom* (programmer) is not only a SC predicate, but also a mode of some 'working' activity. Marija's working as a programmer does not necessarily mean that she is a programmer. This meaning is not to be confused with that in (102 b) where there is a very strong intuition that Marija is not a programmer at all. This difference of meaning is absent in English.

(102)a. Marija rabotala (programmistom).
 Marija-fem.Nom. work-fem.Past programmer-Instr.
 'Mary worked as a programmer.'

b. Marija rabotala (kak programmist).
 Marija-fem.Nom. work-fem.Past as programmer-Nom.
 'Mary worked as a programmer.'

A number of verbs assign Instrumental Case in Russian (103 a). Instrumental Case marks the predicate of SC [Marija krasivoj] in (103 b), which is possible only in the presence of V (*byla*-be-Past, *stala*-become-Past).

(103)a. Marija xorošo *(upravljaet) mašinoj i rukovodit ljud'mi.
 Marija well handle-3d.sg.Pres. car-Instr. and manage people-Instr.
 'Mary drives well and manages people well.'

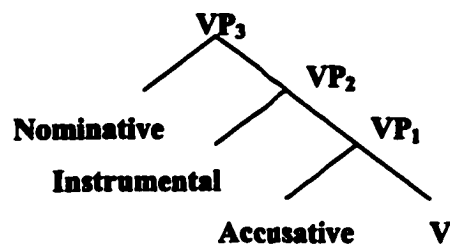
b. Marija *(byla)/ *(stala) krasivj.
 Marija-fem.Nom. be-fem.Past/ become-fem.Past pretty-fem.-Instr
 'Mary was/ became pretty.'

The structure of SCs in Russian will be explored in Chapter III . What is relevant for this part of the analysis is that Nominative, Instrumental, Accusative and Dative Case can be predicted in certain syntactic configurations. For instance, in A-Is and corresponding personal sentences Case relates to a position of the argument in the resultative structure (104 c).

(104)a. Lodku uneslo volnoj.
 boat-Acc. carry-away-sg.neut.Past tide-Instr.
 'The boat was carried away by the tide.'

b. Volna unesla lodku.
 tide-Nom.-sg.fem. carry-away-sg.fem.Past boat-Acc.
 'The tide carried away the boat.'

c.



This point requires further analysis. Meanwhile, it is assumed at this point that Case can be predicted in certain syntactic configurations in Russian.

1.11 Conclusions

In this Chapter I have shown how formal and semantic properties of certain Russian impersonal sentences with verbal predicates can be explained in terms of the verb's argument structure. A-Is cannot be viewed as impersonal passives of the corresponding A-Ps.

It was proposed that the basic argument structure of A-I verbs should be represented as having two subject positions (i.e. of a direct and of an indirect agent). Evidence that the indirect subject position is occupied either by a null element *pro* or a Nominative NP was presented in this Chapter as well. The analysis of semantic roles of direct and indirect agents now includes the feature of a Possessor of Personal Willpower ($\pm$ PPW).

The analysis of Russian impersonal sentences, such as A-Is and sentences with Dative and Accusative logical subjects, raises the question of why items with a “null” interpretation such as *pro* should exist in natural language. “Null” categories satisfy both formal and syntactic requirements, such as their need to check certain functional features and the requirements of the interpretation (see also Chapter V for a discussion concerning *pro expl* of existential sentences in Russian and English). *Pro* of Russian impersonals behaves as an exclusion operator by blocking lexically non-empty elements in its position. At the same time, it shares with these elements the property of causing events.

Russian data provide us with examples of full causative structures with *pro* as the causer of events in A-I sentences. The manner in which semantic configurations are projected into syntax is viewed in this Chapter as the explanation for the formation of both Adversity-impersonal and the unaccusative structures. Intransitive variants of the verbs have been represented here as the lower part of the projection. Thus, the reason why Instrumental NPs are excluded from the unaccusative structures is made clear.

I have analyzed Dative and Accusative impersonal sentences, and proposed a unified analysis according to which both representations contain *pro* in a position which is normally reserved for +PPW agents. Dative subjects occupy the experiencer position, while Accusative subjects are in fact syntactic objects.

It was suggested that Nominative, Instrumental, Dative, and Accusative Case can be predicted in certain syntactic configurations: Nominative is found at the highest level, Instrumental or Dative at the intermediate, and Accusative at the lowest level in Russian syntax.

CHAPTER II. Pron in Russian and Hebrew, and SER/ ESTAR in Spanish

2.1 Introduction

In this Chapter I will argue for the existence of a generic marker of Agr in certain Russian sentences and discuss how its distribution is similar to that of the pronominal copula (Pron) in Hebrew. The semantic individual vs. stage-level distinction of predicates in general correlates with the presence vs. absence of a generic marker, correspondingly, both in Russian and in Hebrew.

Further, two distinct (long and short) forms of adjectival predicates in Russian will be analyzed.¹ Non-modificational adjectives behave differently in generic/ non-generic contexts, depending on their form. Russian short forms of adjectives are blocked when a generic marker is overtly present in a sentence.

Copular elements are viewed sometimes as a means of predication. Partee (1986,1987) and Williams (1993) argue that the meaning of *be* is 'apply function' inasmuch as it takes $\langle e \rangle$ and $\langle e, t \rangle$ arguments. *Be* is considered optional where the predicate can be applied to the subject directly (e.g. in SCs), and obligatory where it cannot. Thus, *be* is viewed as a mark of predication lacking semantic content. I will show that predication can be established directly in Russian (without N-Pron), and that N-Pron is required in identity sentences.

This Chapter also deals with a comparative analysis of copular elements in Russian, Hebrew, English, and Spanish. I will assume that a number of Spanish sentences with *SER* and *ESTAR* can be analyzed along the same lines as corresponding Russian and Hebrew sentences. In identity sentences, the role of Pron in Hebrew, N-Pron in Russian, copular *be* in English, and *SER* in Spanish is viewed as that of an obligatory syntactic element required for the purposes of predication relations.

¹ Babby (1975) discusses long and short forms of adjectives in detail.

2.2 Pron in Hebrew

The pronominal copula (Pron) of the Present Tense nominal sentences in Hebrew has the form of a nominative third person pronoun (1-3), while Past and Future Tense examples (4-5) pattern like their English counterparts in having a verbal copula. Pron agrees with the subject in person, gender, and number.

(1) Dani (hu) nexmad.
Dani-masc. Pron-3sg.masc. nice
'Dani is nice.'

(2) Dani *(hu) Mar Levin.
Dani -masc. Pron-3sg.masc. Mr. Levin
'Dani is Mr. Levin.'

(3) Rina (hi) nexmada.
Rina-fem. Pron-3sg.fem. nice
'Rina is nice.'

(4) Rina haita nexmada.
Rina be-Past nice
'Rina was nice.'

(5) Rina tihye nexmada.
Rina be-Fut. nice
'Rina will be nice.'

According to Doron (1983), Pron is located in Infl, the head of IP. This suggestion adopted in Rapoport (1987), Rothstein (1995, 2001), and Greenberg (1994, 1995) will help to establish a semantic role for Infl., or Agr. Chomsky (1995) dispenses with Agr as

having no content. However, Hebrew data allow us to suggest that in some languages Agr does have a specific content.

The Tense system of Hebrew allows specification for [+ Tense] and [- Tense] where the former indicates finite forms and the latter non-finite forms (Doron, 1983, Rothstein, 1995). [+Tense] automatically requires a specification for [$\pm$ Past]. The Present is considered unspecified for +Tense because it is neither [+Past] nor [-Past]. It is also not [-Tense]. As it is [$\pm$ Tense] which forces the projection of Inflection, I is optional in the Present, and matrix Small Clauses are possible in Hebrew. Thus, Pron is optional in (1). However, it is obligatory in identity sentences such as (2), which requires additional explanation.

Greenberg (1994) proposed that the presence vs. absence of Pron in Hebrew correlates with the predicate of the sentence being individual- vs. stage-level, respectively, as it corresponds to the level of permanence/ temporality expressed by the predicate. In the linguistic literature, 'permanence' is associated with individual-level predicates ('tendential stability' in Chierchia, 1995), whereas stage-level predicates exhibit 'transitory' properties. Following Kratzer (1989) and Chierchia (1995), i-level predicates might shift their property and become s-level when thought of as transitory, which is supported by the existence of variants with optional Pron in Hebrew.

Greenberg (1995) attributes the presence vs. absence of the pronominal copula to a generic vs. non-generic distinction of the sentences. Following Wilkinson (1991), Krifka (1987), and Krifka et al (1992), she assumes that bare plurals introduce variables which are bound by an implicit generic operator, e.g. in sentences of the kind *Orvim hem šxorim* (Ravens are black) where Pron *hem* (they) is obligatory.

I will extend this analysis to sentences such as (1), and regard the situation as generic on a personal (or individual) level in the presence of Pron. Genericity will be viewed as having a modal perspective, which means that if a situation is true in a world, it is true in either most of or in all the accessible worlds (or close situations). The semantics of sentences of the 'individual' kind will be clarified as we continue.

Greenberg maintains that sentences with obligatory +Pron where predicates are locative PPs (traditionally considered s-level) have a 'permanent' flavor (6):

(6) Paris ??(hi) be-carfat .

Paris she-3sg.fem. in France

'Paris is in France.'

Greenberg, 1995

Also, Obl.+Pron sentences where the second NP is a proper name can still have an episodic reading:

(7) Ha-mora ha-yom *(hi) Rina

the-teacher the-day she-3sg.fem. Rina

'The teacher today is Rina.'

Greenberg, 1995

Rothstein (1995) suggests that Pron is obligatory in cases such as (7) due to the structural properties of the identity sentences. This point will be elaborated on further in this Chapter.

The following examples also suggest that differences in the meaning (generic vs. non-generic, in its generally accepted sense) cannot always be accounted for as associated with the absence/ presence of Pron in sentences with optional Pron. Thus, (8) is considered to have an episodic, non-generic reading. Furthermore, no clear-cut explanation has been provided so far to define the difference in meaning between the two (+ Pron vs. -Pron) versions in (9).

(8) Dani hu student xa-Šana.

Dani he-3sg.masc. student the-year

'Dani is a student this year.'

(9) Dani (hu) xaxam.

Dani he-3sg.masc. clever

'Dani is clever.'

In order to shed new light on these problems, I will now turn to the distribution of certain Russian sentences that correlate with the distribution of Hebrew sentences with (+Pron).

2.3 Russian N-Pron

I will develop a theory based on the assumption that in modern Russian there is a covert marking with features similar to that of Pron in sentences such as (10) and (11). This marking (a Null Pronoun, or N-Pron) is expressed graphically as a “ - “, or a dash-sign in writing, is optional in (10), and obligatory in (11). Phonologically it corresponds to a pause similar to that in some cases of ellipsis.²

In contrast with Hebrew Pron, there are no Agreement features found in Russian, as is seen in example (10) and (11).

- (10) Marija (-) krasivaja.
 Marija-fem. N-Pron beautiful-fem.
 ‘Mary is beautiful.’

- (11) Marija *(-) graždanka Ivanova
 Marija-fem. N-Pron Ms. Ivanoff
 ‘Mary is Ms. Ivanoff.’

² It is observed in McCoy (1997) that Russian may employ ‘pronoun doubling’ with individual-level predicates in sentences such as (i) and (ii). However, such cases are rare.

(i) Kapron on xolodnyj.
 nylon-masc.sg. he-masc.sg. cold
 ‘Nylon is cold.’

(ii) Griša on jurist.
 Griša-masc.sg he-masc.sg. lawyer
 ‘Griša is a lawyer’.

While N-Pron is optional with some predicates such as *krasivaja* (beautiful) in (10), there is a class of predicates (stage-level in meaning) that cannot appear alongside this marker.

Yet another Russian copular element, a verbal copula, is represented by a verb *byt'* (be). It is obligatory in the Past and Future Tense, as is the case in Hebrew. Russian copula is in agreement with the subject in number (Future and Past Tense), person (Future Tense) and gender (Past Tense only). The Present Tense form *est'* (is/ are) of the verbal copula is obligatorily absent in nominal sentences in Modern Russian. Instead, it is represented either by N-Pron or by a verb *javljat'sja* (be-indeed) which appears in the official contexts only. A verbal copula with Tense features is present in (12) and (13), and absent in the Present Tense (14). However, either N-Pron or a V *javljat'sja* (be-indeed) is obligatory in sentences (15) and (16).

(12)a. On *(byl) krasivym.
 he be-masc.sg.Past handsome
 'He was handsome.'

b. Ona *(byla) krasivoj.
 she be-fem.sg.Past pretty
 'She was pretty.'

(13)a. On *(budet) krasivym.
 he be-3d.sg.Fut. handsome-masc.sg
 'He will be handsome.'

b. Ona *(budet) krasivoj.
 she be-3d.sg.Fut. pretty-fem.sg.
 'She will be pretty.'

(14)a. On (*est') krasivyj.
 he be-3d.sg.Pres. handsome-masc.sg.
 'He is handsome.'

b. Ona (*est') krasivaja.
 she be-3d.sg.Pres. pretty-fem.sg.
 'She is pretty.'

(15) On *(-) naš predstavitel' v Moskve.
 he N-Pron our representative in Moscow
 'He is our representative in Moscow.'

(16) On *(javljaetsja) našim predstavitelem v Moskve.
 he is-indeed our representative in Moscow
 'He is our representative in Moscow.'

Furthermore, the N-Pron is obligatory in Russian sentences that are considered general truths (17) and (18) and in identity sentences such as (19), where the second NP is referential.

(17) Sobaka *(-) drug človeka.
 dog N-Pron friend man
 'A dog is a man's friend.'

(18) Moskva *(-) krasivyj gorod.
 Moscow N-Pron beautiful city
 'Moscow is a beautiful city.'

(19) Moj drug *(-) Ivan Petrovič.
 my friend N-Pron Ivan Petrovič
 'My friend is Ivan Petrovič.'

In some sentences that show ambiguity between a referential and a predicative reading, N-Pron is optional (20, 21).

(20) On (-) student.
 he N-Pron student
 'He is a student.'

(21) Ona (-) studentka.
 she N-Pron student
 'She is a student.'

Examples (20) and (21) are disambiguated in (22 a) and (22 b) by means of a relative clause, which renders the sentences non-predicative. N-Pron is obligatory in referential sentences.

(22)a. On *(-) tot samyj student, o kotorom my govorili.
 he N-Pron that particular student about whom we talk-Past
 'He is the student we were talking about.'

b. Ona *(-) ta samaja studentka, o kotoroj my govorili.
 she N-Pron that particular student about whom we talk-Past
 'She is the student we were talking about.'

Pron is argued to represent a realization of Agreement features in Hebrew. In the case of N-Pron in Russian, no agreement features are found. Still, the suggestion is that Russian Pron is realized in Agr, for the following reasons.

There are several ways to prove that Pron is not a substitute for a verbal element, such as a Present Tense form of the verb *byť* (be). For example, the position of a negative particle in Russian sentences can be applied as a test for establishing the syntactic position of Pron.

Negation in Russian is expressed by means of a negative particle *ne* (not), which is always found verb-initially (23 a, b), unless it is a case of opposition (23 c).

(23)a. Ja ne lublju čaj.

I not like tea

'I do not like tea.'

b. *Ja ljublju ne čaj.

I like not tea.

'I do not like tea.'

c. Ja ljublju ne čaj, a kofe.

I like not tea but coffee

'I like not tea, but coffee.'

In sentences with N-Pron a negative particle *ne* obligatorily follows it (24): ³

³ Polish has a syntactic marker *to* (vs. *jest*-is) that behaves exactly like Russian Pron. The meaning of (i) with *to* is more general (never a professor) than that of (ii) with *jest* (not a professor now).

(i)a. Jan *to* (nie) profesor.

b. *Jan *nie to* profesor.

'Jan is not a professor.'

(ii)a. Jan (nie) *jest* profesorem.

b. *Jan *jest nie* profesorem.

'Jan is not a professor.'

(24)a. On - ne student.

he N-Pron not student

'He is not a student.'

b. *On ne - student.

he not N-Pron student

'He is not a student.'

c. Sobaka - ne drug človeka.

dog N-Pron not friend man

'A dog is not a man's friend.'

d. *Sobaka ne - drug človeka.

dog not N-Pron friend man

'A dog is not a man's friend.'

Yet another argument in favor of a non-verbal position of N-Pron is that it is not interchangeable with *byl* (be) of copular sentences where a nominal predicate is assigned Instr.

(25)a. *On - studentom.

he N-Pron student-Instr.

'He was a student.'

b. On byl studentom.

he be-Past student-Instr.

'He was a student.'

These and similar tests show that N-Pron is not a verbal element and that it belongs to Agr.

In the analysis of N-Pron, I will follow the suggestion (Rothstein, 1991) that the correct way to view the role of Pron in identity sentences is in terms of predication relations, and not in terms of Case-assignment or theta-roles. N-Pron is required in identity sentences as a means of establishing predication relations between two NPs, the second of which cannot be a predicate because it is referential.

Obviously, in the absence of reference, generation of Agr can be optional both in Russian and in Hebrew. In the analyses preceding the one presented in this thesis, the semantic difference depending on the presence vs. absence of Pron such as in (26 a) was not made explicit. Both Hebrew and corresponding Russian, sentences (26 b, c) differ in meaning. When N-Pron is absent, the property is attributed to the subject on a regular basis, while its presence imposes an additional meaning of being a general characteristic of a person.

(26) a. Dani (hu) nexmad.

Dani Pron nice.

'Dani is nice.'

b. Dani prijatnyj.

Dani nice

'Dani is nice.'

c. Dani - prijatnyj.

Dani N-Pron nice

'Dani is nice.'

In the latter case, a particular trait of a person's character is likely to be realized in all situations possible for this person. For example, when asked to describe a person with one word that would be his/ her generally characterizing description rather than one of his/ her personal traits, both (26 c) for Russian and the +Pron variant for Hebrew are the appropriate ones. Thus, the property of being *prijatnyj* (nice) can be viewed either as

realized in all the possible situations (+ N-Pron and +Pron sentences) or only in some of them (-N-Pron and -Pron sentences).

This analysis is not completely in agreement with Greenberg's suggestion concerning the nature of universal sentences. Greenberg accepts Kratzer's (1989) treatment of the ambiguity of universally quantified sentences. The implication is that the universal quantifier is ambiguous between 'accidental' and 'generic' readings. Universally quantified sentences, if they are true in one situation, will be true in all possible situations and also in all the counterparts of these situations in the accessible worlds. Sentences with 'accidental' readings can be true only in some and not in all situations. Greenberg assumes that sentences with Pron can also have two readings. However, if two readings are always available, it is not clear why there should be a restriction on the use of certain predicates in generic contexts. For example, if we follow Greenberg's analysis, sentences of the following type present a problem both for Hebrew and for Russian. These sentences, according to Greenberg, should have at least one (accidental) generic reading in the presence of Pron/ N-Pron, in a situation where *Dani* is occasionally happy 'to see us'.

(27) a. *Dani* (*hu) sameax lir'ot otanu.

Dani Pron glad to see us

'Dani is glad to see us.'

b. *Dani* (*-) rad videt' nas.

Dani N-Pron glad to see us

'Dani is glad to see us.'

Both predicates *sameax/ rad* (the property of being glad) are prohibited from appearing alongside (N-) Pron both in (27 a) and in (27 b).

In an attempt to account for the above-mentioned restrictions, I will discuss two adjectival predicative forms (long vs. short) in Russian and offer a new approach to the existing analyses.

2.4 Adjectival predicates in Russian

Most adjectival predicates in Russian have both long and short forms. Borrás (1971) states that “long adjectives...denote that a characteristic is present permanently in an object... Short adjectives on the other hand express the fact that a characteristic is...only the temporary condition of that object”. Hence, long and short forms of Russian adjectives behave differently in generic vs. non-generic contexts.

In this Chapter I follow the proposal in Stowell (1991) where a version of Larson's (1988) theory of phrase structure is assumed. According to Larson, predicates are allowed to project additional maximal projections to accommodate all their arguments, as a way to avoid generating two external argument positions. In light of some recent developments concerning two Spec positions (Chomsky, 1998), these earlier proposals may need to be revised.

I will suggest that Russian AP predicates can be distinguished as having a state-denoting argument, which parallels Davidsonian treatment of events (Davidson, 1967, Landman, 2000, Parsons, 1990). This approach accounts for the existence of two forms of Russian predicates such as in *On sčastlivyj* - long, or l-form (he is happy) and *On sčastliv* - short, or s-form *videt' nas* (he is happy to see us). Whereas both sentences attribute the property of ‘being happy’ to ‘him’, the latter attributes the property in question only with respect to a certain occasion. Thus, the predicate denoting ‘happiness’ is viewed as unsaturated, as it requires an argument of situations, i.e. ‘seeing us’.

The purpose of the analysis that will follow is to identify appropriate syntactic structures in order to illustrate the differences in behavior of Russian full and short form adjectival predicates.

2.4.1 Two forms of adjectives in Russian

As a rule, the long form of an adjective is to be found most commonly in the attributive, while the short form only in the predicative position. Borrás (1971) suggests that the complete identification of the adjective *bol'naja* (ill-l-form) with *ona* (she) is

expressed by the use of the full form, whereas the short form *bol'na* (ill-s-form) simply states that 'being ill' is a temporary characteristic (28, 29). In other words, the long adjective will, therefore, not be normally used in explicitly temporary contexts, while the short form is never found where the characteristic covers the whole period of existence of a particularized object.

- (28) Ona bol'naja.
she ill-l-form
'She is ill (a sick person, an invalid).'

- (29) Ona bol'na.
she ill-s-form
'She is ill (temporarily).'

However, predicates in their long form can also be used with the sense that the property is assumed to be s-level. Consider the following Russian sentences where the adjectival predicate *krasivyj* (handsome) appears as having two forms, l-form in (30) and s-form in (31). In Russian, the adjective is in agreement with the subject in gender and number.

- (30) On krasivyj.
he-masc.sg. handsome-masc.sg. (l-form)
'He is handsome.'

- (31) On krasiv.
he-masc.sg. handsome-masc.sg. (s-form)
'He is handsome.'

The property of being *krasivyj* (handsome) can be perceived as either permanent or transient. The transient interpretation arises in a situation where, for instance, people are dressed up for the occasion (32 a). Similarly, the property of 'being ill' can occasionally

be expressed with a full form of an adjective when a period of realization of this property is temporarily restricted (32 b).

- (32) a. *Deti segodnja krasivye (potomu čto prazdnik).*
children today beautiful-l-form (because holiday)
'The children are beautiful today because it's a holiday.'

- b. *Ona segodnja bol'naja.*
she today ill-l-form
'She is ill today.'

The following full-form predicates behave similarly in Russian: *umnyj* (clever), *vysokij* (tall), *oprjatnyj* (neat), *sčastlivyj* (happy), etc. These predicates also have both long and short forms.

2.4.2 Adjectives with long forms only

The class of Russian adjectives having two forms is limited. Quite a number of adjectives do not have a short form. In cases where the property is that of 'material' or 'quality', the s-form is excluded:

- (33)a. *Dom derevjannyj.*
house wooden-l-form
'The house is made of wood.'

- b. **Dom derevjanen.*
house wooden-s-form
'The house is made of wood.'

This group also includes adjectives such as *kamennyj* (made-of-stone), *mednyj* (brass) etc., and adjectives denoting color, especially when derived from the name of a substance, such as *kremovyj* (cream), *fioletovyj* (violet), *kofejnyj* (coffee-colored), *koričnevyyj* (brown, from *korica*- cinnamon), *šokoladnyj* (chocolate-colored) etc.

In Hebrew sentences with corresponding adjectival predicates Pron is obligatory (34), in contrast with the cases that involve transient properties such as *nexmad* (nice) where Pron is optional.

- (34) Hašul'xan *(hu) miets.
 table Pron from-wood
 'The table is made of wood.'

Pron cannot be considered obligatory with prepositional predicates in (34) because Pron appears as optional in (35):

- (35) Xavera šeli (hi) bamoskva.
 friend my Pron in-Moscow
 'My friend is in Moscow.'

The meaning imposed by the presence of Pron is that of permanence, namely that my friend lives in Moscow, otherwise the sentence denotes that my friend is in Moscow on a visit. Note that in Russian a corresponding Present Tense copula-less sentence has only a 'transient state' interpretation, (36) meaning that my friend is in Moscow on a temporary basis.

- (36) Moja podrug(a) (sejčas) v Moskve.
 my friend now in Moscow
 'My friend is in Moscow at present.'

A verbal predicate is necessary for the sentence to denote that a permanent property is attributed to the subject:

- (37) Moja podrugā živjot v Moskve.
my friend live-Pres. in Moscow
'My friend lives in Moscow.'

Thus, there is a correlation between the form of certain adjectival predicates that have only long forms and the expression of permanence in Russian. The property 'wooden' is stable and holds for most of (close to the real world) situations. A sentence with this predicate plus a temporal modifier is acceptable only in a fairy-tale context, or with a reference to a futuristic world where objects change their inherent properties on a daily basis (38 a). If N-Pron is regarded as a generic marker, then certain properties can be viewed as generic in its presence, in the sense that such objects are e.g. 'made of wood' in all accessible worlds (38 b).

- (38) a. (?) Stol segodnja derevjannyj.
table today wooden
'The table is made of wood (as of today).'

- b. Stoly - derevjannyje.
tables N-Pron wooden
'Tables are made of wood.'

- c. Stoly derevjannyje.
tables wooden
'Tables are made of wood.'

Sentence (38 b) will hold in a world where a property of being made of wood is a prerequisite for being a table. The predicate is generic in a sense that the property holds in

all possible worlds (Necessity Generic, NG).⁴ Otherwise, this property in (38 c) can be realized in some of the accessible worlds only ('Most' Generic, MG). Genericity is expressed by N-Pron (a 'dash' in writing, a pause in speech) which is obligatory in NG contexts.

2.4.3 Short vs. long form adjectival predicates.

Quite a number of adjectives - those that are delimited by an infinitive, a clause introduced by *čtoby* (in order to) or a prepositional phrase - are used only in their short form:

<i>gotov</i> - ready to,	<i>ravnodušen k</i> - indifferent to,
<i>soglasen</i> - agreeable to,	<i>gotov na/k</i> - ready to/ for,
<i>volen</i> - free to,	<i>gluh k</i> - deaf to,
<i>slab</i> - weak to,	<i>serdit na</i> - angry with, etc.

Short form predicates express a transient state of an object, appropriate only with reference to a particular point in time (situation), such as in (39) and (40). A property of 'readiness' is attributed to the subject on a 'lasting for a short time' basis, which is clear from (40 a). In many cases, the delimiting phrase is obligatory, unless it is understood from the context (40 b, c).

- (39)a. Doklad *gotov*.
 report ready-s-form
 'The report is ready.'

⁴ The distinction of two kinds of generic contexts offered here follows Carlson's (1977, 1989) analysis of two kinds of generic sentences with bare NPs. *Horses are mammals* does not admit of exceptions ($\neq$ *Most horses are mammals*); in contrast, *Horses are good pets* does ($=$ *Most horses are good pets*). The former type will be referred to as Necessity-Generic (NG) and the latter as Most-Generic (MG) in this thesis.

(39)b. *Doklad gotovyj.

report ready-l-form

'The report is ready.'

(40)a. Sup vseгда gotov *(k tvoemu priходу).

soup always ready-s-form to your coming

'By the time of your coming home the soup is always ready.'

b. Ivan gotov *(idti na vstreču).

Ivan ready-s-form go to meeting

'Ivan is ready to go to a meeting.'

c. Ivan soglasen *(s nami)/ *soglasnyj (s nami).

Ivan agreeable-s-form with us agreeable-l-form with us

'Ivan agrees with us.'

Adjectives denoting personal characteristics generally have both long and short parallel forms, such as in (41 a, b) and (42 a, b), respectively. Short forms of adjectives obligatorily require NP *svoim postupkom* (his deed) in (41 b) and PP *ko mne* (to me) in (42 b).

(41)a. Džon gordyj.

John proud-l-form

'John is proud (a proud person).'

b. Džon gord *(svoim postupkom).

John proud-s-form his deed

'John is proud of his deed.'

(41)c. Džon (-) gordyj.

John N-Pron proud-l-form

'John is proud.'

d. Džon (*-) gord svoim postupkom.

John N-Pron proud-s-form his deed

'John is proud of his deed.'

e. *Džon gord.

John proud-s-form

'John is proud.'

f. *Džon gordyj svoim postupkom.

John proud-l-form his deed

'John is proud of his deed.'

(42)a. Džon dobryj.

John kind-l-form.

'John is kind.'

b. Džon dobr *(ko mne).

John kind-s-form to me

'John is kind to me.'

c. Džon (-) dobryj.

John N-Pron kind-l-form

'John is kind.'

(42)d. Džon (*-) dobr ko mne.

John N-Pron kind-s-form to me

'John is kind to me.'

e. *Džon dobr.

John kind-s-form.

'John is kind.'

f. *Džon dobryj ko mne.

John kind-l-form to me

'John is kind to me.'

In these and similar sentences, there is a difference in meaning depending on a choice of the predicate. Sentence (41 a) states that 'being proud' is a permanent personal characteristic of John. On the other hand, (41 b) might imply that John is a very humble person indeed, but this personal feature does not prevent him from 'being proud' in a certain situation; although, this might be the only situation in his whole life where he will exhibit this particular property.

Examples in (42 a, b) can be analyzed along the same lines. The prediction that N-Pron will appear only in sentences that might imply permanence and not in sentences that attribute a property to a certain situation or a state holds for sentences (41 c, d) and (42 c, d). Moreover, short and long forms are not interchangeable. Only one particular form may be used to express one particular meaning ((41 e, f) and (42 e, f)).

Thus, the form of the Russian predicates being discussed here in general correlates with the level of permanence/ transience expressed by these predicates. Furthermore, if we assume that the two predicative forms are in fact the expression of two different levels, then the predicates that usually express stable properties must be able to shift their level to s-level. The property of 'being proud', for instance, can hardly be viewed as two different levels, as it is one and the same characteristic feature that can be realized either

episodically or on a permanent basis. In addition, even the most stable properties such as wooden can be understood as episodic in a fairy-tale context:

(43) *Segodnja etot stol derevjannyj, a zavtra volšebnica prevratit ego v kamennyj.*

‘Today this table is wooden, but tomorrow a witch will turn it into a stone one.’

As is noted in Dowty (1971), “the number of predicates that cannot be tensed decreases”, such as in (44).

(44) *Anna segodnja blondinka.*

Ann today blond

‘Ann is blond today.’

All of the above leads one to assume that a large number of predicates originally referred to as i-level can be understood episodically within the appropriate context. Having said that, where there is no explicit distinction concerning two natural classes (i- and s-level), we run into a serious problem while trying to classify the predicates.

I will proceed to review the assumed (Greenberg, 1995) theory of generic manifestation in Hebrew in order to make certain points clear with respect to the Russian two-form predicates as corresponding to $\pm$ Pron forms in Hebrew.

Greenberg bases her analysis on research done by Rapoport (1987) and Rothstein (1995) on the syntax of Hebrew nominal sentences. The conclusion is that there is a structural difference between +Pron and -Pron sentences, namely Pron realizes the Infl. node. Thus, +Pron sentences are full clauses and -Pron sentences are ‘matrix small clauses’ (SC).

According to Rothstein (1995), in predicative sentences the subject stays in XP-internal position when Pron is absent and it is raised to the Spec of IP when the Infl. node is realized by Pron. Consequently, generic vs. non-generic interpretations correspond to the variants with external vs. internal subjects.

In contrast, Diesing (1992) claims that subjects of s-level predicates are generated at Spec XP while those of i-level predicates are generated at Spec IP. Diesing stresses, however, that the stage-/ individual-level distinction shows itself even in SCs.

The structure suggested by Diesing is rigid and does not allow one to use the 'stable' predicates episodically, as the subjects of i-level predicates cannot lower down to Spec XP. However, it is quite common to use these predicates episodically, e.g. in (44).

Diesing suggests that the subjects originating within XP can always be raised to Spec IP to be interpreted generically. However, Russian s-form predicates in question allow only non-generic interpretation of their subjects. For example, (45) shows that John's state of 'being glad' requires a certain situation, namely that of 'seeing us':

- (45) Džon rad *(videt' nas).
 John glad-s-form to see us
 'John is glad to see us.'

Russian sentences with s-form predicates of this kind correspond to those in Hebrew in which Pron is obligatorily absent (46 a, b).

- (46)a. Moti (*hu) sameax lir'ot otanu.
 Moti Pron glad to see us.
 'Moti is glad to see us.'

- b. Moti (*hu) muxan lalexet itanu.
 Moti Pron ready to go with-us
 'Moti is ready to go with us.'

Obviously, s-form adjectives may appear as matrix predicates only. This conclusion is supported by the following data. First of all, the s-forms of adjectives never appear in a position of a modifier (cf. (47 a) and (47 b)).

(47)a. Poslušnyje deti radujut nas.
 obedient-l-form children make-happy us
 'Obedient children make us happy.'

b. *Poslušny deti radujut nas.
 obedient-s-form children make-happy us.
 'Obedient children make us happy.'

Next, secondary predicates (*utomljonnyj*, *dovol'nyj*) appear only in l-form (48).

(48)a. Džon vernulsja utomljonnyj, no dovol'nyj.
 John returned tired-l-form but satisfied-l-form
 'John returned tired but satisfied.'

b. *Džon vernulsja utomljon, no dovolen.
 John returned tired-s-form but satisfied-s-form
 'John returned tired but satisfied.'

It is possible that a restriction on the number of events/ states a predicate is associated with is involved here. The event of return excludes the appearance of a second predicate associated with another event/ state, such as *videt' nas* (to see us) in *On rad videt' nas* (he is happy to see us). Thus, we cannot have a sentence such as *On vernulsja rad videt' nas* (lit. *He returned glad to see us).

We may conclude that there is a class of adjectives in Russian that can be used only as matrix predicates. These are the predicates with short forms, such as *rad* (glad), *sčastliv* (happy) etc. The properties of sentences with these predicates require a particular temporal location for their realization. The contexts of such sentences are perceived as MG on a personal level (they may be true for most possible situations), and N-Pron cannot appear in them.

In the sentences with predicative I-forms of adjectives, a subject may raise to the Spec of AgrSP where the Agr node is realized by N-Pron. Such sentences correspond to Hebrew sentences with Pron, and are considered N(eccessity) G(eneric) (true in all situations). Otherwise, the context is M(ost) G(eneric) and N-Pron is absent.

As was shown, there is a group of predicates for the expression of 'stable' properties such as 'quality' in Russian that have only long forms. However, these properties can be found in sentences either with or without N-Pron, depending on whether the property in question is viewed as a characteristic of an object or it is realized on a temporary basis.⁵

Thus, most adjectival predicates with long forms in Russian are realized both in temporarily restricted and non-restricted contexts, while certain short-form predicates require a situational indication for the realization of their properties.

2.5 Syntactic structures of Russian and Hebrew sentences with adjectival predicates

As mentioned before, there is a problem with Diesing's suggestion that subjects of s-level predicates are generated at Spec XP while those of i-level predicates are generated at Spec IP. Russian (-N-Pron)-sentences are presumably Small Clauses, but both individual- and stage-level predicates can appear in them. Also, i-level predicates can undergo level-shift depending on the interpretation.

According to Fillmore (1968), clauses consist of two parts: a modality constituent and a proposition constituent. Then Infl corresponds to the former and a Small Clause to the latter. Saturation of a projected by Infl I' node is required in sentences where Infl takes SC as its complement, and a SC subject is raised to [Spec, IP]. We have already seen that both in Russian and in Hebrew a Small Clause subject appears in the Spec of IP depending on the interpretation.

In this part of the thesis I follow a suggestion that the subjects of all predicates are generated XP-internally (Koopman and Sportiche 1991, Kuroda 1988, Borer 1986,

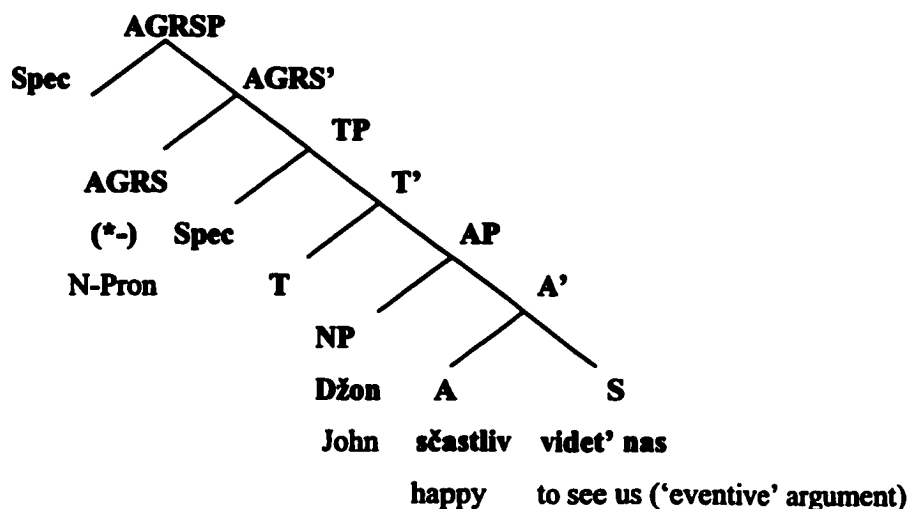
⁵ In Kennedy's (1997) theory, adjectives such as *derevjannyj* (wooden) are referred to as rigidly non-scalar.

among many others). However, the presence of a 'state' argument provides an account for a stage- vs. individual-level behavior of these predicates. Now we can easily explain why certain short-form adjectival predicates in Russian – those that require an obligatory (mostly explicit) 'state' - argument – cannot be used in the sentences with N-Pron (a marker of generics). This accounts for the existence of two forms of Russian predicates such as in *On sčastlivyj-l-form* (he is happy) and *On sčastliv-s-form videt' nas* (he is happy to see us). The presence of a the 'eventive' argument (*videt' nas*) is necessary in the latter case and not in the former. I call those arguments 'state', or 'eventive' (or 'state'-arguments) because they are not the actual events of e.g. 'seeing us', but represent a potential situation in which the event in question can possibly take place. The 'eventive' argument of s-forms in Russian is closer to the head and saturates the predicate of states first.

The following structures are proposed in order to illustrate the discussed differences in behavior of Russian long and short form adjectival predicates. In my analysis, Pron in Hebrew and N-Pron in Russian are a realization of Agr.

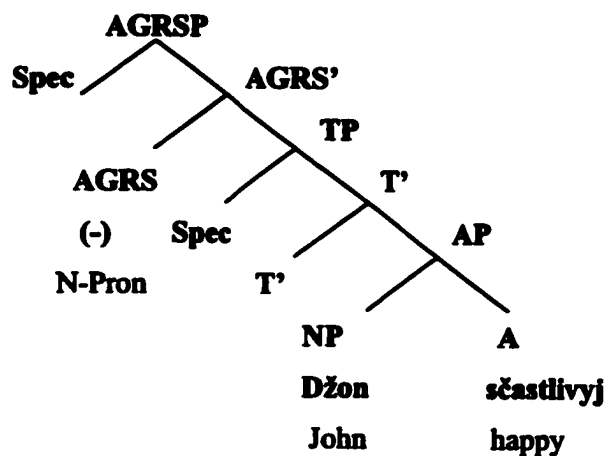
(49)a Džon (*-) sčastliv videt' nas. Russian
 John N-Pron happy see us.
 'John is happy to see us.'

b.



(50)a. Džon (-) sčastlivyj.
 John N-Pron happy-l-form
 'John is happy/ a happy person.'

b.



In addition, (51) and (52) sentence structures are proposed for Hebrew sentences, (51) corresponding to those with s-form predicates and (52) to those with l-form predicates in Russian.

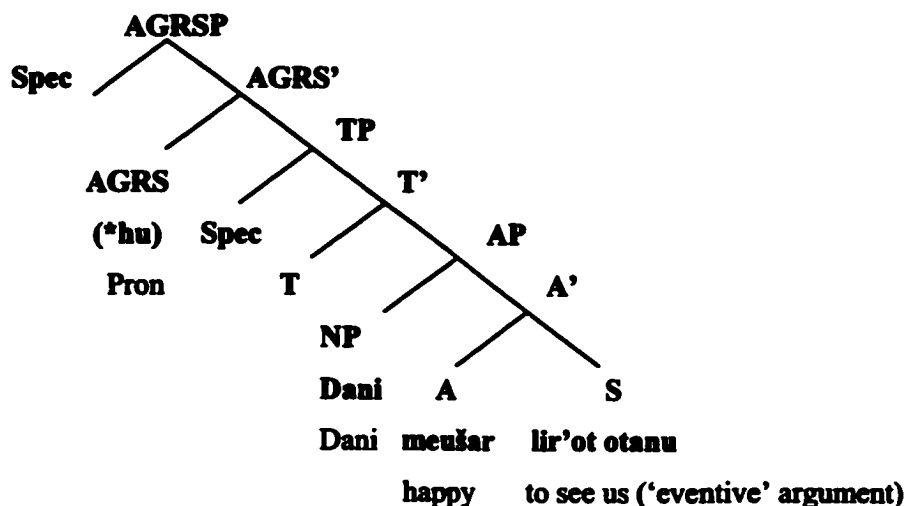
(51)a. Dani (*hu) meušar lir'ot otanu.

Hebrew

Dani Pron happy to see us

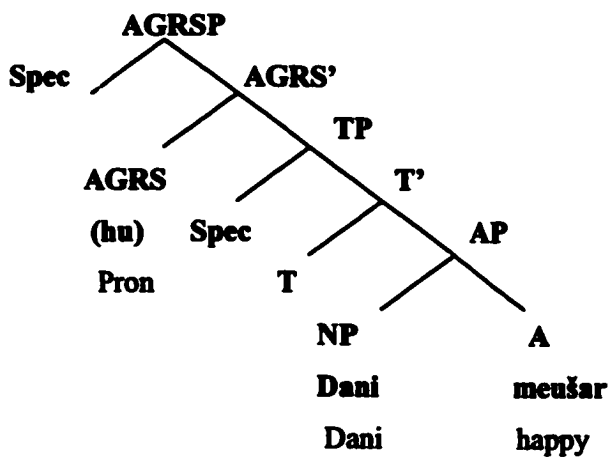
'Dani is happy to see us.'

(51)b.



(52)a. Dani (hu) meušar.
 Dani Pron happy
 'Dani is happy/ a happy person.'

b.



The analysis presented here is in line with the conclusions drawn in Chapter V where I develop the idea of Genericity and Specificity feature-checking. It will be shown that the Genericity feature is checked in [Spec, AGRSP] and the Specificity feature in [Spec, TP]. NP-movement to [Spec, TP] is justified for Specificity feature-checking and the EPP

feature-checking reasons in (49) and (51). Genericity feature-checking is made possible by NP-movement to [Spec, AGRSP] in (50) and (52).⁶

2.6 Identity sentences in Hebrew and Russian

Greenberg (1995) suggests that identity sentences (e.g. *John is Mr. Smith*) must be considered generic. She notes that Pron is obligatory in such sentences. Rothstein (1995) claims that the appearance of Pron is due to the structural differences between identity and predicative sentences.

These structural differences show up in Russian as well - as should be expected on the assumption that there is a syntactic element that serves the purpose of establishing predication relations. In Russian predicative sentences such as (53), predication can be established directly when the predicate is in the Nominative. By contrast, V *javljat'sja* (be-indeed) is obligatorily absent in (54).

(53) On krasivyj/ *krasivym.
 he-masc.sg.Nom. handsome-masc.sg.Nom./-Instr.
 'He is handsome.'

(54) On (*javljaetsja) krasivyj.
 he-masc.sg.Nom. be-indeed-3d.sg.Pres. handsome
 'He is handsome.'

In contrast, in Russian identity sentences one of N-Pron or *javljat'sja* (be-indeed) is obligatory (see also (15) and (16)). Sentences with *javljat'sja* (be-indeed) are grammatical only when the second NP is referential (55).

⁶ For further details concerning Genericity and Specificity feature-checking see Chapter V.

(55) On *javljaetsja* (??*vračom*) / *našim vračom* / *tem samym vračom*.
 he is-indeed-3d.sg. doctor / our doctor / that particular doctor
 ‘He is a doctor/ our doctor/ that particular doctor.’

When the NP *vrač* (doctor) is a property and not a particular representative of the set of doctors, it cannot be subcategorized for by the verb *javljat'sja* (be-indeed) in (55). However, when *vrač* (doctor) is a representative included in the set of professions and thus reference is present to a certain extent, the sentence with *javljat'sja* is acceptable (56).

(56) On *javljaetsja* *vračom*, a ne *inženerom*.
 he is-indeed-3d.sg. doctor but not engineer
 ‘He is a doctor, not an engineer.’

Thus, the verb *javljat'sja* (be-indeed) can be compared to *be* of identity sentences in that it takes a referential NP as its complement. However, Russian V is not semantically empty.

Partee (1986,1987) and Williams (1993) argue that *be* in English actually means ‘apply function’. *Be* is optional where the predicate can be applied to the subject directly. In *We consider Mary pretty* the predicate *pretty* can be applied directly to the subject *Mary* in a Small Clause *Mary pretty*. Otherwise, it is obligatory as it serves as a trigger to raise the proper name to <*e*, *t*> level. Thus, *be* is regarded as a mark of predication with no semantic content. *Be* triggers the type-raising function that applies to the type <*e*> with the resulting <*e*, *t*> and thus allows it to be predicated of a subject in identity sentences.

In contrast, in cases with the type <*e*, *t*> in SC *Mary pretty* in *We consider Mary pretty*, *pretty* is a predicate in itself and does not require raising. In *Mary is pretty*, *pretty* is a predicate but *be* is still required. In the light of the theory presented in this thesis, it may be tentatively suggested that *be* is obligatory in English to satisfy Tense requirements.

As a way of developing the approach suggested in Partee (1986,1987) and Williams (1993), I will assume that in Russian identity sentences Agr selects for an NP. The NP is in fact a combination of two NPs that require a relation of equality to be established between them, such as *he=Mr.Smith* in *He is Mr. Smith* (NP[he, Mr.Smith]). In identity sentences N-Pron is obligatory (57), in contrast with adjectival predicative sentences where it is optional (58).

(57) Ona *(-) Anna Ivanovna.
 she N-Pron Anna Ivanovna
 ‘She is Anna Ivanovna.’

(58) Ona (-) krasivaja.
 she N-Pron beautiful
 ‘She is beautiful.’

On the grounds of similarities in distribution of Pron and N-Pron in Hebrew and Russian, it can be shown that both are required in identity sentences (59 a, b) and optional in predicative sentences (60 a, b). On the other hand, (60 d, e) pattern together with (59 a, b) in having Agr overtly expressed.

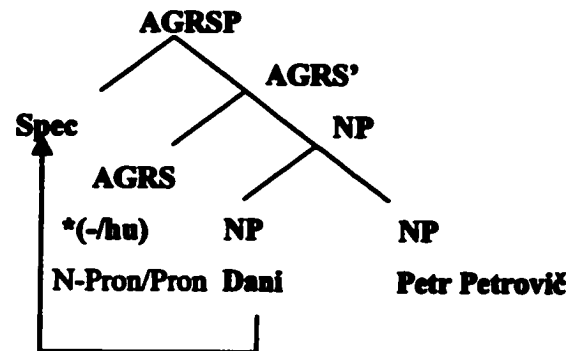
(59)a. Dani *(-) Pjotr Petrovič.
 Dani N-Pron Pjotr Petrovič
 ‘Dani is Pjotr Petrovič.’

Russian

b. Dani *(hu) Pjotr Petrovič.
 Dani Pron Pjotr Petrovič
 ‘Dani is Pjotr Petrovič.’

Hebrew

(59)c.



(60)a. Dani krasivyj. Russian

Dani handsome

'Dani is handsome.'

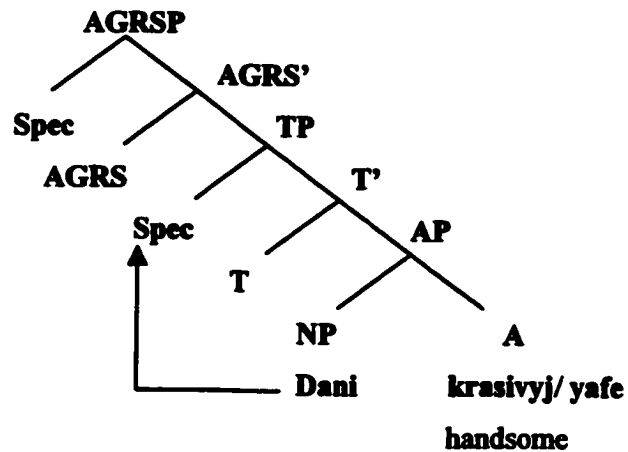
b. Dani yafe.

Hebrew

Dani handsome

'Dani is handsome.'

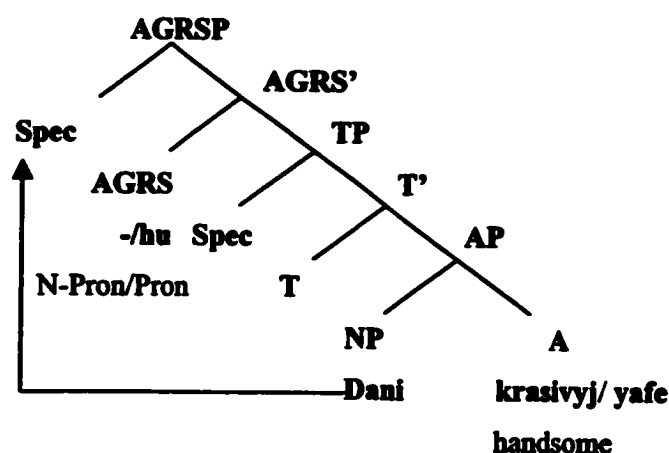
c.



(60)d. Dani - krasivyj
 Dani N-Pron handsome
 'Dani is handsome.' (In general).

e. Dani hu yafe.
 Dani Pron handsome
 'Dani is handsome (in general). '

f.



Following the assumption that N-Pron constituent in Russian is in fact a direct realization of Agr, it is clear why objects in the identity +N-Pron sentences display Nominative Case. Verbs do not assign Nominative Case to their objects in Russian; thus, the NP *Ivan Petrovič* in (61) is not a complement of a verbal element but of Agr.⁷ Nominative is assigned to NP by agreement with the subject.

(61) On - Ivan Petrovič/ *Ivana Petroviča/ *Ivanom Petrovičem.
 he-Nom. N-Pron Ivan Petrovič-Nom./ Ivan Petrovič-Acc./ Ivan Petrovič-Instr.
 'He is Ivan Petrovič.'

⁷ See the structure for (59) where NP *Dani* is assigned Nom. in [Spec, AgrSP].

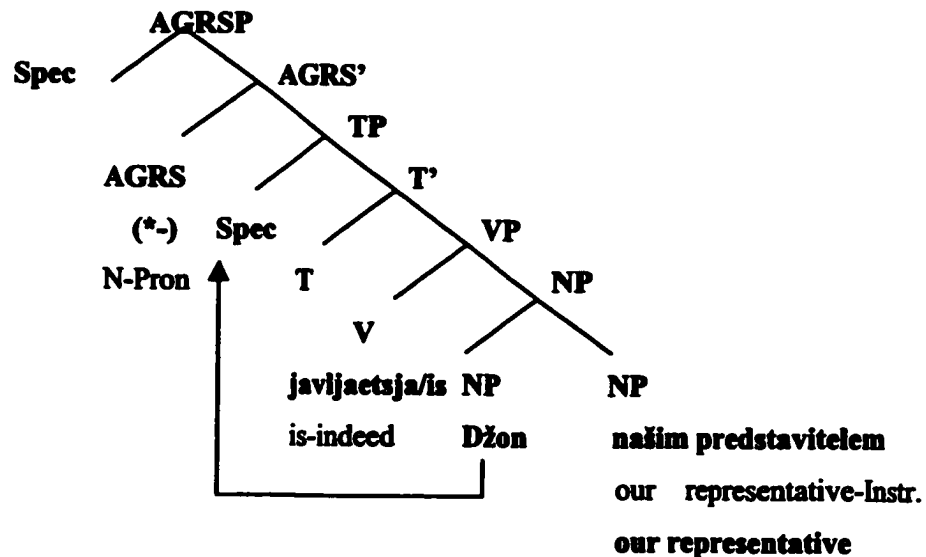
Examples (62 a, b) show that the verb *javljaet'sja* (be-indeed) obligatorily assigns Instrumental Case to its complement; N-Pron is excluded. The structure is compared to the corresponding English variant in (62 c).

(62)a. Džon (*-) javljaetsja našim predstavitelem
 Džon N-Pron is-indeed our representative-Instr.
 'John is our representative.'

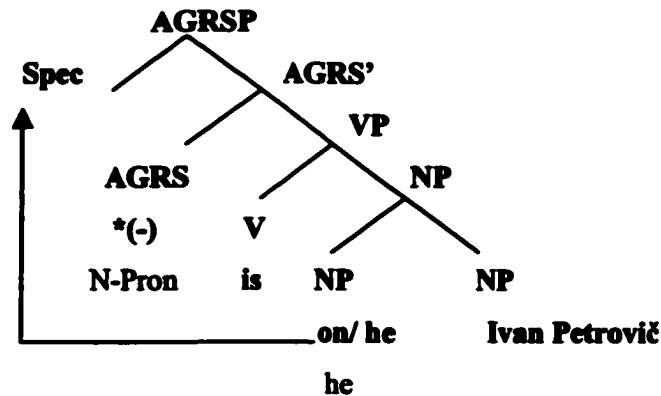
b. *Džon (-) javljaetsja naš predstavitel'.
 Džon N-Pron is-indeed our representative-Nom.
 'John is our representative.'

c. John is our representative.

d.



(62)e.



The position of *javljat'sja* in Russian is that of *be* in English (62 d). The difference between Russian and English variants is that *našim predstavitelem* (our representative) is overtly marked by Instrumental Case in Russian. The second NP in $NP[NP [Džon] NP [našim predstavitelem]]$ is assigned Instrumental Case by the verb *javljat'sja* (be-indeed). The first NP is assigned Nominative Case in [Spec, TP]. By contrast, in identity sentences it moves to [Spec, AgrSP] both in Russian and in English.(62 e).

Russian N-Pron is a realization of Agr, and not of V. This answers the question of why objects in the identity +N-Pron sentences display Nominative Case. Verbs do not assign Nominative Case to their objects in Russian; thus, the NP of identity sentences is not a complement of a verbal element but of Agr. Predication relations cannot be established directly between two referential NPs in Russian. In addition, identity sentences may be considered generic (NG) in a sense that identities are preserved across worlds. It is also possible that referential NPs of identity sentences are treated as bundles of (categorical) features with a relation of identity established between them.

2.7 Distribution of SER and ESTAR. Stage- and individual-level predicates in Spanish and Portuguese

The roles of *SER* and *ESTAR* are extensively discussed in the linguistic literature (Costa 1998, Delbecque 1997, Schmidt 1992, Lema 1992, Clements 1988, Falk 1979,

Roldán 1974). In this part of the Chapter I will support the idea that the role of copular *SER* in Spanish is similar to that of *be* in English identity sentences. As was discussed above, in identity sentences *be*, Pron, and N-Pron take a constituent that consists of two NPs with a relation of identity established between them. I will compare the roles of *SER*/*ESTAR*, Pron, and N-Pron, and show that English, Spanish, Hebrew, and Russian copulas can be analyzed along similar lines.

Copular elements *SER* and *ESTAR* are not interchangeable in Spanish identity sentences (63 a), in contrast with predicative sentences (63 b) where both *SER* and *ESTAR* can be used depending on the context.

(63)a. Carmen es/ (*está) la señora de García.
 Carmen SER-3d.sg./ESTAR-3d.sg. the Mrs. of Garcia
 'Carmen is Mrs. Garcia.'

b. Carmen es/ está elegante.
 Carmen SER-3d.sg./ESTAR-3d.sg. elegant
 'Carmen is elegant.'

Spanish identity sentences with *SER* in general correspond to sentences with Pron in Hebrew (64) and those with N-Pron element with no semantic content in Russian (65).

(64) Dani *(hu) Mar Levin.
 Dani Pron Mr. Levin
 'Dani is Mr. Levin.'

(65) Dani *(-) graždanin Levin.
 Dani N-Pron Mr. Levin
 'Dani is Mr. Levin.'

Costa (1998) attributes the difference between *SER* and *ESTAR* in Portuguese to the contrast between permanent (66) and temporary (67) qualities expressed by the predicate of a sentence.

(66) A Maria é/ (*está) portuguesa.
'Maria is Portuguese.'

Portuguese

(67) O café está/ (*é) pronto.
'Coffee is ready.'

Costa, 1998

This analysis runs into problems as both *SER* and *ESTAR* can be found in sentences with permanent/ temporary types of predicates:

(68) Se ele fiser isso, é louco.
'If he does this, he is a fool.'

Portuguese

(69) Este homem está vivo.
'This man is alive.'

Costa, 1998

It can be argued, however, that sentence (68) could be interpreted as "if he does this that means he is a foolish person (on a permanent basis)", thus the predicate *louco* (fool) is of a permanent type. In (69), the predicate *vivo* (alive) that is in general of a permanent type shifts its property to a transitory one in a particular context. The context arises when the property is attributed to entities that have a tendency to pass into a different state, such as human beings, or animates in general. By comparison, the same is true of a property *tall* when it shifts its permanent property in *Mary is tall today because she is wearing high heels*. This is also the case with the predicate *muerto* (dead) in Spanish, as it can be used either in a transient (70 a) or in a permanent (70 b) context.

(70) a. Juan está muerto.

Juan estar-3sg. dead

‘Juan is dead.’

b. Estas lenguas son (lenguas) muertas.

these languages ser-3pl. languages dead

‘These are dead languages.’

To repeat, certain types of adjectives behave differently in generic vs. non-generic contexts both in Russian and in Hebrew, where Pron and N-Pron are viewed as markers for genericity. For example, while for some predicates both Pron and N-Pron are optional, there is a class of predicates expressed by short forms of adjectives in Russian that cannot appear alongside this marker, as they are obligatorily ‘eventive’ in meaning. These predicates correspond to ‘temporary’ predicates in Spanish used alongside *ESTAR* such as *enfadado*, *cansado*, *abierto* etc. Lujan (1981) gives a short list of adjectives used either with *SER* or with *ESTAR*:

(71) *SER*-adjectives

cauto	cautious
discreto	discreet
inteligente	intelligent
prudente	prudent
sabio	wise
cortes	polite
capaz	capable
etc.	

ESTAR-adjectives

vacio	empty
lleno	full
contento	content
satisfecho	satisfied
ausente	absent
harto	fed-up
descalzo	bare-footed

I will argue here that adjectives of *SER*-group can be ‘relativized’ contextually; for example, *inteligente* (intelligent) which is viewed in general as a permanent quality can appear alongside *ESTAR* in a context such as ‘he is displaying his intelligence’.

Meanwhile, adjectives of *ESTAR*-group, which are considered inherently 'relativized' according to the analysis presented in this paper, are ungrammatical with *SER* in any context. These are the unsaturated predicates of states that require an 'eventive' (state) argument for their realization.

This analysis is in agreement with the one presented in Clements (1988), which views sentences with *SER* as instantiations of belonging to a certain class (a 'non-relativized' quality here), while *ESTAR* indicates that the state is viewed as the one in connection with a certain event (a 'relativized' quality). Thus, in (72), Jacinta belongs to a class of unmarried women, while in (73) the unmarried state of Jacinta is in some connection with another possible event such as being married.

(72) Jacinta es soltera.

'Jacinta is single.' (a classification)

(73) Jacinta está soltera.

'Jacinta is unmarried.' (a comparison)

According to Roldán (1974), a sentence having *ESTAR* is normally understood as if some change has taken place. This also fits into a theory that views properties as either 'generic' or 'relativized, i.e. as having some relation to a certain present, past, or future situation. Thus, example (74) expresses an idea that is generally true, while in (75) an impression of the beach is valid for right now, but not necessarily for always.

(74) Esta playa es buena.

'This is a good beach.'

(75) Esta playa está buena.

'This beach seems good/ The beach is good today.'

Roldán, 1974

Quite a number of generic adjectives where a predicate with *SER* implies a similar predicate with *ESTAR* can be 'relativized' (76), but the inverse implication does not hold (77) (Lujan, 1981). The difference can be attributed to two distinct types of predicates. Predicates of a 'generic' kind that appear with *SER* such as in may be 'relativized' into unsaturated predicates that require a 'state' argument, i.e. a relation to a certain event/ point in time (e.g. elegant in general vs. elegant as of a certain moment in (76)). In contrast, *ESTAR*-predicates in (77) require saturation and cannot appear as 'de-relativised' with *SER*.

(76) <i>ser gordo</i> → <i>estar gordo</i>	to be fat
<i>ser elegante</i> → <i>estar elegante</i>	to be elegant
<i>ser normal</i> → <i>estar normal</i>	to be normal

(77) <i>estar gordo</i> +> <i>ser gordo</i>	to be fat
<i>estar elegante</i> +> <i>ser elegante</i>	to be elegant
<i>estar normal</i> +> <i>ser normal</i>	to be normal

Thus, only generic, or conceptual, properties can be 'relativized', but not vice versa. Remember that in Russian properties expressed by short-form adjectives cannot be used in certain 'generic' contexts, but long-form adjectives can be used in both. Genericity - as already discusses - is viewed here as having a modal perspective in the sense that if a property is true of a person/ object, then it is true in either all possible situations (NG, Necessity-Generic) or most possible situations (MG, Most-Generic) for that person/object. Similarly, the distinction is that of *SER* relating to concepts and judgements (and imposing a categorization), on the one hand, and *ESTAR* being associated with immediate perceptions and their realizations, on the other (following Delbecque, 1997, Falk, 1979).

Both Spanish and Portuguese require *SER* in generic (or conceptual) sentences. For example, a property of 'being sour' can be attributed to lemons on a permanent basis

(*SER*-sentence) and to apples on a temporary basis (*ESTAR*-sentence), which can be seen in Portuguese examples (78 a) vs. (78 b) and (79 a) vs. (79 b).

(78) a. Os limões são ácidos. Portuguese
 'The lemons are [SER] sour.'

b. *Os limões estão ácidos.
 'The lemons are [ESTAR] sour.'

(79) a. *As maçãs são ácidas.
 'The apples are [SER] sour.'

b. As maçãs estão ácidas.
 'The apples are [ESTAR] sour.' Costa, 1998

Remember that generic vs. non-generic distinction correlates with the presence vs. absence of copulas both in Russian (80) and in Hebrew (83). Pron and N-Pron are optional in sentences where the predicate can be applied directly rendering the sentence non-generic, on a personal level (80-81). Similarly, Spanish *SER* and *ESTAR* are interchangeable depending on either generic or non-generic character of the sentence, respectively. Thus, sentence (82) can be viewed as a generic variant of (83).

(80) Dani (-) prijatnyj. Russian
 Dani. N-Pron nice
 'Dani is nice.'

(81) Dani (hu) nexmad. Hebrew
 Dani Pron nice
 'Dani is nice.'

(82) Juan es gordo.

Spanish

‘Juan is fat.’

(83) Juan está gordo.

‘Juan is fat.’

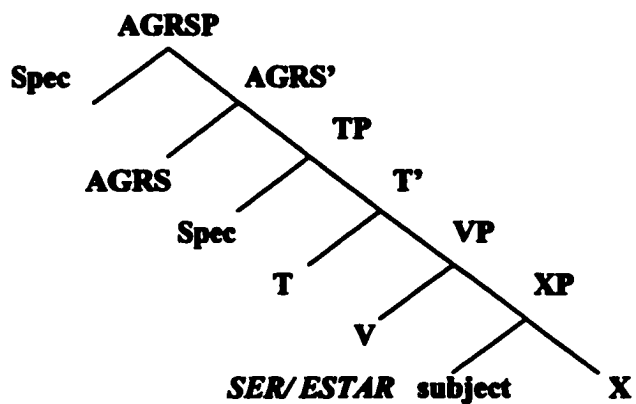
The structural analysis of sentences with Pron in Hebrew and N-Pron in Russian presented in this thesis can be applied to sentences with *SER* in Spanish. Lema (1992) expresses the idea that *SER* and *ESTAR* are generated under different nodes. In contrast, the approach undertaken here suggests that predicate movement for feature-checking reasons accounts for the semantic differences of sentences with *SER/ESTAR*.⁸

The position of *SER* and *ESTAR*, as well as that of *javljat'sja* (be-indeed) in Russian and *be* in English, is a regular verbal position. Hebrew lacks a verbal element in corresponding sentences; nevertheless, the distinction between two types of predicates is preserved. Thus, Vs *SER* and *ESTAR* are sensitive to the type of complement they subcategorize for. Identity sentences that employ *SER* can be considered modal in a sense that identities are preserved in all possible worlds.

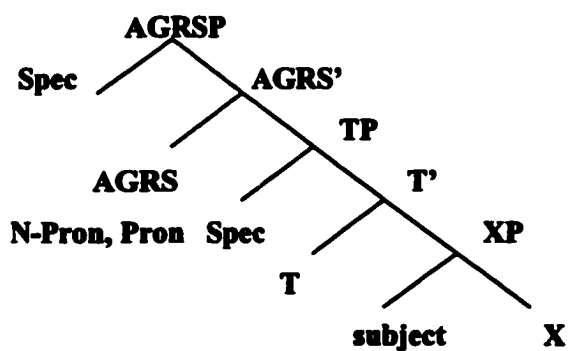
The following structures illustrate the syntactic position of *SER* and *ESTAR* in Spanish (84), N-Pron in Russian and Pron in Hebrew (85), *javl'at'sja* (be-indeed) in Russian (86), and *be* in English (87).

⁸ See Chapter V for details.

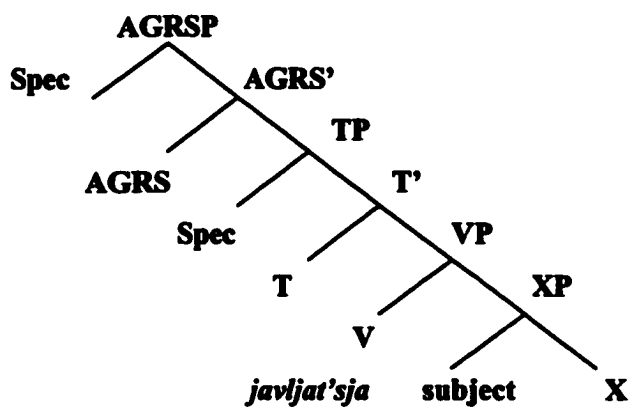
(84) Spanish



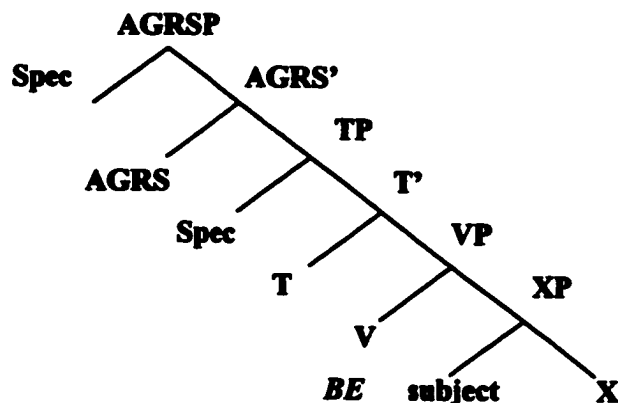
(85) Russian N-Pron, Hebrew Pron



(86) Russian *javljat'sja* (be-indeed)



(87) English



To conclude, there is a structural uniformity in English, Russian, Hebrew, and Spanish. The analysis presented here accounts for the differences in interpretation of generic and non-generic sentences. Genericity is viewed as a property that may appear on a personal level, with respect to a certain individual. Identity sentences are analyzed as belonging to (Necessity-) generic sentences, where identities are preserved across worlds.

2.8 Summary

In this Chapter I have argued for the existence of a covert syntactic marking (Null Pron, or N-Pron) in modern Russian. I have shown that the presence of N-Pron correlates with that of the pronominal copula Pron in Hebrew sentences, and corresponds to a generic vs. non-generic distinction, accordingly.

A number of tests were aimed to show that Russian N-Pron is realized in Agr, and not as a verbal copula.

While Kratzer's treatment of generics was taken under consideration, I have developed a novel concept of genericity on the individual (personal) level. A property can be attributed to a person or an object on a generic level if it is true in either all or most possible worlds (situations).

N-Pron was used as a tool for examining the properties of adjectival predicates with long and short forms. I analyzed two types of predicates: adjectives that have both forms and adjectives that have only one form.

Russian sentences differ in meaning depending on the presence of N-Pron when the full form of an adjective is used. N-Pron attributes a generic meaning to a sentence where a predicate has a potential for realization in all possible world situations, while in the absence of N-Pron a sentence can be interpreted as having a temporary quality.

It was shown that Russian sentences where a short form of adjectives is found generally correspond to Hebrew sentences with obligatorily absent Pron. Likewise, N-Pron renders sentences of this kind in Russian ungrammatical. The presence of the 'eventive' (or 'state') argument on the predicate renders the sentence non-generic, thus it cannot appear alongside a generic marker.

Sentences with *SER* and *ESTAR* in Spanish were analyzed along the same lines as corresponding Russian and Hebrew sentences. Properties that are considered generic for a given person/ object are used alongside *SER*; however, the same properties can be 'relativized' contextually and then appear with *ESTAR*. Thus, identity sentences must be analyzed as generic, because *SER* is obligatory in them.

It was suggested that movement of predicates for feature checking accounts for the semantic differences between sentences with *SER* and *ESTAR*. The position of *SER* and *ESTAR*, as well as *javljat'sja* (be-indeed) in Russian and *be* in English, are defined as V-positions, while Hebrew is viewed as a language lacking a verbal element in corresponding sentences.

CHAPTER III. On Small Clauses and predication

3.1 Introduction

Small Clauses (SCs), as opposed to full clauses, represent grammatical entities that are essential in the study of cross-linguistic universals. And yet, the internal structure of various SCs has not been established, and moreover, some linguists even doubt their existence.

The literature on the syntax of various types of SCs is considerable (Chomsky 1975, Richardson 2001, Mateu 2001, Filip 2001, Filip & Kennedy 2000, Bowers 1993, Bailyn & Rubin 1993, 1991, Williams 1983, Rothstein 1983, 1995, Stowell 1983,), yet a number of questions still remain unanswered. If SCs contain functional projections, it is not clear whether they are identical to those found in full clauses, what their distribution is, and what the restrictions on a SC-formation are.

Recent linguistic analyses have distinguished SCs on the basis of the lexical category of their predicate. It is not clear then why in many cases Small Clauses of the same type vary in their behavior. For example, certain adjectival (secondary) predicates of Russian SCs can be assigned either Nominative or Instrumental Case. At the same time, different lexical categories, such as nominal and adjectival predicates, show a considerable similarity.

After a short review of some major approaches to Small Clauses, I will analyze Russian data on Instrumental secondary predicates and argue that predication in SCs can be established directly, which is in contrast with postulation of a functional category Pred (Bowers, 1993).

I will assume that predication can be represented formally as a sequence of logical operations, and offer a representation of these operations on a sentential level as well as within NPs. It will be suggested that not only the order but also the direction of predication is important.

Furthermore, this Chapter draws a parallel between focus in NPs and syntactic predication in Russian and Bulgarian. Unlike traditional studies on focus that mostly deal

with focus at a sentence level (Partee, 1991, Rooth, 1996, Zubizarreta, 1998), this work discusses focus relations obtaining within NPs. On the basis of Russian and Bulgarian NPs it will be suggested that focus (neutral vs. contrastive) creates an asymmetric syntactic relation within the NP equivalent to sentential predication (following Rothstein, 1983, 1995).

3.2 Some approaches to Small Clauses

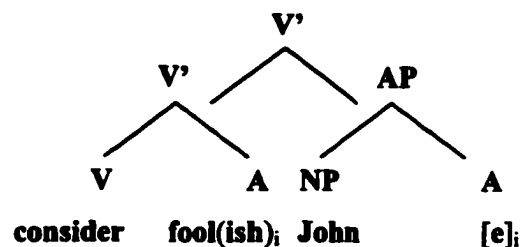
The analysis of constructions of the *consider*-type such as (1) has been a popular topic in the linguistic literature for quite a long time. They are discussed extensively in Chomsky (1975, 1981), Stowell (1981, 1991), Rapoport (1991), Neeleman (1994), among many others. Not all accept the underlined structure as a Small Clause.

(1) We consider John foolish.

Stowell (1983) regards the sequence [NP XP] in sentences such as (1) as a clausal constituent at all levels of representation, and proposed that in a construction of the type under discussion the object NP is theta-marked by the adjectival predicate but is assigned Case by the matrix verb.

Chomsky (1975) suggested that the NP is an argument of the complex predicate formed by the main verb and the XP. Following this line of analysis, Stowell (1991) offers Small Clause restructuring as a derivation by means of head-to-head adjunction similar to the process of incorporation in the sense proposed by Baker (1988):

(2)

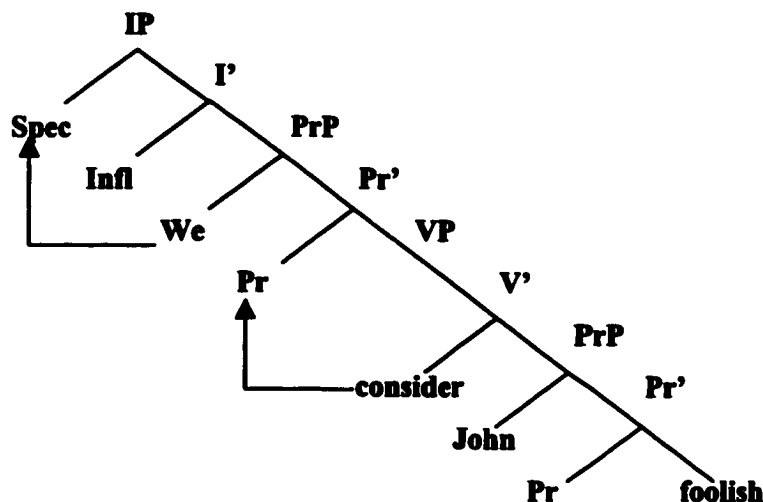


According to another view (Williams, 1983), NP and XP are co-arguments of the verb with a relation of predication established between them. Thus, there are no Small Clauses, and the sequence NP XP is not a clausal constituent. This view is against the Small Clause Theory proposed by Stowell.

Predication Theory (Chomsky, 1981) states that predication in Small Clauses is obtained in the absence of a verbal inflected form. Predication is a saturation relation that holds between two constituents (Rothstein, 1995, 2001). This is in contrast with the view according to which predication is in fact a theta-role assignment by an AP, a PP, or an NP of a Small Clause to the object of the verb (Schein, 1995).

Guéron and Hoekstra (1995) assume that predication involves AGR, which can be reanalyzed as a predicate head, as proposed in Bowers (1993). Under the hypothesis suggested by Bowers (1993), every I selects a Pr(edication) P(hrase) complement as an instance of primary predication. Pr in its turn selects any lexical category (AP, NP, or PP) as its complement. Thus, if Pr selects a category other than VP, the structure results in a copular sentence in English. Then the structure for sentence (2) repeated here as (3) will be as follows:

(3)

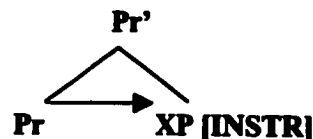


Bailyn and Rubin (1991, 1993) posit the existence of a null functional category *Pred* that serves the purpose of establishing a predication relation, and use the analysis proposed by Bowers (1993) in their attempt to account for Instrumental Case assignment to secondary predicates in Russian.

- (4)a. *My sčitaem Džona durakom/ glupym.*
 We consider John-Acc. fool-Instr./foolish-Instr.
 'We consider John a fool/ foolish.'

b. *Pr* assigns instrumental Case to its complement

Bailyn & Rubin, 1991



The analysis suggested by Bailyn and Rubin is based on the fact that Instrumental Case marks secondary predicates in Russian. According to their approach, primary and secondary predication are similar in a sense that they are both complements of *Pr*. Then *Pr*₁ selects VPs *sčitaju Džona durakom* (consider John a fool) and *videl Džona p'janym* (saw John drunk) in (5). The verbs *sčitaju* (consider) and *videl* (saw) in their turn select PrPs *Džona durakom* (John a fool) and *Džona p'janym* (John drunk). Predicative Ns *durakom* (fool) and *p'janym* (drunk) are assigned Instr. by *Pr*.

- (5) a. *Ja sčitaju Džona durakom/ *durak.*
 I consider John-Acc. fool-Instr./fool-Nom.
 'I consider John a fool.'

- b. *Ja videl Džona p'janym/ *p'janyj.*
 I saw John-Acc. drunk-Instr./drunk-Nom.
 'I saw John drunk.'

Other secondary predicates also marked by Instrumental are *rebjonkom*-Instr. (child) in [*Marija rebjonkom*] and *syroj*-Instr. (unboiled) in [*vodu syroj*] (water unboiled), in (6), and (7).

(6) *Marija vyšla замуž (počti rebjonkom/*rebjonok).*

Mary got married nearly child-Instr./-Nom.

'Mary got married when she was still a child.'

(7) *Ne peite vodu (syroj/ *syruju).*

not drink water-Acc. unboiled-Instr./ -Acc.

'Don't drink unboiled water.'

The analysis suggested by Bailyn and Rubin cannot account for the cases where secondary predicates are assigned Nominative Case, such as in (8). Following Bailyn and Rubin, we have to assume that Pred assigns Case both to the predicate *ustalym*-Instr. of [*Ron ustalym*-Instr.] (Ron tired) and *ustalyj*-Nom. of [*Ron ustalyj*-Nom.]. Postulation of Pr as a Case-assigning category provides no account for examples where Nom. and Instr. are interchangeable.

(8) *Ron vernulsja (ustalym/ ustalyj).*

Ron returned tired-Instr./-Nom.

'Ron returned tired.'

Furthermore, Schein (1995) shows that the copula must be overt for the predicate to have Instrumental Case, suggesting its assignment by a verb. Schein assumes that the Instrumental Case marking of a predicate by V parallels the Accusative case marking of a NP, as it is obligatory in SCs that are complements of *sčitat'* (consider). Schein's analysis is supported by examples such as those in (9) where Nominative Case is assigned to a AP *vernyj* (faithful) independently of whether a copula is present or not (9 a), while *byl* (was) is required in case of Instrumental Case marking (9 b).

(9)a. Ivan (byl) vernyj.

Ivan was faithful-Nom.

‘Ivan is/ was faithful.’

b. Ivan *(byl) vernym.

Ivan was faithful-Instr.

‘Ivan was faithful.’

Examples such as in (9) support the idea that a verb is required to assign Instrumental Case. This is also true for (5 – 8).¹

In this Chapter I will follow the hypothesis (Chomsky, 1999, Rothstein, 1995, 1983, 2001) that a predication relation between syntactic elements can be established directly without any additional functional category. I will not adopt the PredP approach to Small Clauses, for the following reasons. Usually, sentences such as *I regard John as crazy/ as an idiot* and *I consider John crazy/ an idiot* are assigned the following structures:

(10)a. I regard e [as [_{SC} John crazy/ an idiot]].

b. I consider [_{SC} John crazy/ an idiot]

Bowers (1993), on the other hand, asserts that SC complements of verbs such as *regard* in *I regard John as crazy/ as an idiot* are completely parallel to the complements of verbs such as *consider* in *I consider John crazy/ an idiot*. Bowers views *as* as a direct lexical realization of Pr.

Let us assume that we accept postulation of Pred together with Bailyn’s suggestion that Pred assigns Instrumental Case in Russian. Then it is not clear why corresponding to *as* Russian preposition ‘*kak*’ (*as*) is followed by NP *vrač* in the Nominative, but the same NP

¹ There is additional evidence from another Slavic language such as Polish that a verb is required to assign Instrumental to a predicate.

appears in the Instrumental in (12) in the absence of *kak* (as).²

(11) Ivan rabotaet kak vrač.

Ivan works as doctor-Nom.

'Ivan works as a doctor.'

(12) Ivan rabotaet vračom.

Ivan works doctor-Instr.

'Ivan works as a doctor.'

In addition, NPs following *kak* (as) can be assigned Accusative Case (13 a), Dative Case (13 b), etc.

(13)a. Oni uvažajut Bila Klintonu kak prezidenta.

they respect Bill Clinton-Acc. as president-Acc.

'They respect Bill Clinton as a president'.

b. Oni napisali Bilu Klintonu kak prezidentu.

they wrote-to Bill Clinton-Dat. as president-Dat.

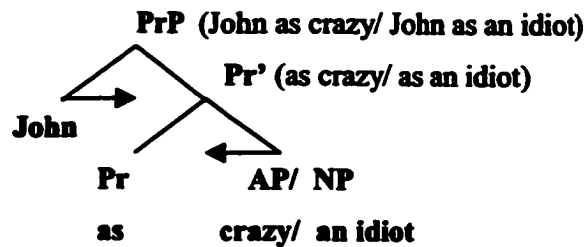
'They wrote to Bill Clinton as a president'.

Furthermore, if we follow the line of analysis according to which arguments are fed into the structure in a bottom-up manner, then the AP *crazy* and the NP *an idiot* will be required to saturate a two-place predicate *as* in [*John as crazy*] and [*John as an idiot*], accordingly. Next, the resulting one-place predicate will be phrases *as crazy* and *as an idiot*, which will take a NP *John* as their argument. However, a set of objects which possesses a property of being either "as crazy" or "as an idiot" cannot be defined; in

² See Przepiorkowski (2000) for a convincing criticism of Bailyn and Citko (1999), where they propose that overt morphology absorbs Case features, thus predicative NP receives Case by agreement with subject NP.

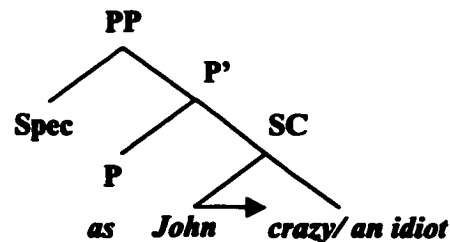
addition, *as* is a preposition with a meaning of some sort of a 'compare' function between two elements/ sets of properties. Thus, the following predicate structure cannot be accounted for:

(14)



Instead, the structure where a relation between *John* and *crazy/an idiot* is established directly creates no problems:

(15)



Recent developments in the Minimalist theory support the view that a single operation of merging two elements in a simple binary tree is the first stage in child development (Powers, 2001). As soon as combinations of two elements are perceived as objects, they are merged into more complex structures. Possibly, this basic binary structure is preserved in Small Clauses. This point requires further research.

Thus, I will follow Chomsky (2000, 2001a, 2001b) in defining predication as a merge of two elements, and Rothstein (1983, 1995, 2001) in treating a syntactic predicate as an open one-place syntactic function requiring saturation.

Child language provides additional evidence that the minimal units of predication do not employ auxiliary elements in English (e.g. in *Mummy good* - Mummy is good). Thus, the conclusions concerning lexical predication will be based on the idea that a predication mechanism is an operation of a direct Merge on two elements α and β .³ Moreover, according to Chomsky, in his most recent work, α and β are merged with no asymmetry. However, syntactic predication is an asymmetric relationship. APs, VPs and PPs must always be predicated of an argument while NPs and S' have the status of arguments. This rule accounts for both primary (16 a) and secondary (16 b) predication, where *saw John* is a primary and *raw* is a secondary predicate.

(16)a. Mary saw John.

b. Mary ate carrots raw.

Rothstein, 1983

Note that the predicate *saw John* is obligatory in (16 a) but *raw* is optional in (16 b). To account for this difference Rothstein distinguishes between adjunct and non-adjunct predicates. According to Rothstein, adjuncts do not form constituents with their subjects; furthermore, there are semantic restrictions relating predicate and subject, namely, the predicates other than stage-level are disallowed:

(17) I saw John *tall/ happy.

Rothstein, 1983

I have already shown in Chapter II that individual-level predicates can shift their level, so that the property is viewed as temporary, and it can be used in place of a secondary predicate (18).

(18) I saw John tall (wearing high heels).

³ For these and related issues see Soschen 2002, Soschen (to appear).

I will assume that in (19 - 21), predicates form a constituent with the argument NP, such as a complement of a *consider*-type verb in (22). The difference arises due to subcategorization frames of the matrix verbs. In (19-21) either SC or NP can be selected, while in (22) V subcategorizes for SC only.⁴

(19) Ne pejte vodu (syroj/ *syruju).
 ne pejte sc[vodu syroj]
 not drink water unboiled-Instr./-Nom.
 'Don't drink water unboiled.'

(20) Ron vernulsja (ustalym/ ustaljy).
 Ron vernulsja sc[e ustalym/ ustaljy]
 Ron returned tired-Instr./ -Nom.
 'Ron returned tired.'

(21) Marija vyšla замуž (počti rebjonkom/ *rebjonok).
 Marija vyšla замуž sc[e počti rebjonkom]
 Mary got married nearly child-Instr./-Nom.
 'Mary got married very young.'

(22)a. Vse sčitajut Mariju *(krasivoj).
 vse sčitajut sc[Mariju krasivoj]
 everyone consider Mary beautiful
 'Everyone considers Mary beautiful.'

b. Vse sčitajut *(Mariju krasivoj).
 everyone consider Mary beautiful
 'Everyone considers Mary beautiful.'

⁴ Note that in (20) both Instrumental and Nominative AP predicates are possible.

In the presence of *syroj* (unboiled-Instr.), sentence (19) does not express prohibition against drinking water; only when water is unboiled. (20) does not simply indicate the event of Ron's return, but the emphasis is on his state at that particular point (*ustalyj*-tired). Likewise, in (21) the meaning is 'Mary got married and she was a child at the time' when *rebjonkom* (child-Instr.) is used; it does not simply state the fact of her marriage.

Predicative structures are always perceived as one unit merging a predicate and its argument. Whether a verb takes SC or NP as its complement depends on the verb's subcategorization frame. English *consider* can have either NP complement (23 a) or SC complement (23 b).

(23)a. Let us consider_{NP}[this suggestion].

b. Let us consider_{SC}[this suggestion a joke].

Russian (22) with *sčitajut* (consider) is similar to (23 b) in that V selects for SC. In examples such as (19-21), it is either SC or NP.

We must differentiate between close meanings of the same verb, which affect its subcategorization properties. Example (24 a) simply states the fact of 'seeing Mary'; (24 b) has an additional meaning of 'imagining Mary grown-up'. Similar examples are often found both in Russian and in English.

(24)a. Ja vižu Mariju.

I see Mary

'I see Mary.'

b. Ja vižu Mariju vzrosloj.

I see Mary grown-up-Instr.

'I see Mary grown-up.'

To conclude, I assume that a SC predicate and its subject form a constituent in the absence of any intervening functional categories. Thus, predication should be treated as a variant of Merge, where two elements α and β form a new object $\Gamma = \{ \alpha, \beta \}$.

3.3 Formal approaches to Predication

In this part I will review some formal approaches which treat a predication relation between syntactic elements as established directly without any additional functional category, with a focus on the theory of types. Mechanisms of predication as functions of unsaturated meanings have been extensively discussed in Heim and Kratzer (1998), Gamut, (1991), Montague (1974), among many others.

Languages for predicate logic operate on two kinds of symbols. One kind includes expressions, which refer to entities in some given domain (constants and variables). The other kind is predicate constants, expressions that refer either to sets of entities (one-place predicate constants) or to sets of ordered sequences of n entities (n -place predicate constants).

Then $N(x)(a)$ is a saturated (one-place) predicative expression, where

- N is a set of objects with a certain property (e.g. *being nice*),
- x is a variable in a function which attributes any object possessing this property to the set, and
- a (e.g. *Ann*) is a constant which saturates the function.

Thus, $N(x)(a)$ is a formal expression of a sentence *Ann is nice*. For a two-place predicate such as for example *read*, a formal sentential expression will be $R(x,y)(a,b)$ (*Ann reads books*) where x is a 'reader' individual, y stands for any entity that 'can be read', and a and b are constants (*Ann* and *books*).

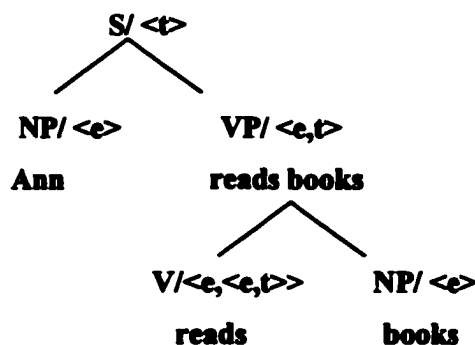
The theory of finite types was developed by Russell at the beginning of the twentieth century as an extension of the theory of sets. According to this theory, the membership relation is allowed to obtain between "entities", which are exactly one level apart. Thus, the symbol $\in$ (the relation of set membership) can apply to two symbols Γ and Δ only if

Δ is an expression of a type, which refers to sets of the entities referred to by expressions of the type Γ . Then $a \in a$ is impossible, but $a \in N$ is a well-formed expression.

In the theory of types, individual constants and variables are expressions of type e (entity), and formulas are expressions of type t (truth values). A one-place predicate is an expression of type $\langle e, t \rangle$ which is a function from individuals to truth values. The function checks whether a certain element belongs to a given set. Two-place predicates (e.g. *read*) are expressions of type $\langle e, \langle e, t \rangle \rangle$. When the expression R is applied to an individual constant b in $(R(x)(y))(a)(b)$ (*Ann reads books*), it results in a one-place predicate $(R(x))(b)$ or $R(b)$ of type $\langle e, t \rangle$, which expresses a property of 'reading books'.

The formula $R(a)(b)$ is obtained by applying this one-place predicate to the individual constant a . This formula expresses a relation that holds between an individual 'Ann' and a property of 'reading books'. The function is implemented in stages bottom-up, such as in (25).

(25) Ann reads books.



The lambda operator λ is a means of forming new expressions from expressions by abstracting over variables. For example, if M is a constant of type $\langle e, t \rangle$ and x a variable of type $\langle e \rangle$, then $M(x)$ is a formula in which x appears as a free variable.

The expression $\lambda x (M(x))$ can be formed from $M(x)$ by means of lambda-abstraction over the free variable x . Furthermore, the expression $\lambda(x)\lambda(y)(M(y)(x))$ is of type $\langle e, \langle e, t \rangle \rangle$, since it is formed by abstraction over a variable of type $\langle e \rangle$ in an expression of type

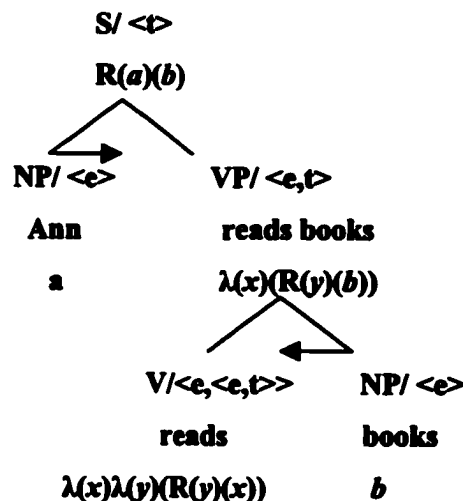
$\langle e, t \rangle$. A two-place predicate is thus obtained for expressing a property of e.g. 'being read by'. The application of lambda-notation by stages is presented below for purposes of formal translation for a two-place predicate *reads* in (26).

(26) Ann reads books.

Stage I. Apply constant *b* (*books*) to a two-place predicate $\lambda(x)\lambda(y)(R(y)(x))$ which expresses a property of 'reading'. The result is a one-place predicate $\lambda(x)(R(y)(b))$ which expresses a property of 'reading books'.

Stage II. Apply constant *a* (*Ann*) to a one-place predicate $\lambda(x)(R(y)(b))$ which expresses a property of 'reading books'. The result is a sentence of the form $R(a)(b)$.

(27) Ann reads books.



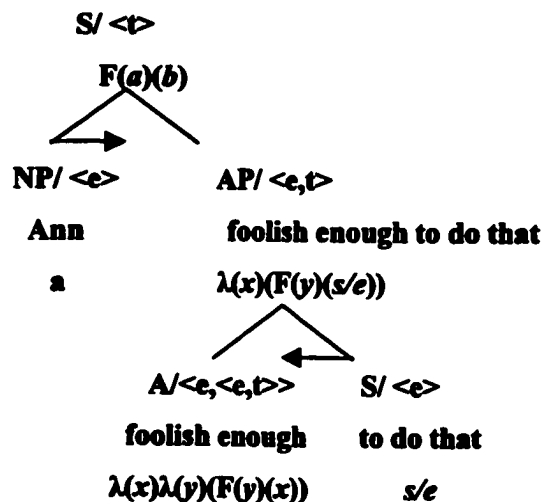
Thus, formal grammars view predication as a bottom-up sequence of logical operations.

The predicate itself bears an inherent set of possible arguments. For example, *read* as a two-place predicate requires for a true output an input of one argument as the doer of reading, and another as itsn object. Similarly, *foolish* requires as its input an argument

with the meaning of belonging to the set of entities that possess the property of ‘being foolish’, for a true output.

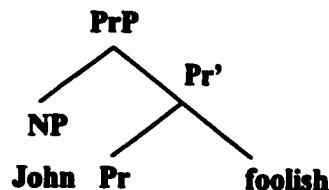
Adjectival predicates can have an optional ‘eventive’ argument when relativized, such as *foolish enough to do that* in *Ann is foolish enough to do that* (see Chapter II for details concerning relativization of adjectival predicates). In (28) a predicate *foolish*, as a set of instances of ‘being foolish’, takes an argument of one particular instance (of ‘being foolish’).

(28)

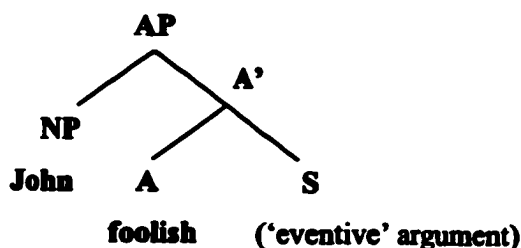


Thus, the structure in (29) suggested by Bowers is rewritten as (30).

(29)



(30)



To conclude this part, I have suggested that there is no need for an additional functional category to establish predication relations in SCs, as a predicate is inherently an open function that requires saturation by an argument. To repeat, Bowers (1993) suggests that predication is established in SCs by a functional category *Pred* as a two-place predicate, which takes an NP (a subject of SC) and a predicate AP as its arguments. Thus, in *We consider John foolish* *Pred* takes *John* and *foolish* as its predicates. However, according to the view developed here, predication can be established directly by a predicate *foolish* taking an argument *John*.

3.4 Russian Data. Instrumental vs. Nominative Case of predicates in SCs.

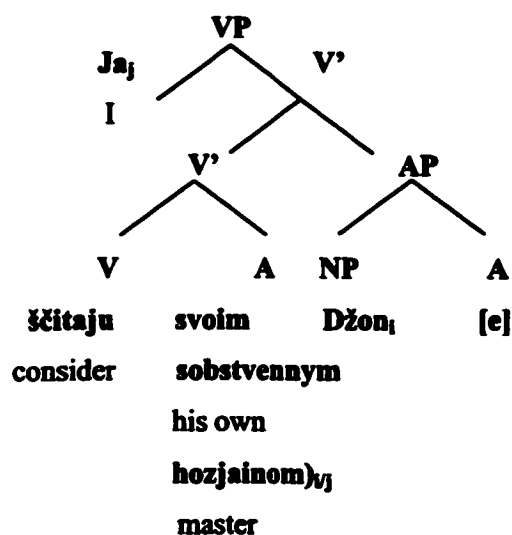
In this part I will highlight some problems in connection with SC complements of *consider*-type verbs, and offer an analysis of such and similar structures. I will also provide an account for Case variations (Instrumental vs. Nominative) in Russian secondary predicates.

Most of the analyses of Small Clauses that have been offered so far run into problems for Russian. First of all, Stowell's approach does not account for the distribution of the possessive pronoun *svoj* (one's own) in (31) and (32). The structure (33) assigned to (31) following Stowell, predicts that in (31) and (32) coreference conditions are the same; however, in (32), the lower NP cannot bind a personal pronoun *svoj sobstvennyj* (one's own).

(31) Ja_i $sčitaju$ $Džona_i$ $svoim$ $sobstvennym$ $xozjainom_{ij}$.
 I consider John-Acc. SELF-Instr. own master-Instr.
 'I consider John his own master.'

(32) Ja_i $sčitaju$ $svoim$ $sobstvennym$ $xozjainom_{ij}$ $Džona_i$.
 I consider. SELF-Instr. own master-Instr. John-Acc.
 'I consider John my own master.'

(33)



I will assume that *consider* - type verbs such as *sčitat'* in Russian subcategorize for SC and there is no movement out of the SC to the object position of the matrix verb *sčitat'*.⁵

Furthermore, these verbs take SC-complements when they appear with a SJA postfix (a marker of intransitivity) (34-37). The meaning in this case is passive, 'John is considered handsome' in (34 a) and 'John is considered a good person' in (34 b).

⁵ Other verbs of this class include *predstavljat'* (imagine), *videt'* (see/ imagine), etc.

These examples suggest NP-raising out of an AP [*Džon krasivym*] (John handsome) and a NP [*Džon xorošim čelovekom*] (John a good person):

(34)a. Džon sčitaetsja [e krasivym].
 John-Nom. consider-SJA handsome-Instr.
 ‘John is considered handsome.’

b. Džon sčitaetsja [e xorošim čelovekom].
 John-Nom. consider-SJA good person-Instr.
 ‘John is considered a good person.’

Examples (35 b), (36 b), and (37 b) are structural representations of corresponding (35 a), (36 a), and (37a).

(35)a. Džon sčitaetsja krasivym.
 John consider-SJA handsome
 ‘John is considered handsome.’

b. sčitaetsja [Džon krasivym]_{SC-AP}
 consider-SJA [John handsome]

(36)a. Orna kažetsja sčastlivoj.
 Orna seem-SJA happy
 ‘Orna seems happy.’

b. kažetsja [Orna sčastlivoj]_{SC-AP}
 seem-SJA [she happy]

(37) a. *Zadača predstavljaetsja složnoj.*

task appear-SJA difficult

‘The task appears to be difficult.’

b. *predstavljaetsja [zadača složnoj]_{SC-AP}*

appear-SJA [task difficult]

SC predicates in the examples above appear in the Instrumental only, which is assigned by V, according to the theory presented here. Note that adjectival predicates of SCs are always in agreement with a SC subject in gender (38 a). By contrast, in case of nominal predicates, grammatical gender can differ. The NP *drug* (friend) in (38b) is masculine, while the subject *ona* (she) is feminine.

(38)a. *Ona sčitaetsja umnoj/ *umnym/ *umnymi.*

she-fem.sg. consider-SJA clever-fem.sg. clever-masc.sg./clever-pl.

‘She is considered clever.’

b. *Ona sčitaetsja xorošim drugom.*

she-fem.sg. consider-SJA good-masc. friend-masc.

‘She is considered a good friend.’

As was already mentioned, predicative adjectives of secondary predicates appear mostly in the Instrumental, they also show agreement with the nouns they are predicates of (39). In certain cases Instrumental and Nominative are interchangeable (40).

(39) *Džon p’jot čaj gorjačim/*gorjačij.*

John drinks tea-masc.Acc. hot-masc.Instr./-masc.Nom.

‘John drinks tea hot.’

- (40) Sosed prišol p'janym/ p'janyj.
 neighbour-Nom. came drunk-Instr./drunk-Nom.
 'The neighbour arrived drunk'.

It was suggested that Instrumental-marked predicates make contributions to the meaning of a sentence that involve the temporal notion of a 'change of state' (Filip, 2001). Without focusing on the semantic differences, I will suggest a new analysis of Instrumental and Nominative Case assignment in primary and secondary predicates in (40) and the like.

According to Guéron and Hoekstra (1995), predications are syntactically represented through AGR, such as in (41), where the head of the secondary predicate is associated with AGR:

- (41) We considered John foolish.

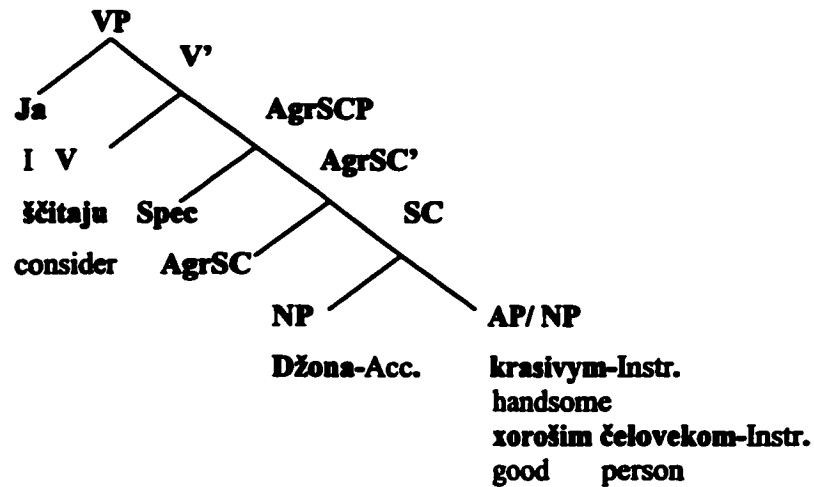
[John_i AGR [AP *t_i* foolish]]

Guéron and Hoekstra, 1995

Following Guéron and Hoekstra, Russian *sčitat'*- (consider) - type verbs select Agr, which in its turn contains Small Clause APs or NPs (42).

- (42)a. Ja sčitaju Džona krasivym/ xorošim čelovekom.
 I consider John-Acc. handsome-Instr./ good person-Instr.
 'I consider Bob handsome/ a good person.'

(42)b.



Both nominal and adjectival secondary predicates appear only in the Instrumental (43).

(43) a. Ja sčitaju Džona krasivym/ *krasivyj.

I consider John-Acc. handsome-Instr./ handsome-Nom.

'I consider John handsome.'

b. Ja sčitaju Džona xorošim človekom / *xorošij človek.

I consider John-Acc. good-Instr. person-Instr./ good person-Nom.

'I consider John a good person.'

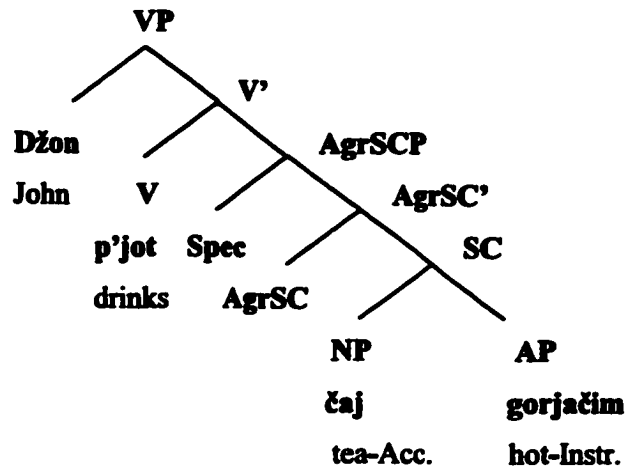
Example (39) repeated here as (44) has SC containing a subject NP and a predicate phrase AP.

(44)a. Džon p'jot čaj gorjačim/ *gorjačij.

John drinks tea-masc.Acc. hot-masc.Instr./-Nom.

'John drinks tea hot.'

(44)b.

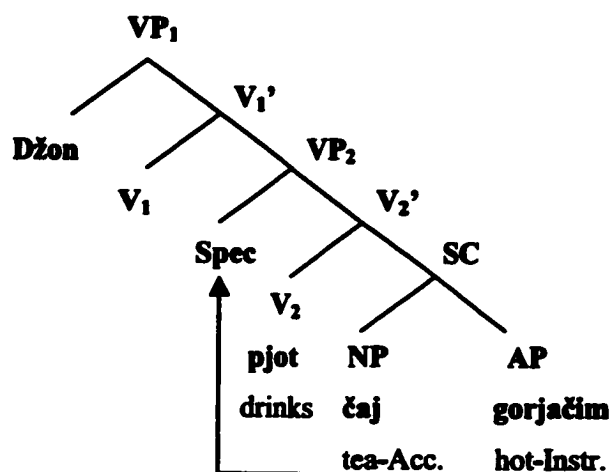


Considering the representation given above, it is not clear how V can assign Case across so much structure. Note that both *čaj*-Acc. (tea) and *gorjačim*-Instr. (hot) are assumed to be assigned Case by the verb *p'jot* (drinks) in (44). To resolve this problem, I will go back to the analysis of resultative verbs to show that both Accusative and Instrumental Case are assigned structurally in SCs.

In Chapter I, resultative structures were represented as consisting of two clauses (the causing and the resulting). Double-clausal structure in (45) allows the verb *p'jot* (drinks) to assign structural Case both to *čaj*-Acc. (tea) and to *gorjačim*-Instr. (hot).

- (45)a. Džon p'jot čaj gorjačim/ *gorjačij.
 John drinks tea-masc.Acc. hot-masc.Instr./ -Nom.
 'John drinks tea hot.'

(45)b.



The structure in (45) is in some sense reminiscent of the so-called ‘double-object’ constructions of the kind *John gave Mary a book* where the verb *give* assigns Dative to *Mary* and Accusative to *book*. This point requires further research.

Now let us account for the fact that in examples such as (46) Instrumental and Nominative are interchangeable.

- (46) Sosed prišol (p'jany/ p'janyj).
 neighbour-Nom. arrive-masc.sg.Past drunk-Instr./-Nom.
 ‘The neighbour arrived (drunk).’

Comrie (1997) suggests that Case assignment to predicate nominals in copular sentences can be carried out by means of either government or agreement ((47) for Polish and (48) for Basque, accordingly).

- (47) Ten chłopiec jest moim uczniem.
 this boy-Nom. is my-Instr. pupil-Instr.
 ‘This boy is my pupil’.

- (48) *Gizona ona da.*
 the-man-Abs. good-Abs. is
 ‘The man is good’.

Comrie, 1997

Following this suggestion, I will assume that Instrumental Case in Russian is assigned by the matrix verb to a predicate in (49). Nominative Case, in its turn, can be viewed as a default Case, resulting from mapping the subject’s Case onto the predicate’s.

- (49) *Sosed prišol (p’jany m/ p’jany j i ustal y m/ ustal y j).*
 neighbor-Nom. arrive-masc.sg.Past drunk-Instr./-Nom. and tired-Instr./-Nom.
 ‘The neighbour arrived drunk and tired.’

As has already been shown, predicates of *consider*-type verbs obligatorily receive Instrumental Case in Russian. In (50) Instrumental Case is assigned by the verb, but there is no mapping of the subject’s Case onto the secondary predicate. The predicate’s subject is in the Accusative (*soseda*-Acc.), but the predicate *lenivym* (lazy) is in the Instrumental.

- (50) *My sčitaem soseda lenivym/* lenivogo/*lenivyj.*
 we consider neighbour-Acc. lazy-Instr./ -Acc./ -Nom.
 ‘We consider the neighbor lazy.’

Obviously, Case-mapping is possible only when the subject of the matrix verb is the same as the subject of SC (49). This explains why the Case of the predicate is Nominative, as the subject of the matrix clause is assigned Nominative in [Spec, IP].

In addition, Case-mapping is possible only when the predicate is adjectival, not nominal. In (51 a) both ways of Case-assignment are possible (namely, Case assigned by the verb and Case assigned by the mapping), because the predicate is adjectival. In example (51 b) there is no mapping of the Case of the NP *brunetka* (brunette) onto the NP *Nina*, and the NP *blondinka* (blonde) onto the NP *Nina*. Thus, the only possible Case is Instrumental.

(51)a. Nina prišla grustnoj/ grustnaja, a ušla vesjoloj/ vesjolaja.

Nina came sad-Instr./sad-Nom. and left happy-Instr./happy-Nom.

‘Nina arrived sad but left happy.’

b. Nina prišla brunetkoj/ *brunetka, a ušla blondinkoj/ *blondinka.

Nina came brunette-Instr./brunette-Nom. and left blonde-Instr./blonde-Nom.

‘Nina arrived a brunette but left a blonde.’

The theory of Case-assignment presented here provides an explanation of why secondary predicates of subjects of transitive verbs cannot appear in the Nominative, as the subject of a SC is different from the sentential subject. However, Case-mapping is possible between a subject of SC *soseda*-Acc.(neighbor) and its predicate *p’janogo*-Acc. (drunk) (52 a). Again, Case-mapping is excluded when a predicate is nominal (52 b). Thus, there is a direct connection between the agreement and Case-assignment.

(52)a. My priveli soseda domoj p’janym/ p’janogo.

we brought neighbor-Acc. home drunk-Instr. drunk-Acc..

‘We brought the neighbor home drunk.’

b. My priveli soseda domoj drugim čelovekom/ *drugogo čeloveka.

we brought neighbor-Acc. home different person-Instr./ -Acc.

‘We brought the neighbor home a different person.’

Going back to the theory of Instrumental Case-assignment by Pred and the assumption that *kak* (as) is a realization of Pred, we can see now that there is no way to explain why a SC predicate of (53) *vrač* (doctor) carries Nominative Case when it appears alongside *kak* (as). At the same time, a SC predicate *vračom* (doctor) is marked by Instrumental when *kak* (as) is absent (54).

(53) *Ivan rabotaet kak vrač.*
Ivan-Nom. works as doctor-Nom.
'Ivan works as a doctor.'

(54) *Ivan rabotaet vračom.*
Ivan-Nom. work-3sg. doctor-Instr.
'Ivan works as a doctor.'

This difference can be explained on the grounds that Nominative Case in (53) is assigned by the mapping from the subject *Ivan*-Nom., and *V rabotaet* (work-3sg.) assigns Instr. to a NP *vrač* (doctor).⁶

Furthermore, in (55) *vrača* (doctor) receives Accusative Case from the object *Ivan* of the matrix verb. Thus, *kak* cannot be a Case-assigner, because Case is different in (53) and (55).

(55) *My znaem Ivana kak opytnogo vrača.*
We know Ivan-Acc. as experienced doctor-Acc.
'We know Ivan as an experienced doctor.'

To conclude, there are clearly two ways of assigning Case to secondary predicates in Russian: by means of V and by Case-mapping.

In order to develop the argument that no functional category such as Pred is needed because predication can be established directly, the following part will present the analysis of predication as a set of ordered functions. I will introduce the notion of the direction of predication in primary and secondary predicative structures.

⁶ Note the semantic difference. (54) defines *Ivan* as a doctor by profession. In contrast, (53) carries an additional implication that *Ivan* might be a substitute. Thus, there is no redundancy of expression in the presence of *kak* (as).

3.5 Types of predication

3.5.1 Symmetric vs. Asymmetric Predication

According to the predication theory as developed in Rothstein (1983, 1995, 2001), maximal projections can be divided into two types, argument XPs and non-argument XPs. Every syntactic predicate as an open function must be closed/ saturated by being linked to an appropriate syntactic argument. A syntactic function is in this sense incomplete, and requires saturation by an argument. For example, in Py^2 , the variable y marks the place where the name of a number will be inserted to complete the expression. Thus, the expression has two parts: the 'sign of the argument' which is complete in itself, and the 'expression of the function' which is not complete and requires saturation by an argument.

Syntactic predicates are always non-arguments and open expressions. In this analysis, both clausal and secondary predicates can be accounted for by the same rule. Furthermore, a sentence can be redefined as a particular type of (clausal) predication relation.

In (56 a, b) both the clausal predicate *saw John* and the non-clausal *raw* are linked to subjects. Rothstein's theory accounts both for primary in (56 a) and for secondary in (56 b) predicates.

- | | | |
|--------|-------------------------------|-------------------------|
| (56)a. | Mary <u>saw John</u> . | 'primary' predication |
| b. | Mary ate carrots <u>raw</u> . | 'secondary' predication |

An advantage of representing the syntactic string in terms of predicates and subjects is that it makes a mapping from the syntactic to the semantic representation very straightforward. While a representation of syntactic subjects and predicates is not isomorphic to the semantic representation, the algorithm of mapping between them is simple.

The claim advanced in this Chapter is that this approach can be directly applied to a relationship not only between a verb and a noun, but also between elements within NPs modified by adjectives. In all NPs modified by an adjective there are two functions, which can be viewed as a bi-directional relationship,⁷ in contrast with the clausal predication, which involves a uni-directional function.

In (57) *Slony dobrye* (Elephants are kind) there is a uni-directional predication that refers an object *slony* (elephants) to the set of all possible entities possessing a property of 'being kind'. Please note that in Russian sentential predication is established directly without a copula.

(57)a. *Slony dobrye.*

'Elephants are kind.'

b. $D(x) \leftarrow slony$

$\lambda(x)D(x) (slony)$

$D(s)$

In contrast, in NP *dobrye slony* (kind elephants) there are two functions which choose their arguments simultaneously. One of the functions is in fact the same as in (57) and corresponds to (58 b), while the other one attributes the property *dobrye* (kind) to *slony* (elephants) in (58 c), picking one particular quality out of the set of all possible qualities characteristic of elephants.

(58)a. *Dobrye slony*

Kind elephants

⁷ This statement is in agreement with Chomsky (2001) concerning a merge of two elements with no asymmetry.

(58)b. $D(x) \leftarrow slony$

$\lambda(x)D(x) (slony)$

$D(s)$

c. $S(x) \leftarrow dobrye$

$\lambda(x)S(x) (dobrye)$

$S(d)$

A resulting intersection of two sets *dobrye* (kind) and *slony* (elephants) thus constitutes a set that combines both properties. In this sense, bi-directional predication is different from the clausal one as it does not introduce a new object into an already existing set, but establishes a relation between two pre-existing sets.

Clausal predication relationship in (59) is an asymmetric one, where configurations like (60) are impossible. In contrast, predication relations within NPs allow bi-directional functions (60).

(59) *Asymmetric predication*

ELEMENT₁ $\longrightarrow$ ELEMENT₂

(60) *Symmetric predication*

ELEMENT₁ $\longleftrightarrow$ ELEMENT₂

I assume here that a predication relation of the type (60) is found in all modified NPs, while (59) is found on the sentential level and in SCs.

3.5.2 Predication as a set of ordered functions

Let us suggest that there is an order in establishing predication, in particular that it is

achieved in a bottom-up manner by merging two elements. In (61) the state in which carrots were eaten is the issue, not the fact of eating carrots.

The traditional terms primary and secondary are applied to the order of establishing predication relations that are viewed as a bottom-up function. Thus, there are two basic types of predication: primary and secondary, which are available both within some NPs (contrastive NPs, see next section) and within the sentence.

For example, in (61), first a secondary predication is established between a predicate *raw* and its argument *carrots* (61 a), then a primary between a predicate *ate carrots raw* and its argument *Mary* (61 b).

(61) (a) Mary ate carrots raw. secondary predication

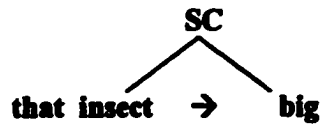
(b) Mary ate carrots raw. primary predication

This ordering is justified from the semantic point of view. To support the last statement, *Mary did not eat carrots raw* does not imply that Mary did not eat carrots at all.

Another piece of evidence that predication can be represented as a set of ordered functions comes from Mandarin Chinese. According to Rubin (in progress), there is a detectable difference in meaning between the two copula constructions of Mandarin, the one with and the one without the copula. *De* is a morpheme that marks a modifier. In cases where *de* is not present, the adjective is understood as ‘absolute’, namely, Mandarin ‘that insect big’ means that the insect is large in an absolute sense. In the other copula construction, where there is an overt copula and *de*, the meaning is relative. Mandarin ‘that insect shi big-*de*’ means that it is a big insect, even though it might be quite small in absolute terms. If so, then in ‘that insect big’ a function is established between a set of all big objects and ‘that insect’.

(62)a. ‘That insect big.’

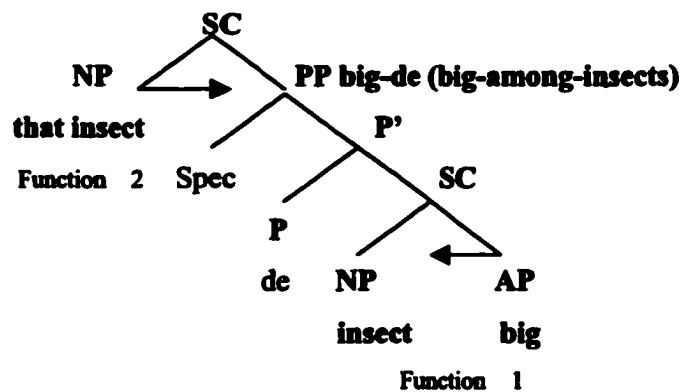
(62)b.



In contrast, in 'that insect big-de' function 1 chooses the big ones among the insects by merging two elements 'big' and 'that insect' into SC. As a secondary operation, a predication relation is established between 'the insects that are big among the insects' and the subject. Thus, the presence of *de* signals not only multiplication of functions by two, but also their particular ordering.

(63)a. 'That insect big-de'.

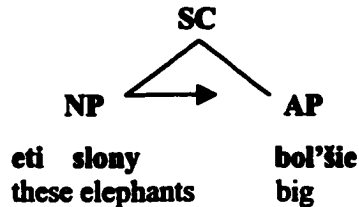
b.



As an extension of this analysis to Russian, sentence (64) is ambiguous between two meanings. The first meaning is that *slony* (elephants) are big in a general sense, the second that they are big among elephants. As a way to account for the first interpretation, the mechanics of predication in Russian (64) are considered to be analogous to that of the Chinese (62). In both (64) and (62) 'big' is understood as absolute.

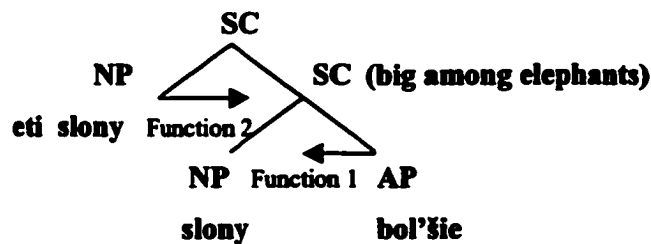
- (64)a. Eti slony bol'sie.
 these elephants big-long form
 'These elephants are big (in general).

b.



The way predication is established in (65) is analogous to (63) (but for the absence of copula in Russian).

(65)



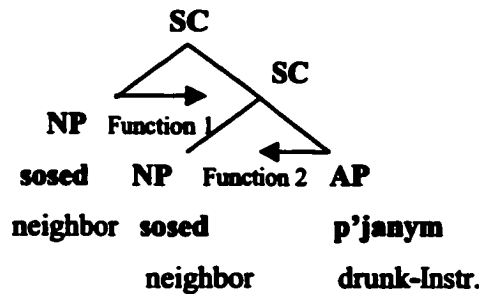
Furrrthermore, this analysis may be applied to explain the differences in predication relations between the predicates *p'jany*m-Instr. (drunk) in (66) and *p'jany*j-Nom. (drunk) in (67), and their argument *sosed* (neighbor).

It is argued in Filip and Kennedy (2000) and Richardson (2001) that Instrumental secondary predicates convey an additional meaning of a change of state. In contrast, according to the theory of predication developed here, the difference lies in the number and ordering of functions other than in a presence of a 'change of state' operator (which belongs in a verbal domain). In example (66) a function first chooses the states in which *sosed* (neighbor) is drunk from all his possible states (Function 1), and then attributes the subject to this limited set (Function 2). Instrumental Case is an indication of the presence of two functions. NP *Sosed* (neighbor) represents an unsaturated function with Instr. AP

as its input, which accounts for the additional meaning of a particular state attributed to the individual *sosed* (neighbor). Otherwise, predication in SC is established directly, in one step (67 a, b). The following stage involves establishing predication relations between an argument NP *sosed* (neighbor) and its primary predicate *prišol p'janyj/ 'janym* (arrived drunk-Nom./-Instr.) (67 c).⁸

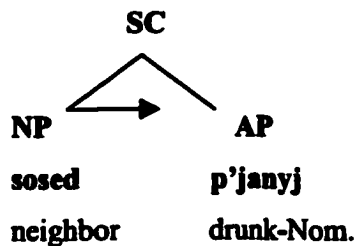
- (66)a. *Sosed* *prišol* *p'janym*.
 neighbor-masc.sg.Nom. arrive-masc.sg.Past drunk-Instr.
 'The neighbor arrived drunk.'

b.



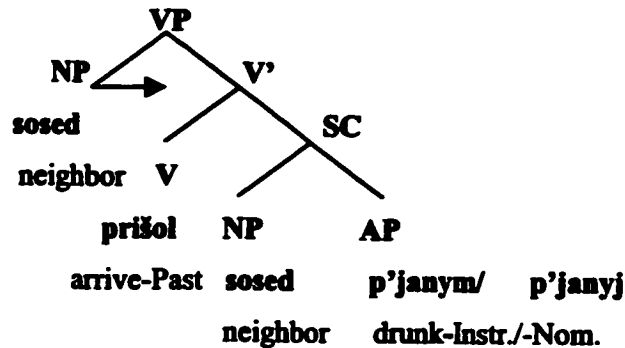
- (67)a. *Sosed* *prišol* *p'janyj*.
 neighbor-masc.sg.Nom. arrive-masc.sg.Past drunk-Nom.
 'The neighbor arrived drunk.'

b.



⁸ See Soschen, to appear.

(67)c.



It follows from the above that predication in SCs with Instrumental predicates in Russian can be redefined in terms of a succession of semantic operations. The suggestion is that this type of a relation corresponds to a bi-directional predication found in NPs with modificational adjectives. It is different from a uni-directional predication found on a sentential level. In order to establish the way in which predication relations work for different types of adjectives, I will now turn to the analysis of predication within Russian NPs.

3.6 Predication within Russian NPs modified by adjectives

Larson (1998) explores the ways in which adjectives and nouns intersect, and points out the ambiguity for intersective/non-intersective readings, which are paraphrased in (68 b, c), respectively:

(68) a. Olga is a beautiful dancer.

b. 'Olga is a dancer and Olga is beautiful'

c. 'Olga is beautiful as a dancer/Olga dances beautifully'

Larson, 1998

This sort of ambiguity arises with many other adjectives not only in English, but in Russian and other languages as well:

(69) a. Nataša – umnaja studentka.

'Natasha is a smart student.'

b. Oleg – staryj drug.

'Oleg is an old friend.'

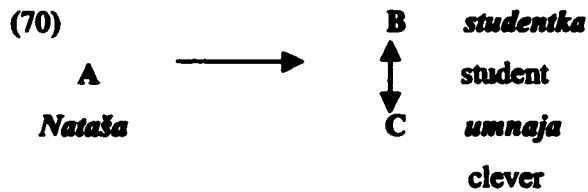
Sentence (69 a) can mean that *Nataša* is a student and a smart person (the intersective reading), it can also mean that she is smart as a student but not as a businessperson, for example. Similarly, *Oleg* in (69 b) can be an old person, or he can be young but an old friend.

Larson divides predicative adjectives into three groups:

- Intersective Modification Adjectives (aged, sick, infinite, nude, tall...),
- Non-intersective Modification Adjectives (former, veteran, rightful, chief...), and
- Doublets which are both intersective and non-intersective, such as in (68) and (69) (beautiful, intelligent, difficult, diligent, firm, true...).

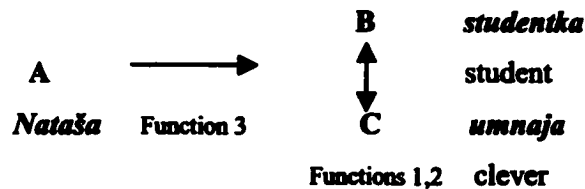
According to Larson, most of the forms are assumed to belong to the 'doublets' group. Adjectives of the first intersective group when combined with a noun show no ambiguity; in order to be an aged friend, one has to be both aged and a friend. It is assumed that adjectives of the second group do not intersect because *John is a former president* cannot mean *John is former* and *John is a president*.

The analysis of the direction of predication presented here is aimed at accounting for the above differences in noun-adjective combinations. Let us assume that in sentences of the kind (69 a) predication can be established between three elements: a subject of the sentence NP *Nataša* (Element A), a modified NP *studentka* (student) of the predicate (Element B), and AP *umnaja* (clever) (Element C). A relation between A and [B, C] is uni-directional, and between B and C bi-directional (70).



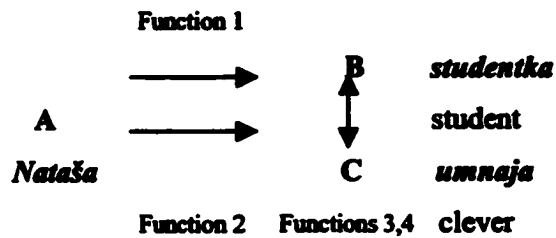
Then it follows that a predication relation can be established first between elements B and C, and then between A and a combination [B, C] (71). Variant I accounts for the meaning where *Nataša* is smart as a student only. Both AP *umnaja* (clever) and NP *studentka* (student) behave as unsaturated functions 1 and 2 with respect to each other, and require saturation by the argument that applies (an individual 'student' and a property of 'being smart' and, respectively).

(71) Variant I



Alternatively, A can combine separately with B (Function 1) and with C (Function 2) first, and then the two sets [A, B] and [A, C] are conjoined (Function 3). NP *studentka* (student) and NP *umnaja* (clever) do not behave as unsaturated function with respect to each other. Variant II is the one that is found in the reading of sentence (69 a) where *Nataša* is a student and a smart person other than smart as a student. Functions 1 and 2 are assumed to be simultaneous in both Variants.

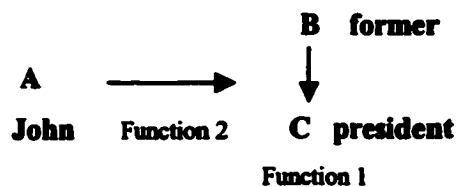
(72) Variant II



It follows that non-intersective Modification Adjectives (former, veteran, rightful, chief...) choose Variant I over Variant II as a means of establishing relations within NPs and on a sentence level; however, predication within NPs is uni-directional. Obviously, certain APs such as *former* appear as arguments only but not as unsaturated functions. Thus, AP *former* is an argument of NP *president*, then *John* is combined with *former* *president* in *John is a former president*. This also accounts for the preference of Variant I, because AP *former* cannot appear as an independent unsaturated function to take NP *John* as its input. Similarly, in (73 c) *ready-to-defend* first combines with *dissertation* following the pattern of Variant I, which excludes (73 d) reading:

(73)a. John is a former president.

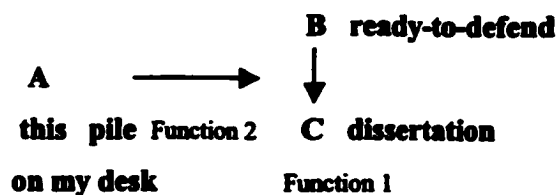
b. Variant I.



c. This pile on my desk is a ready-to-defend dissertation.

d. This pile on my desk is ready-to-defend and this pile is a dissertation.

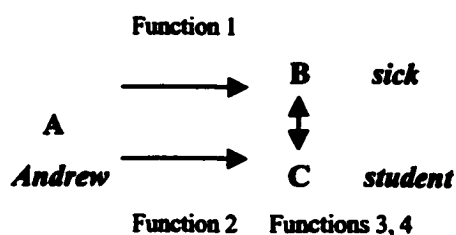
(73)e. Variant I.



Furthermore, adjectives such as *aged*, *sick*, *infinite*, *nude*, *tall* etc. choose Variant II but there is no relation between elements B and C. An aged friend has to be both an aged person and a friend, and a sick student cannot be sick as a student only. There is a restriction on the adjectives that can appear as arguments of certain predicates. A categorial feature *sick* does not belong in the set of categories that characterize a property of 'being a student'.

(74) Andrew is a sick student.

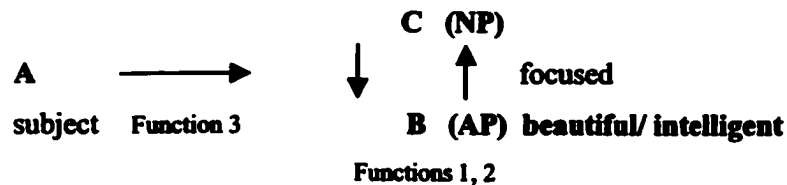
Variant II.



The way in which the elements are combined accounts for the ambiguity in the 'doublets', as both Variant I and Variant II are applicable in their case. Nevertheless, the story cannot be that simple. Numerous adjectives, which are generally referred to as 'doublets', can be viewed as 'relativized' to some extent. Consider modified NPs of (75). It is clear that 'intelligence' is a relative notion in (75 a - c). Similarly, there is a different kind of beauty involved in each of the examples (75 d - e). Although both Variant I and Variant II are options for these examples, there is a preference to establish a relation

between elements B and C first where a direction from APs to NPs is focused (intelligent among cats, intelligent among professors, etc.). Thus, Variant I becomes more prominent, and would be expected to be chosen over Variant II in most interpretations.

- (75)a. A is an intelligent cat.
b. B is an intelligent child.
c. C is an intelligent professor.
d. D is a beautiful smile.
e. E is a beautiful girl.
f. F is a beautiful morning.
g. Variant I.



The idea concerning the preferred Variant can be applied to predication ordering in sentences such as *Micky is a big mouse*. On one reading, the sentence means that *mouse* is *big* only among mice. However, as (76) and (77) show, relative adjectives *big* and *small* either choose Variant I ('relativization') only (76), or can fit into a category that selects both Variant I and Variant II (77).

- (76) a. This is a big mouse.
b. This is big for a mouse/ ?This is big and this is a mouse.
c. This is a small elephant.
d. This is small for an elephant / ?This is small and this is an elephant.

(77)a. This is a big elephant.

b. This is big for an elephant/ This is big and this is an elephant.

c. This is a small mouse.

d. This is small for a mouse/ This is small and this is a mouse.

A quality of 'being big' vs. 'being small' in *big mouse* and *small elephant* is mostly understood as being referred to a certain group, which indicates a prominence of Variant I (big among mice, small among elephants). However, it can be both relative (Variant I) and non-relative (Variant II) in *a small mouse* and *a big elephant*. The existence of two variants makes the interpretations of *a big mouse/ a small mouse* and *a big elephant/ a small elephant* possible and resolves the ambiguity.

To sum it all up, bi-directional predication relations may hold between NPs and their adjectival modifiers. The direction of predication and the ordering of the functions account for the differences in noun-adjective combinations.

3.7 Predication and Focus in Russian and Bulgarian

3.7.1 Predication and Focus within NPs

This part of Chapter III draws a parallel between the mechanism of focus in NPs and syntactic predication in Russian and Bulgarian. Unlike traditional studies on focus that mostly deal with focus at a sentence level (Partee, 1991, Rooth, 1996, Zubizarreta, 1998) this part of the thesis discusses focus relations obtained within NPs.

On the basis of Russian and Bulgarian NPs it can be assumed that focus (neutral vs. contrastive) creates an asymmetric syntactic relation within the NP equivalent to predication. This can be formalized as a succession of semantic operations.⁹

Default predication relation of a symmetric type is found within NPs with neutral stress (NPs in their own cycle), while in NPs with contrastive focus, predication is

⁹ See also Arnaoudova and Soschen, 2000

established in two stages, similarly to what we have in sentences. The first stage is an asymmetric predication and the second stage is a symmetric predication.

Neutral intonation operates on cyclic domains (both NPs and CPs), most recently redefined in terms of phases (Chomsky, 1998) and is determined on the basis of the constituent structure (Chomsky, 1971, Cinque, 1993, Reinhart, 1995). In case of neutral intonation in the NP, in the NP *umnaja ženščina* (clever woman) the stress falls on *ženščina* (woman) and is not marked (Nuclear Stress Rule: Chomsky & Halle, 1968). Semantically, a value is assigned, but it is not contrasted with other members of a set of alternative entities, given that another set does not exist.

The relation between two sets of properties, 'being a woman' and 'being clever', can work in both directions: either towards the set of 'clever entities' (78 a) or towards the set of 'women' (78 b). This is illustrated in (78 a) and (78 b) that include two hierarchically ordered assertions. The first assertion introduces a variable x , which is found in a (pre-existing) set, while the second provides an equation relation between the variable defined in the first assertion and a value.

(78) NP *umnaja ženščina* (clever woman)

(a) Assertion 1: there is an x , such that $x \in S(x)$

Assertion 2: $x = \text{woman}$, $C(w)$

(b) Assertion 1: there is an x , such that $x \in W(x)$

Assertion 2: $x = \text{clever}$, $W(c)$

Thus, this kind of predication can be defined as a default symmetric predication which is found in a modified noun phrase carrying neutral intonation, as discussed in the preceding part. NP *umnaja ženščina* (clever woman) involves a symmetric neutral intonation predication relation, which works in both directions. The sets *ženščina* (woman) and *umnaja* (clever) are identified by default (i.e. we do not have to identify them in relation

to other sets), and then the NP predication function (linking rule, or closure) checks whether both sets are inter-related.

In case of contrastive focus, a function first excludes either a specified or an unspecified set of potential candidates for a value. The next operation establishes a mapping relation between a set A and a set B and assigns a value to a variable contained in a presupposed set.

The prediction is, then, that focus predication can be captured as the set of ordered functions. With contrastive focus, the stress which can fall either on N or on A is marked, as in (79) and (80). In this case focus assignment involves the existence of a set of alternatives (see Rooth, 1996). First, a single value is assigned against either a specified (singleton or otherwise) or unspecified set of values. In example (79) a set of 'women' is 'checked' against a set of other entities, while in (80) a property of 'being clever' is checked against a set of other properties.

- | | |
|--|-----------|
| (79) Umnaja ŽENščina, ne devočka, ne ktoto drugoj. | Russian |
| Umna žeNA, ne momiče, ne njakoj drug. | Bulgarian |
| 'A clever WOMAN, not a girl, not somebody else.' | |
| | |
| (80) UMnaja ženščina, ne glupaja, ne kakajato drugaja. | Russian |
| UMna žena, ne glupava, ne njakakva druga. | Bulgarian |
| 'A CLEVER woman, not a stupid one, not some other kind.' | |

The set of other objects can be either restricted (defined) in (81) and (82), or unrestricted (undefined) in (83) and (84). A preferred set is the one that is contrasted with restricted and unrestricted sets. The meaning of 'preferred' is that a set is contrasted with another set as it had undergone the 'exclusion' function.

- (81) The preferred set *ženščina* (woman) contrasted with a restricted set *ženščina ili devočka* (a woman or a girl)

- Kto takoj umnyj sdelal eto, ženščina ili devočka? Russian

‘Which clever person did that, the woman or the girl?’

- Umnaja ŽENščina.

‘The clever woman.’

- Koj umen e napravil tova, ženata ili devojkata? Bulgarian

‘Which clever person did that, the woman or the girl?’

- Umnata žeNA.

‘The clever woman.’

(82) The preferred set *umnaja* (clever) contrasted with a restricted set *umnaja ili krasivaja* (clever or beautiful)

- Kakaja ženščina skoree dob’jotsja uspexa, umnaja ili krasivaja? Russian

‘Which woman will be more successful, the clever one or the beautiful one?’

- UMNaja ženščina.

‘The clever woman.’

- Koja žena ste postigne uspex, umnata ili krasivata? Bulgarian

‘Which woman will be more successful, the clever one or the beautiful one?’

- UMNata žena.

- ‘The clever woman.’

(83) The preferred set *ženščina* (a woman) contrasted with an unrestricted set

- Kto takoj umnyj vošjol v komnatu?

‘Who is that clever person that entered the room?’

- Umnaja ŽENščina.

'The clever woman.'

- Koj e umnijat, kojto vleze v stajata?

Bulgarian

'Who is that clever person that entered the room?'

- Umnata žeNA.

'The clever woman.'

(84) A preferred set *umnaja* (clever) contrasted with an unrestricted set

- Sredi vse ostal'nyx ženščin, kto dob'jotsja uspexa?

Russian

'Who will be succesful among all the other women?'

- UMnaja ženščina.

'The clever woman.'

- Sred vsički ostanali ženi, koja ste postigne uspeh?

Bulgarian

'Who will be succesful among all the other women?'

- UMnata žena.

'The clever woman.'

As the next step, a symmetric relation is established between two sets: 'women' and 'clever entities', where *ženščina* (woman) is a preferred set in (81) and (83), and *umnaja* (clever) in (82) and (84). Thus, the process of establishing predication relations within NP *umnaja ženščina* (clever woman) with a focus on *ženščina* (woman) can be analyzed as two steps (I and II), where I has two options (a) and (b).

Step I option (a) excludes the entity *ženščina* (woman) from a restricted set, step I option (b) excludes the same entity from an unrestricted set in (85).

Step I option (a) excludes the quality *umnaja* (clever) from a restricted set, step I option (b) excludes the same entity from an unrestricted set in (86).

(85) umnaja ženščina

- I. a. $z \rightarrow X$
 $z \notin X$ $z = \text{ženščina}$ $X = \text{restricted set}$
- b. $z \rightarrow Y$
 $z \notin Y$ $z = \text{ženščina}$ $Y = \text{unrestricted set}$
- II. c. $z \rightarrow U$
 $z \in U$ $z = \text{ženščina}$ $U = \text{umnaja}$
- d. $u \rightarrow Z$
 $u \in Z$ $u = \text{umnaja}$ $Z = \text{ženščina}$

(86) UMnaja ženščina

- I. a. $u \rightarrow X$
 $u \notin X$ $u = \text{umnaja}$ $X = \text{restricted set}$
- b. $u \rightarrow Y$
 $u \notin Y$ $u = \text{umnaja}$ $Y = \text{unrestricted set}$
- II. c. $z \rightarrow U$
 $z \in U$ $z = \text{ženščina}$ $U = \text{umnaja}$
- d. $u \rightarrow Z$
 $u \in Z$ $u = \text{umnaja}$ $Z = \text{ženščina}$

In (86) where within NP *umnaja ženščina* (clever woman) the focus is on *umnaja* (clever), the set of clever things is also referred to a pre-existing (restricted in (86 a) and unrestricted in (86 b)) set of things that fall outside the scope of *umnaja* (clever).

Step II involves two simultaneous functions (c) and (d). At this point a predication relation is established between the set of 'clever entities' and the set of 'women'. Thus, stage II is the same in both (85) and (86).

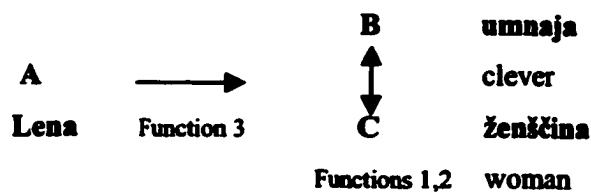
When a NP *umnaja ženščina* (clever woman) appears as a predicate (87), Stage II can be reanalyzed as having two patterns according to which predication is established, as has been proposed in this Chapter. Example (87) can have two meanings (88 a) and (88 b).

(87) **Lena umnaja ženščina.**
Helen clever woman
‘Helen is a clever woman.’

(88)a. **Helen is clever as a woman.**
 b. **Helen is clever and Helen is a woman.**

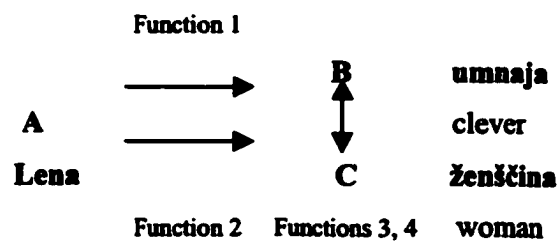
Variant I accounts for the meaning where Helen is clever as a woman only in (88 a).

(89) **Variant I.**



In (88 b), A combines with B (Function 1) and with C (Function 2) first. Functions 1 and 2 are assumed to be operating simultaneously. Then the resulting two sets [A, B] and [A, C] are conjoined (Function 3).

(90) **Variant II**



Stage II may involve different ways of establishing sentential predication, depending on the type of predicative adjective (relative vs. non-relative).

To conclude, predication relations both within NPs and on a sentential level can be reanalyzed as a set of ordered functions. The choice of a function depends on whether some element is focused or not, and on the adjective type.

3.7.2 First/ second-order predication and contrastive focus.

Having discussed the correlation of focus and syntactic predication in NPs, let us look at it from the point of view of the sentence level. According to Rooth, in example (91) the element that is focused is fed in last: *Mary* in (91 a) and *Bill* in (91 b).

(91) a. $\lambda x [\text{invite}(x, b)] m$ [Mary]_F invited Bill

λx is a set of all persons who invited Bill

b. $\lambda y [\text{invite}(m, y)] b$ Mary invited [Bill]_F

λy is a set of all persons who were invited by Mary

Rooth, 1996

The suggestion presented here is that the ‘exclusion’ function applies first, and then the arguments are fed in to saturate predicative functions in their natural semantic (bottom-up) order.

(92) $\lambda x [\text{invite}(x, b)] m$ [Mary]_F invited Bill

1. *Mary* is contrasted with an unrestricted / a restricted set
(‘Who invited Bill?/ Was it Mary or Joe who invited Bill?)
2. the argument *Bill* is fed in
3. the argument *Mary* is fed in

(93) $\lambda y [\text{invite}(m, y)] b$ Mary invited [Bill]_F

1. *Bill* is contrasted with an unrestricted /a restricted set
(Whom did Mary invite? Did Mary invite Bill or John?)
2. the argument *Bill* is fed in
3. the argument *Mary* is fed in

Thus, predication within NPs can be compared with sentence-level predication in that the functions are ordered and one has to apply before the other.

To conclude, two-stage predication relations within NPs with a focused element can be compared to predication at the sentence level: first-order predication is followed by second-order predication (stage II follows stage I). In the case of a contrastive focus we establish a first-order 'focus' predication from one element to either a specified or an unspecified set which contains an alternative value, and only after that a second-order predication between this element and the second component of the NP is established. Within neutrally focused NPs, on the other hand, a predication relation is achieved without any preceding operation on a focused element.

3.8 Summary and conclusions

In this Chapter I revised some approaches to Small Clauses, and showed how Russian data helps to support a view according to which a SC predicate and its argument form a constituent. According to the analysis presented here, Case can be assigned to predicates of Small Clauses either by a verb or by concord. This accounts for the Instrumental vs. Nominal Case alteration exhibited by Russian predicative NPs in Small Clauses.

I also explored the ways in which predication is established on a sentence level and within NPs. Predication can be represented as the ordered set of functions, which is also true for predication relations within NPs. It was shown that redication and focus in Russian and Bulgarian can be compared along similar lines.

Chapter IV. On Reflexivity, Passivization, and Case Assignment

4.1 Introduction

The aim of this Chapter is to establish to what extent reflexivity can be viewed as a property of transitive verbs, when their subjects and objects represent the same entity. In the case of intransitive reflexives marked by the affix SJA in Russian there is no object; however, the meaning is that the action is self-directed.

I start this Chapter with a comparative analysis of Romance and Slavic reflexive clitics and Russian verbs with SJA, following Rivero (1998, 1998a, 2000). As you will see, both in Slavic and in Romance, reflexives form several distinct groups, which roughly correspond to certain groups of Russian verbs, mostly marked by SJA-postfix.

This analysis is of a particular interest, because, first of all, reflexive clitics have a double status as morphological and syntactic units and the interaction of syntax and morphology is thus made explicit. Secondly, both Russian verbs with -SJA and verbs with reflexive clitics in Romance and other Slavic languages are not homogeneous (i. e. not all of them have a reflexive meaning).

Following a discussion in Chapter I, subjects of underlying resulting clauses of reflexive structures are identified as –PPWs. A hypothesis concerning *De Se* and *De Re* readings of verbs with a reflexive meaning will be presented in order to account for the distribution of verbs found with a SJA-reflexive ending and with a reflexive object SEBJA (oneself).

Hebrew Hitpa'el verbs of the kind *hitra'ek* (wash oneself) and Russian reflexive verbs with SJA such as *myt'sja* (wash oneself) will be compared, and assigned a common syntactic structure; however, this structure is different from the one pertaining to verbs which take reflexive pronouns as their objects in both languages.

I will analyze reflexive verbs from the point of view of unaccusativity, and compare middle and passive formation. Mechanics of passivization and Case-assignment will be presented in light of the ability of certain verbs to appear in resultative structures. I will

also compare two passive forms in Russian and Spanish, and show that both types of passive formation can be analyzed from the point of view of the resultative structure.

It will be shown that ergative verbs have a potential for a resultative structure in Russian. Direct objects appear as agents when the 'result' part of the structure is projected. When verbs are divided between those which can appear in a resultative structure and those which can not, it is important to establish which objects are 'true' direct object. A proof that some of the so-called 'cognate objects' are not objects at all will be presented in this Chapter as well.

4.2 Romance and Slavic reflexive verbs

This part of Chapter IV offers a comparative analysis of Romance and Slavic reflexive verbs with clitics and Russian verbs with reflexive/non-reflexive SJA-postfixes. I will examine the properties of these verbs in light of recent theories to define governing principles according to which they form several distinct groups.

According to Rivero (2000), verbs with reflexive clitics can be divided into several groups, in accordance with the following uses:

(1)

I. Reflexive/ reciprocal:

a. Juan **se** viste. (Spanish)

b. Janek **ubiera się**. (Polish)

'John gets dressed.'

II. Middle:

a. Este coche **se** conduce fácilmente. (Spanish)

'This car drives easily.'

b. **Italianski se** prevežda lesno (Bulgarian)

'Italian translates easily.'

III. Inchoative/ anticausative:

a. El vaso se rompió. (Spanish)

b. Szklanka się rozbiła. (Polish)

‘The glass broke.’

IV. Inherent:

a. María se asusta de Juan. (Spanish)

b. Maria boi się Janka. (Polish)

‘Mary fears John.’

V. Impersonal:

a. Aquí se trabaja mucho. (Spanish)

b. Tutaj się pracuje sporo. (Polish)

‘Here people work a lot.’

VI. Dative impersonal:

Tę książkę czytało mi-Dat. się przyjemnością. (Polish)

‘I read this book with pleasure’.

Also, there is another group which comprises personal verbs with Null Objects (NO) (Rivero, 1999):

VII: Impersonal /NO:

Dziecko się bije.

‘The child fights (others)’.

According to Rivero & Sheppard (2001), impersonals of type (V) in Polish and Slovenian in Slavic contain a syntactically projected Nominative human pronoun, which consists, in logical form, of an existential quantifier and a bound variable. On this view, (V) have a meaning of *Here {one/ a human/ people} work(s) a lot*. (The Nominative Indefinite

Analysis). In (VI), the Dative is an involuntary agent in some Slavic languages such as Polish. Dative Disclosure eliminates the existential or indefinite character of the reflexive, and binds the resulting free variable to the Dative

In this Chapter I will analyze Russian verbs that appear in sentences of the kind *Tut xorošo rabotaetsja/ rabotalos'* ({One/ people} work/ worked here with pleasure) and *Mne xorošo rabotaetsja/ rabotalos'* (I work/ worked with pleasure) where verbs are marked by a reflexive affix *SJA*, along the proposed lines.

4.2.1 Romance and Slavic verbs with reflexive clitics and Russian verbs with *SJA*-postfix

The first group of Romance and Slavic reflexive verbs with clitics corresponds to a number of *SJA*-affixed Russian verbs that presuppose a 'reflexive' action (i.e. where the agent turns the action back upon him/ herself), such as e.g. Vs of personal grooming.

(3)

kupat'SJA	to bathe (oneself)	brit'SJA	to shave (oneself)
gotovit'SJA	to prepare (oneself)	obuvat'SJA	to put on one's shoes
myt'SJA	to wash (oneself)	pudrit'SJA	to powder one's face etc.

These verbs take no direct object in Russian:

(4) Anna kupaetSJA (*sebja/ Mariju)
 Ann bathe-SJA-3d.sg.Pres. herself/ Mary
 'Ann bathes.'

(5) Anna pričjosyvajetSJA (*sebja/ Mariju)
 Ann brush-SJA-3d.sg.Pres. herself/ Mary
 'Ann brushes (her hair).'

In Chierchia (1989) followed by Reinhart (1993, 1996) it is assumed that reflexives suppress the internal argument, while in corresponding unaccusatives it is the external argument that is suppressed. The reduction, which operates on intransitive entries to produce reflexive verbs, applies to a two-place predicate, identifies the two arguments, and reduces the relation to a property. Thus, reflexive reduction takes a transitive verb such as *dress* (*oneself/ somebody else*) and turns it into an intransitive one, such as in *Ann dresses nicely*. According to this theory, SJA in Russian is what indicates that argument suppression takes place, and SEBJA (*my-, your-, our-, them-, him-, herself/selves*) that it does not. As this is the same argument that might or might not be affected, it follows that in all of the above mentioned cases the SJA-affixed verbs in (6 b) must be interchangeable with Vs that take SEBJA as a complement (6 a).

(6)a. kupat' SEBJA	to bathe (oneself)	brit' SEBJA	to shave (oneself)
gotovit' SEBJA	to prepare (oneself)	obuvat' SEBJA	to put on one's shoes
myt' SEBJA	to wash (oneself)	pudrit' SEBJA	to powder one's face
b. kupat'SJA	to bathe (oneself)	brit'SJA	to shave (oneself)
gotovit'SJA	to prepare (oneself)	obuvat'SJA	to put on one's shoes
myt'SJA	to wash (oneself)	pudrit'SJA	to powder one's face

However, the meaning is not precisely the same. Compare examples (7) and (8):

(7) Dani povoračivaetsja.

Dani turn-SJA-3d.sg.Pres.

'Dani turns around.'

(8) Dani povoračivaet sebja.

Dani turn-3d.sg.Pres. himself

'Dani turns himself around.'

Example (7) means only that Dani turns around changing his position, while (8) has an additional meaning that Dani turns his body in a manner which regards it as an external object (for example, when Dani is in a wheelchair).

In the following part of this Chapter, I will discuss the same difference in meaning that holds for Hebrew. Hebrew is an example of a Semitic language that has forms with reflexive meaning similar to that of SJA and SEBJA in Russian.

4.2.2 Russian reflexive and Hebrew Hitpacl verbs

Many of Hebrew verbs have a reflexive/ unaccusative form (binyan Hitpacl), which is a combination of the root and a special affix (HIT-). In many cases, the meaning of Hitpacl Vs corresponds to that of Russian Vs marked by SJA. Here are some examples of such verbs:

(9)	Hebrew	Russian	
	histarek	pričjosyvat'sja	brush (one's hair)
	hitlabeš	odevat'sja	dress (oneself)
	hitraxek	myt'sja	wash (oneself)
	hitgaleah	brit'sja	shave (oneself)
	histovev	povoračivat'sja	turn
	hitgalgel	krutit'sja	roll
	hizdaken	sostarit'sja	get old
	hitromem	podnjat'sja	rise up

Borer and Grodzinsky (1986) argue that the agentive reading of Hebrew Hitpacl verbs such as in (9) is a reflexive reading; however, it is not the reading that is found with reflexive pronouns. Simons (1995) notes that *Dani mistovev* (Dani turns- Hitpacl form) and *Dani misovev et acmo* (Dani turns himself) are not synonymous. The former is “the

only natural way to describe the action of turning one's body or head in a different direction", and the latter cannot be used in that meaning.

The existence of parallel constructions in Russian and in Hebrew leads one to believe that Hitpa'el forms and corresponding SJA-forms represent one and the same language phenomenon. Similar to Russian SJA-Vs (11 a), Hebrew Hitpa'el Vs (10 a) have subjects bearing the same role as the object of their corresponding transitive verbs (10 b).¹

(10)a. Ha-galgal mistovev al ha-seren.
 the wheel turn-HIT-3d.sg.Pres. on the axle
 'The wheel turns on the axle.'

 b. Dani mesovev et ha galgal.
 Dani turn-3d.sg.Pres. Def. the wheel
 'Dani turns the wheel.'

(11)a. Koleso povoračivajetsja na osi.
 wheel turn-SJA-3d.sg.Pres. on axle.
 'The wheel turns on the axle.'

 b. Dani povoračivajet koleso.
 Dani turn-3d.sg.Pres. wheel.
 'Dani turns the wheel.'

The resulting (10 a) and (11 a) can mean that the wheel turned because it was affected by someone/ something other than the wheel itself. Objects such as wheels are usually the

¹ For more detail concerning lexical and semantic representation of resultative structures see Chapter I. I support the argument (Hale and Keyser, 1993, Levin and Rappaport, 1995) that in transitive-unaccusative pairs, the unaccusative alternant is derived from the causative structure, which is the basic lexical representation of the verb.

affected -PPW-agents of result clauses when only the result part of the lexical structure is projected into syntax. The underlying succession of events can be represented as follows:

Causing event 1: Dani/ somebody/ something/ turns the wheel

Resulting event 2: The wheel turned

In the following examples (12) and (13) with Hebrew Hitpacl verbs and Russian SJA-verbs *Dani* is both the causer and the causee of the action of turning, and no other agent of the resulting event is possible. I will assume that only *Dani* can be construed as the agent of the resulting event.

(12) Dani mistovev (*et acmo/ *Ruti) lehistakel le'axor.
Dani HIT-turn-3d.sg.Pres. Def. himself/ Ruti to look behind.
'Dani turns to look behind.'

(13) Dani povoratčivaetsja (*sebjja/ *Ruti) posmotret' nazad.
Dani turn-SJA-3d.sg.Pres himself/ Ruti to look behind.
'Dani turns to look behind.'

The succession of events resulting in (12) and (13):

Causing event 1: Dani turns Dani

Resulting event 2: Dani turned

Note that the preferred reading for *Dani turned* is the one where he himself is responsible for the action, while the action in *The wheel turned* will be most likely perceived as the one caused by an outside agent (e.g. the wind, the engine etc.).

However, *Dani* can play a role of either the 'causer' or the 'causee' of the event (or both), and *the wheel* only of the 'causee'. The difference is that the 'causer' is +PPW, and the 'causee' is -PPW. +PPW agents of cause clauses marked by Nominative Case and –

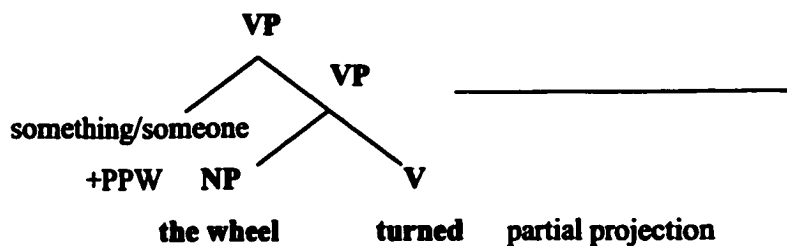
PPW agents are discussed in detail in Chapter I. -PPW agents are characterized by a lack of Personal Willpower (PW). They appear in impersonal sentences of the kind *Lodku uneslo volnoj* (The boat was carried away by the tide), where the -PPW agent *volnoj* (tide) is marked by Instrumental Case (14).

- (14) *Lodku uneslo volnoj* .
 boat-Acc. carried-away-sg.neut. Past tide-Instr.
 'The boat was carried away by the tide.'

It may appear that in both sentences *Dani turned* and *The wheel turned* only the 'result' part is projected into syntax, while both an external (+PPW) and an internal (-PPW) arguments are present in the underlying lexical (double-clausal) structure. However, there is a semantic difference between the two variants one of which has a +PPW agent of the cause clause identified with a -PPW agent of the result clause (16), and the other where no identification takes place (15).²

- (15)a. something/ someone turns the wheel → the wheel turned

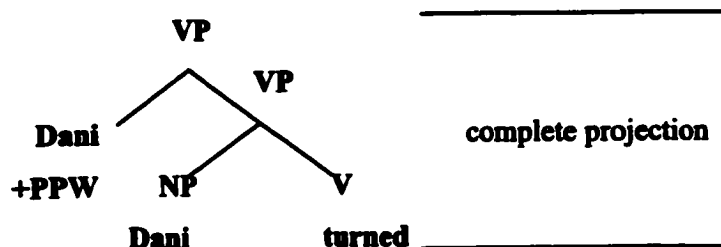
b.



² Identifying two agents can be compared to the process that takes place in identity sentences (see Chapter II).

(16)a. Dani turns Dani → Dani turned

b.



It seems that in (15) a partial projection is the only possibility, while in (16) a complete projection of the structure must result in a sentence with a two-place argument verb. An explanation should follow of how to resolve this problem.

It is worth mentioning at this point that there are quite a lot of arguments in the linguistic literature both for and against the unaccusative analysis of Hebrew Hitpaël verbs. For example, according to Borer and Grodzinsky (1986), the construction with Dative *li* (me) provides a diagnostic for unaccusativity in Hebrew. In this construction, the Dative is used to express a relationship similar to possession. I will call it the intended recipient of the action. Jaeggli (1986) states that this kind of Dative, which is defined as ‘ethical’, involves no possession.

It is argued (Borer and Grodzinsky, 1986) that this type of the Dative must be related to a deep structure internal argument, and thus can be used grammatically with transitive verbs (17), but not with those which are unaccusative (a Hitpaël verb *lehitraxek* (wash) in (18)). Example (17) means that the girl ate the apple on purpose (affecting me in some way, hence *li-me-Dat.*).

(17) Ha-yalda axla li et ha-tapuax
 the girl eat-Past me-Dat. Acc. the apple
 ‘The girl ate the apple.’

(18)*Ha-yeled lo hitraxek li ha-boker
the boy not wash-HIT-Past me-Dat. this morning
‘The boy did not wash up this morning.’

Similar to what is found in Hebrew, the intended recipient of the action (Dat.) appears in Russian sentences with transitive verbs (19 a) but not with unaccusatives (19 b) and reflexives (19 c).

(19)a. Babuška molotkom razbila mne očki.
grandmother-Nom. hammer-Instr. break-fem.sg.Past me-Dat. glasses-Acc.
‘Grandmother broke the glasses with a hammer (which affected me).’

b. Očki razbilis’ (*mne).
glasses-pl.Nom. break-SJA-pl.Past me-Dat.
‘The glasses broke (which affected me).’

c. Deti odelis’ (*mne).
children-pl.Nom. dress-SJA-pl.Past me-Dat.
‘The the children got dressed (which affected me).’

Obviously, for the Dative recipient, the condition of a full projection has to be met. We cannot argue, however, in favor of the absence of –PPW (‘internal’) argument in both (19 b, c); (19 c) is different in that the meaning is self-directed.

Let us go back to the analysis (Chierchia, 1989, Reinhart, 1993, 1996) which suggests that reflexives suppress the internal argument. I will revise the idea of argument suppression in an attempt to provide an explanation for the following facts:

a. that suppressed arguments of reflexive verbs always correspond to the external ones;

- b. that in Russian transitive/ unaccusative morphological forms of verbs are different, in contrast with English.

One might say that in (20 a) the internal argument *kniga* (book) of (20 b) is suppressed, or simply unexpressed; however, it does not correspond to a reflexive argument *sebjā*. Thus, (20 a) cannot mean (20 c). In contrast, the action of reflexive verbs is always directed towards the agent itself.

(20)a. Ja često čitaju.

‘I read often’.

b. Ja čitaju knigu.

‘I read a book’.

c. ? Ja često čitaju sebjā.

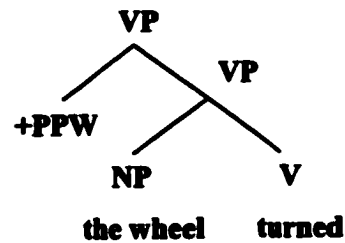
‘I often read myself (like a book).’

Reflexives have a double-clausal lexical structure, because reflexive and/ or self-contained actions are comprised of two events. For example, the event of e.g. ‘brushing’ consists of two (causing and resulting) events. Unaccusatives project into syntax only the ‘result’ part.

Reflexive subject appears as occupying both positions simultaneously: that of a ‘causer’ of the causing event and of a ‘causee’ of the resulting event in the lexical representation. Then the difference between *The wheel turned* and *Dani turned* and their corresponding variants in Hebrew and Russian is that in *The wheel turned*, the position of a ‘causee’ is likely to be occupied by a +PPW agent other than NP *the wheel*. This is because inanimate objects do not usually cause changes and require some external agent for a change of state or position.

(21)a. The wheel turned.

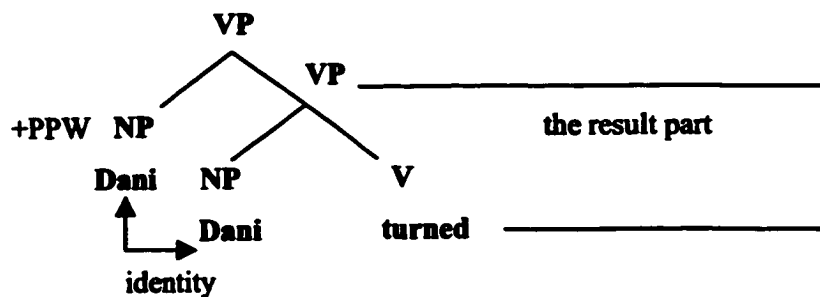
(21)b.



In contrast, *Dani* appears as both the ‘causer’ and the ‘causee’ of the event with a relation of identity holding between the two in (22). This kind of relation is similar, or equal to what is found in identity sentences (see Chapter II). The function of mapping two identical elements and subsequently two parts of the structure, onto each other in (22) is not the same as the one that establishes a relation between the subject and the object in (23).

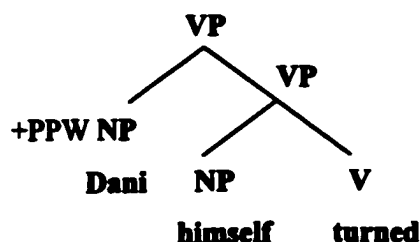
(22)a. *Dani* turned.

b.



(23)a. *Dani* turned himself.

(23)b.



The difference between (22) and (23) is that in (23) there is a relation of identity of a different kind, to be discussed in the following part of this Chapter. The way lexical structures are mapped into syntax is not the same, either. Only the result part is projected in (22). Otherwise, the whole structure is represented in (23).

Due to similarities in the distribution of Hebrew Hitpacl intransitive verbs such as *lehistovev* (turn) and Russian reflexive SJA-verbs such as *povernut'sja* (turn), they are assigned a common lexical structure, corresponding to that of the English *turn* in (22). This structure comprises both the 'causer' and the 'causee' positions, but it cannot be the same as the one with reflexive pronouns.

In the next part, I will argue that reflexive (non-accusative) Vs are semantically different from those with overtly expressed reflexive objects; thus, they must be assigned different structures. The analysis along the lines of *de se* and *de re* readings of reflexives is aimed to account for the differences in meaning of sentences such as *Dani turned* and *Dani turned himself* (22, 23).

4.3 *De Se* and *De Re* readings of reflexives

My general objective here is to explore the distinction between *de se* and *de re* readings of SJA-affixed verbs vs. verbs with reflexive objects. Chierchia's (1989a) outline of a semantics for *de se* attitude throws light on questions of the nature of attitudes towards oneself. It is proposed that properties are the objects of these attitudes rather than propositions. Epistemic access to oneself finds its expression in Italian, for instance, which is illustrated by the following examples:

(24)a. Pavarotti crede che i propri pantaloni siano in fiamme.

‘Pavarotti believes that self pants are on fire.’

b. Pavarotti crede che i suoi pantaloni siano in fiamme.

‘Pavarotti believes that his pants are on fire.’

Chierchia, 1989a, p.24

Thus, a sentence *Pavarotti believes that his pants are on fire* can be assigned the following two representations:

(25)a. believe (P, λy [y is in a world where P’s pants are on fire]) *de re*

b. believe (P, λx [x is in a world where x’s pants are on fire]) *de se*

The truth of a *de se* belief-report entails the truth of a *de re* report, but not vice versa. For example, (26 a) entails (26 b), but (26 b) does not entail (26 a):

(26)a. Pavarotti believes that he, himself has pants on fire.

b. Pavarotti believes that that person (pointing at Pavarotti) has pants on fire.

Chierchia suggests that the ambiguity of some *de re* readings which might either include or exclude awareness (access to oneself) can be resolved at some level in the grammar of English by distinguishing between two separate logical forms.

It is possible that the cognitive access we have to ourselves is always present semantically, but it is not always overtly expressed. One could know all the true propositions and still be unable to locate oneself among the inhabitants of a certain world. According to a ‘self-location’ view of belief, self-ascribing a particular property to oneself amounts to believing that the actual world is located in a region where one possesses this property. The property in this case does not discriminate among the participants of this world. Otherwise, one does not believe oneself to be located in some spatio-temporal region where one satisfies that property. Thus, propositions represent the

alternatives we are confronted with, while properties are recurring patterns that obtain across different ways in which the world can be. In this case the truth of a *de se* belief will entail the truth of a *de re* belief (because a relation towards oneself is linked to a certain *re*), but not vice versa. Attitudes *de re* can then be defined as a special case of attitudes *de se*.

Consequently, according to Chierchia, the non-reflexive Italian pronoun *suo* (*suoi* in (24 b)) can have both a *de se* and a *de re* interpretation, while the reflexive pronoun *proprio* appears to have only a *de se* interpretation. Following this line of analysis, the existence of two reflexive readings can account for the existence of reflexive SJA-marked forms of Russian verbs alongside verbs that take direct reflexive objects such as *pričjosyvat' sja* (comb one's hair) and *pričjosyvat' sebja* (comb one's hair).

A process of brushing involving two participants *x* and *y* can be viewed from the point of view of either *de se* (27 a) or *de re* (27 b) readings:

(27) a. believe ($\lambda y \lambda x$ [*x* combs *y*'s hair, *x* and *y* are in the same world])

b. believe ($\lambda y \lambda x$ [*x* combs *y*'s hair, *x* and *y* are not in the same world])

Examples in (28) show that *modus operandi* of a reflexive clitic SJA is such that its presence signals a *de se* reading. Sentence (28 a) is grammatical as it allows a participant other than the agent, because sentences with *sebja* (-self) can have both *de se* and *de re* readings (like Italian sentences with *suoi*). In contrast, (28 b) has only a *de se* reading, thus any participant other than the agent is excluded. Availability of two readings holds for Hebrew as well in (29).

(28)a. Vera dumaet, čto pričjosyvaet sebja, no na dele pričjosyvaet kogo-to drugogo.

'Vera thinks that she combs her own hair, but in fact she combs somebody else's hair.'

(28)b. *Vera dumact, čhto pričjosyvaetsja, no na dele pričjosyvaet kogo-to drugogo.

‘Vera thinks that she combs-SELF, but in fact she combs somebody else’s hair.’

(29)a. Vera xoševet se hi misareket et acma, aval’ baecem misareket mišchi axeret.

‘Vera thinks that she combs her own hair, but in fact she combs somebody else’s hair.’

b. *Vera xoševet se hi mistareket, aval’ baecem misareket mišchi axeret.

‘Vera thinks that she combs-SELF, but in fact she combs somebody else’s hair.’

The analysis along the lines of *de se* and *de re* readings shows that the semantics of reflexive forms are different, and Russian reflexive forms in (30) cannot be considered completely synonymous to (31).³

(30) kupat’SJA	to bathe (oneself)	brit’SJA	to shave (oneself)
gotovit’SJA	to prepare (oneself)	obuvat’SJA	to put on one’s shoes
myt’SJA	to wash (oneself)	pudrit’SJa	to powder one’s face
(31) kupat’ SEBJA	to bathe (oneself)	brit’ SEBJA	to shave (oneself)
gotovit’ SEBJA	to prepare (oneself)	obuvat’ SEBJA	to put on one’s shoes
myt’ SEBJA	to wash (oneself)	pudrit’ SEBJA	to powder one’s face

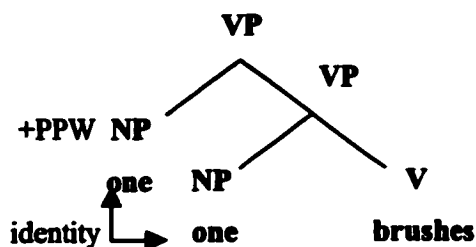
Examples below are aimed to account for this difference. In (32) both the agent and the object of the action have a relation of identity established between them, and as a result

³ M.-L. Rivero notes that *sebja* seems to be in focus. As a clitic/affix *SJA* cannot be under focus, it does not “list” alternatives.

viewed as the same entity (*de se* reading), which is in contrast with (33) where they represent two different entities (*de re* reading).

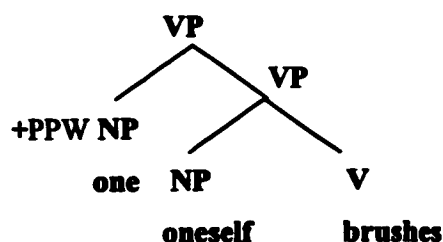
(32)a. One brushes.

b.



(33)a. One brushes oneself.

b.



To conclude, Russian reflexive verbs marked by -SJA and verbs with reflexive objects are semantically different. A relation of identity finds its expression as a reflexive suffix SJA in Russian that marks reflexive verbs. However, the underlying structure in both cases is double-clausal when a reflexive object is present, in contrast with both reflexives and unaccusatives such as *pribyvat'* (arrive).

SJA-affixed reflexive verbs in Russian behave like unaccusatives in that they do not take objects. This mode of syntactic formation can be compared to what is found in French, where both unaccusatives (34 a) and reflexives (34 b) require an auxiliary *être* (be). This is in contrast with *avoir* (have), which is found with transitive Vs (34 c).

Similarly, in Italian both unaccusatives (35 a) and reflexives (35 b) choose *essere* (be), and *avere* (have) is used alongside transitives (35 c).

(34) a. Dani est (-*être*) arrivé.

‘Dani has arrived.’

b. Dani s’est (-*être*) tourné.

‘Dani has turned.’

c. J’ai (-*avoir*) déjà vu cette article.

‘I have already seen this article.’

(35)a. Io sono (-*essere*) partito.

‘I have left.’

b. Io mi sono (-*essere*) vestito.

‘I have dressed myself.’

c. Io ho (-*avere*) cantato la canzone.

‘I have sung the song.’

Also, in French passive constructions of the type *Le déjeuner est déjà pr é paré* (The dinner is already prepared) require *être* (be), in contrast with *J’ai préparé le déjeuner* (I have prepared the dinner) which uses *avoir* (have). Thus, verbs of *essere/ être* (be)-kind and of *avere/ avoir* (have)-kind are sensitive to the structure of a clause they take as an object.

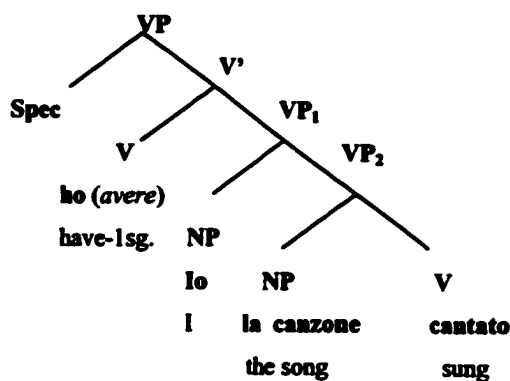
Obviously, both Vs *essere/ avere* in Italian and *être/ avoir* in French show sensitivity to the way semantic structures of the verb are projected into syntax (sf. (36-38)).⁴

⁴ In example (36) *avere* (have) takes a bi-clausal structure which consists of a causative (VP₁) and a resultative (VP₂) clause. In contrast, *essere* (be) in (37) takes a single (non-resultative) clause $VP[lo\ arrivedo]$.

(36)a. Io ho (-avere) cantato la canzone.

'I have sung the song.'

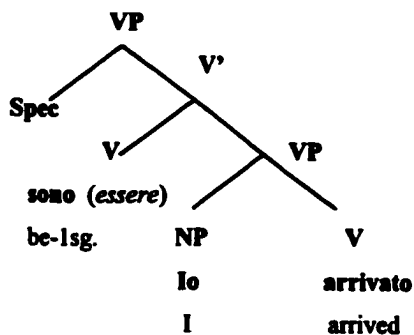
b.



(37)a. Io sono (-essere) arrivato.

'I have arrived.'

b.



Infinitival form of reflexive V *vestirsi* (dress) is similar to the Russian form *odevat'sja* in that both have a reflexive suffix, *SI* in Italian and *SJA* in Russian. Russian preserves its suffix, but in Italian it is detached and becomes a clitic in non-infinitival forms of the verb (*mi-me* in (38)).⁵

Lexical structures of reflexive verbs are similar and follow the same mode of formation in different languages, not only in Russian. Reflexive verbs pattern together with unaccusative verbs.

4.4 Inherent and impersonal reflexives in Russian

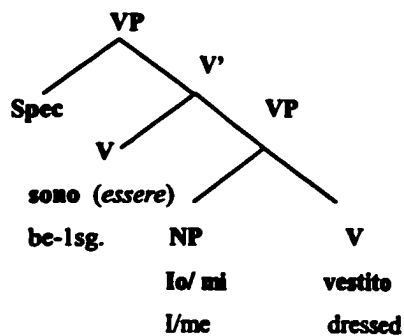
A number of Russian verbs expressing feelings and attitudes are inflected with SJA, and pattern together with inherent reflexives (Rivero, 1999).

⁵ Similar to what is found in (37), the verb *essere* (be) takes a non-resultative (one-clausal) structure (VP) in (38).

(38)a. Io mi sono vestito.

'I got dressed.

b.



- (39)a. *razvlekat'SJA* to amuse oneself
 b. *serdit'SJA* to be angry
 c. *radovat'SJA* to be happy
 d. *bojat'SJA* to be afraid etc.

Some verbs such as *bojat'sja* (be afraid) in (39 d) cannot be used without SJA, and they also take reflexive/ non-reflexive objects. Other verbs expressing feelings and attitudes can be used without SJA (39 a-c). The verb's complement in (40) is expressed in the Genitive (vs. a regular direct Acc. object); the structure is assumed to be unaccusative. Subjects of resultative clauses in a bi-clausal structure are always marked by Acc.; thus, the structure in (40) is other than bi-clausal.

- (40) *Rina boitsja sebja/ svoix čuvstv.*
 Rina afraid-SJA herself-Gen./her feelings-Gen.
 ‘Rina is afraid of herself/ her own feelings.’

Russian impersonal sentences, which roughly correspond to groups V (Impersonal) and VI (Dative Impersonal) mentioned at the beginning of this Chapter, provide another example of SJA-postfixed forms where the meaning is not reflexive.⁶ Examples (41 a-b) do not imply that ‘Ruti writes herself’ or ‘Ruti breathes herself’. The meaning of (41 c) is that it is easy to breathe in the woods no matter who is a participant in the action.

- (41)a. *Rine segodnja xorošo pišetsja/ pisałos’.*
 Rine-Dat. today well writes-SJA-neut.Pres./ -neut.Past
 ‘It is easy for Rina to write (she is in the mood for writing) today.’

⁶ For a discussion of similar constructions in other Slavic languages such as Czech see Rivero (2002).

(41)b. Rine segodnja legko dyšitsja/ dyšalos'.
 Rine-Dat. today easily breathe-SJA-neut.Pres./ -neut.Past
 'It is/was easy for Rina to breathe today.'

c. Legko dyšitsja/ dyšalos' v lesu.
 easily breathe-SJA-neut.Pres./ -neut.Past in woods
 'It is/was easy to breathe in the woods.'

I will draw conclusions concerning lexical structures of Vs with Dative subjects on the basis of my analysis of a double subject position. Russian verbs with Dative subjects are discussed at length in Chapter I. It might be added at this point that, although these subjects occupy a position that can be characterized as associated with a [-PPW]-feature, it is different from a -PPW position of direct agents in Adversity-impersonal sentences in that Dative subjects are experiencers of events rather than causees. In this sense, they can be compared to intended recipients of the action, such as in (19 a).

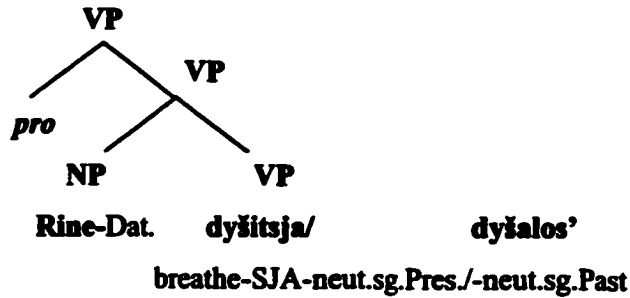
The structure has *pro* in a position of a causer of the event/state both in (41) and in (42). The verb agrees with *pro* (3d.sg.neut.) Dative experiencer position may remain non-projected (41 c), and is restricted to humans (42).⁷

(42)a.* Sobake segodnja xorošo dyšitsja/ dyšalos'.
 dog-Dat. today well breathe-SJA-neut.sg.Pres./ -neut.sg.Past
 'It is/ was easy for a dog to breathe today.'

b. Rine segodnja legko dyšitsja/ dyšalos'.
 Rine-Dat. today easily breathe-SJA-neut.Pres./ -neut.Past
 'It is/ was easy for Rina to breathe today.'

⁷ I disregard the syntactic position of AdvPs *xorošo* (well).

(42)c.



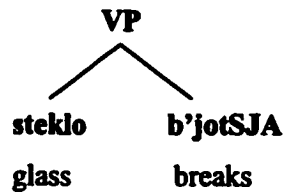
NP *steklo* (glass) cannot be the experiencer of breaking in (43 a) as only humans may occupy Dative experiencer position, but it can be the agent of the resulting event in (43 b).

(43)a. **Steklu legko b'jotsja.*
 glass-Dat. easily break-SJA
 'Glass breaks easily.'

b. *Steklo legko b'jotsja.*
 glass-Nom. easily break-SJA
 'Glass breaks easily.'

In (43 b) the subject is in agreement with the verb and is assigned Nominative Case. The projected structure is mono-clausal in that the property of 'being easy to break' is attributed to the agent *steklo* (glass), while the event of breaking is disregarded.

(44)



There is another group of Russian SJA-affixed verbs that reflect an action where the meaning is non-reflexive, such as in (45) and (46):

(45) *Eta sobaka kusaetsja.*
this dog-3sg.Nom. bite-SJA-3sg.Pres.
'This dog bites.'

(46) *Deti draznjatsja.*
children-3pl.Nom. tease-SJA-3pl.Pres.
'Children tease'

Example (45) implies that 'the dog is capable of biting someone' while the object of biting is absent. In (46), children are performing actions that can be interpreted as teasing, while it is not necessarily directed towards anyone (the object of teasing can be absent). Possibly, the verb is viewed as a property (e.g. being capable of biting) and not as a transitive action; thus, no 'result' part is projected. The structure has one +PPW argument, which is the only participant in the state/ event. From the point of view of the theory developed in this thesis, the meaning is non-reflexive due to the absence of identification function required by true reflexives.

To conclude this part, Russian SJA-affixed verbs form several distinct groups. One of the groups includes verbs with a reflexive meaning, such as e.g. verbs of personal grooming, where there is no object other than a participant itself. The meaning of another group of verbs (such as *bojat'sja* - have fear) does not imply reflexivity at all. The reflexive affix in this case serves as a transitivity block. Yet another group is comprised of the verbs with Dative subjects (experiencers of the action) where the object (reflexive or other) is neither presupposed nor expressed. Thus, SJA-affixation in Russian signals the absence of an object, but does not always correspond to reflexivity.

4.5 Middles and passives in Russian

In this part I will claim that middle and passive formation in Russian can be accounted for from the point of view of semantics of the event structure. In the linguistic literature three functional projections have been proposed: a causing projection, a process projection, and a result projection (Hale and Keyser, 1993, Borer, 1998, etc.). I will concentrate on the causing and the result projections.

Some recent analyses concerning middle formation (Fagan, 1988, 1992, Ackema and Schoorlemmer, 1994, 1995) suggest that middles do not project an external argument. Also, Keyser and Roeper (1984), Stroik (1992, 1995), Hoekstra and Roberts (1993) assume that middle formation require the suppression of an external argument. Stroik (1999) argues that middle formation involves the demotion of the external (Agent) argument to an adjunct position (i.e. in *Bureaucrats bribe easily for Sam* a prepositional object *for Sam* is linked to a syntactically projected agent of the verb *bribe*).

Russian middles and passives have similar SJA-inflected forms; however, passives might involve Instrumental subjects, in contrast with middles.

One of the earliest proposals for English is that in the formation of the passive the verb transmits the subject theta-role to the preposition *by*. In its turn, the *by*-object is assigned the subject theta-role. However, in certain circumstances no *by*-phrase is required (or it might be optional).

My hypothesis is that the Russian SJA-affix allows the accusative property of the verb to be incorporated, thus active and passive variants of the same sentence have parallel basic semantic structures. However, middles have only the 'result' part projected into syntax.

Russian exhibits a similar phonological expression for middle and passive forms. There is a clear difference between (47) and (48). The former does not imply that there exists some agent of the action of 'selling', it simply attributes the property of being successful merchandise to the carpets. In (48) the agent can be explicitly realized. The phonological

form of the verb does not allow us to distinguish between two semantically different representations as *prodajutsja*-sell has the same form in both examples.

- (47) Ručnye kovry xorošo prodajutsja (*Beduinami).
 handmade carpets good sell-SJA Bedouins-Instr.
 'Handmade carpets sell well.'

- (48) Ručnye kovry prodajutsja Beduinami na rynke.
 handmade carpets are sold-SJA Bedouins-Instr. on market
 'Handmade carpets are being sold by the Bedouins at the market.'

In English two different grammatical forms represent these two meanings:

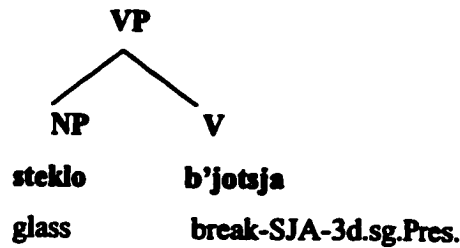
- (49) Carpets sell well.

- (50) Carpets are sold at the market (by Bedouins).

According to Fagan (1988), among many others, middles do not describe events, but attribute properties to objects that hold regardless of time. In the Russian middle (51) there is no position for a +PPW agent, as only the 'result' part of the structure is projected.

- (51)a. Steklo legko b'jotsja (*det'mi).
 glass easily breaks children-Instr.
 'The glass breaks easily.'

(51)b.



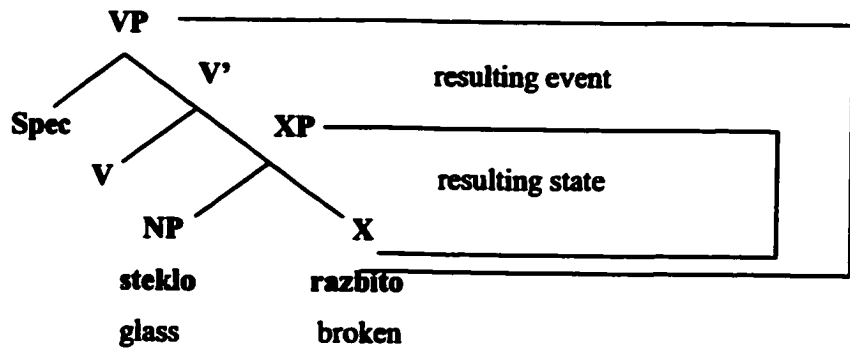
Supposedly, both the middle and the passive constitute the 'result' part of the lexical structure that has two parts: the 'resulting event' part and the 'resulting state'. Then they can be united in the following structure:

(52)a. Steklo razbito.

glass broken

'The glass is broken.'

b.



The lexical structure of the 'result' event consists of the verb *bit'sja* (break-Intr.) taking a 'resulting state' clause as its complement.

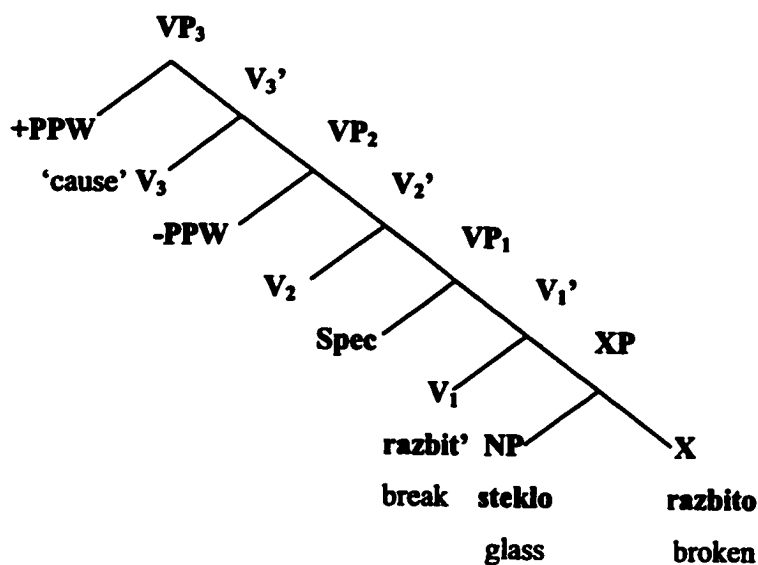
Chapter I discusses the difference between +PPW and -PPW theta roles. +PPW characteristics include the ability to cause events, such as in transitive constructions where the subject is marked by Nominative Case in Russian. The -PPW agents, on the other hand, are viewed as non-volitional means or substances – participants of events,

characterized by a lack of Personal Willpower. These are for example Instrumental agents of Russian Adversity-Impersonal sentences.

Following this line of analysis, in a passive (50) the +PPW indirect causer of the event is remains unrealized, as there is no event but the resulting state of the event (i.e. a broken glass). Furthermore, the position of a –PPW agent marked by Instrumental Case is optionally present (*mnoj-me-Instr.*), alongside the second –PPW instrument itself (*molotkom-hammer-Instr.*). Thus, a transitive verb *razbit'* (break) has a structure with a double subject (+PPW and –PPW, volitional and non-volitional) position. The verb V_1 takes the 'result state' XP as its complement. Both +PPW and –PPW appear in active sentences, where +PPW is obligatory and when an instrument is employed. Passive constructions project the 'state' part with optional –PPW agent(s) (53 a-b). The lower part of lexical structure is realized in middle constructions, where the 'state' segment remains unrealized (53 c-d).

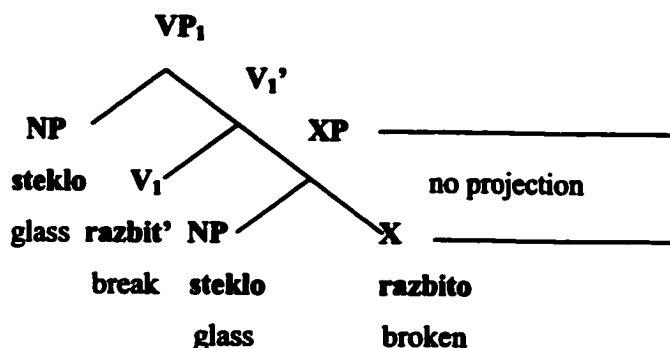
- (53)a. *Steklo rasbito* (mnoj molotkom).
 glass-sg.neut. broken-sg.neut. me-Instr. hammer-Instr.
 'The glass is broken.'

b.



(53)c. **Steklo legko bjotsja.**
 glass easily breaks
 'The glass breaks easily.'

d.



The structure of transitive verbs thus appears as having two (the cause and the result) projections, each in its turn consisting of two parts. The cause part involves two (volitional and non-volitional) agents. Each +PPW and –PPW agent occupies a unique structural position, as is seen in (54 a) and (54 b).

(54)a. **Sam (*Mary) breaks the glass.**

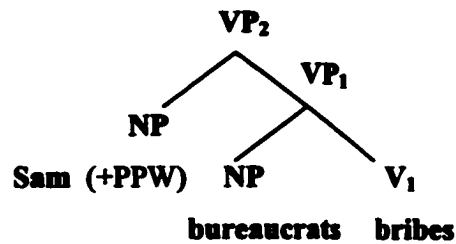
b. **Sam breaks the glass with a stone (*with a hammer).**

The structure that includes both the cause and the result parts requires an obligatory +PPW agent. In example (55 a) *Sam* is the obligatory causing (+PPW) agent of the event of bribing bureaucrats. In (55 b) the sentence ascribes the property of being easily bribed to bureaucrats without stating who does the bribing. The property can be 'relativized' to *Sam*; however, there is no event of bribing with *Sam* as the initiator. In this sense (55 a) and (55b) are two different projections of the same structure.⁸

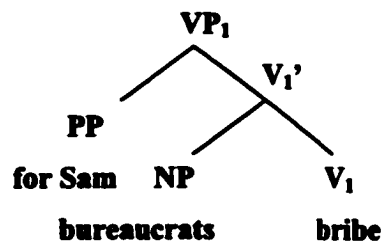
⁸ I disregard the PP position of *with ease*.

Moreover, only the 'resulting state' part is obligatorily projected in passive forms. The NP *bureaucrats* is a subject of the lower (state) part of the 'resultative' clause (55 c).

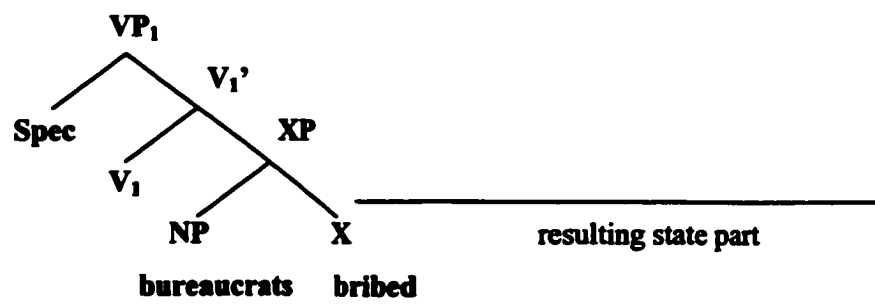
(55)a. **(Sam) bribes bureaucrats with ease.*



b. *Bureaucrats bribe easily (for Sam).*



(55)c. *Bureaucrats are easily bribed.*



To conclude, although the underlying lexical structure of the verb is the same in active, passive, and middle constructions, the way it is projected into syntax accounts for the differences of interpretation.

4.6 Mechanics of passivization and Case-assignment in Ukrainian

One of the arguments against the structural consistency of active and passive formation is that Passive morphology is claimed to have the unique property to absorb Accusative Case of the object, which has to raise to receive Case. I will argue in this part that it is not always so; in some languages, such as Ukrainian, the Case is preserved.

Sobin (1985) claims that certain Ukrainian passive constructions indicate that a Case-absorption property is not universal, and Ukrainian allows participial forms of the verb that need not agree with the subject (56).

- | | | | |
|----------------------------------|--------------|--------------------|--------------|
| (56) Stadion | bulo | zbudovano | v 1948 roci. |
| stadium- masc.Acc. | be-neut.Past | build- neut. Part. | in 1948 |
| 'The stadium was built in 1948.' | | | Sobin, 1985 |

In addition, Ukrainian has a regular passive construction that contains a Nominative form of the subject NP which is in agreement with a copular *buty* 'be):

- | | | | |
|----------------------------------|--------------|--------------------|--------------|
| (57) Stadion | bul | zbudovan | v 1948 roci. |
| stadium- masc. Nom. | be-masc.Past | build - masc.Part. | in 1948 |
| 'The stadium was built in 1948.' | | | |

Masculine inanimates in Ukrainian have the same form in the Nominative and Accusative Cases; however, the N in example (56) is accusative, as is shown by replacing it with a feminine N, in which case Acc. is clearly indicated by the ending *-u* (58). Nominative subjects are prohibited from appearing in these constructions.

(58) (*Cerkva) cerkvu bulo zbudovano v 1640 roci.
church-fem.Nom. church-fem.Acc. be-neut.Past build- neut. Part. in 1640
‘The church was built in 1640.’

Sobin maintains that the *o*-forms characterized by the absence of nominative subjects and the resulting *o*-inflections on the verb *bu-* and on the past participle form are in fact products of Past Passive Participle formation, and the *o-* is a suffix in agreement with a deep empty subject.

Following the analysis presented in Chapter I, Ukrainian sentences such as (58) have an empty *pro* in a subject position which is in agreement with a copular *buty* (be) and the verb. The NP *cerkvi* in Ukrainian behaves as a regular direct object by taking on Genitive Case in a simple negative sentence (59). The object of *o*-forms moves to a subject position to satisfy the EPP feature.

(59) Cerkvi ne bulo zbudovano v 1640 roci.
church-fem.Gen. not be-neut.Past build- neut. Part. in 1640
‘The church was not built in 1640.’

By assumption, out of two subject positions, one position is occupied by *pro*, while the other is eliminated in the process of passivization. Thus, such constructions do not allow a Nominative subject, while the object receives Accusative Case in situ. The verb *bulo* (was) is in agreement with *pro*.

(60) (*Vin)/ *pro* bulo zbudovano cerkvu.
he be-neut.Past built church
‘The church was built.’

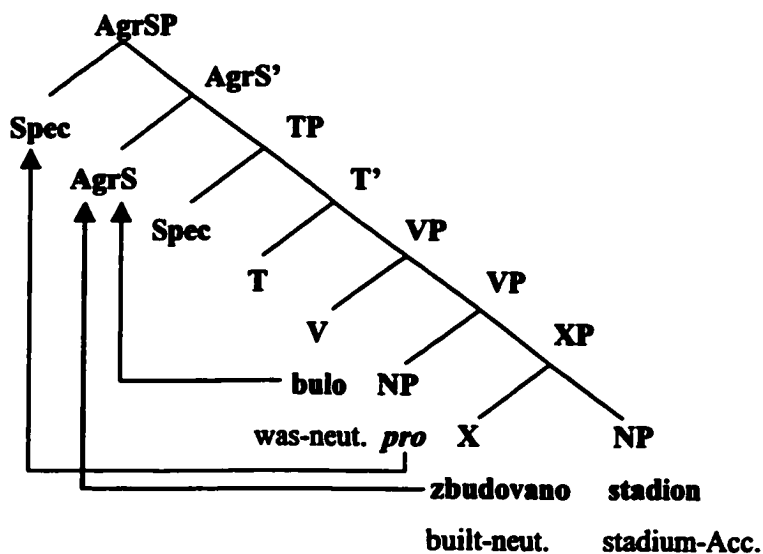
North Russian data shows that an object can raise to [Spec, TP] to receive Nom. Case, while the agreement holds between *pro* and V *privedeno* (brought) (61).

- (61) U Surki privedeno svoja staraja nevesta.
 by Surki bring-neut.Past his-own-Nom. old-Nom. bride-Nom.
 lit. 'There was brought his own old bride by Surka.'

The structures below are aimed to show three possible modes of agreement for an impersonal passive (62) and for a regular passive (63) in Ukrainian, and for a passive with a Nominative object in North Russian (64).

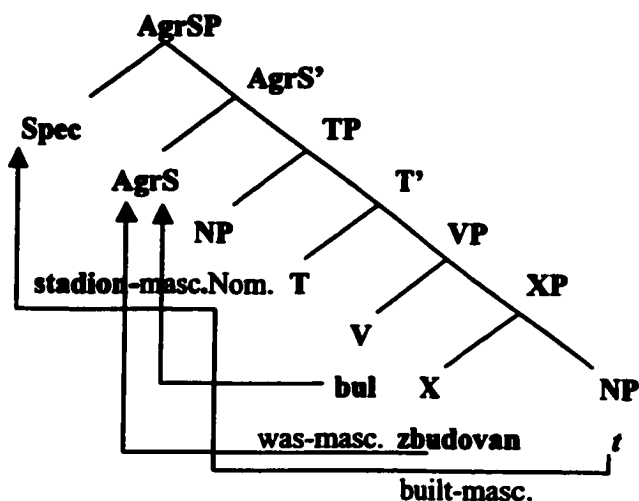
- (62)a. Stadion bulo zbudovano v 1948 roci.
 stadium- masc.Acc. be-neut.Past build- neut. Part. in 1948
 'The stadium was built in 1948.' Sobin, 1985

b.



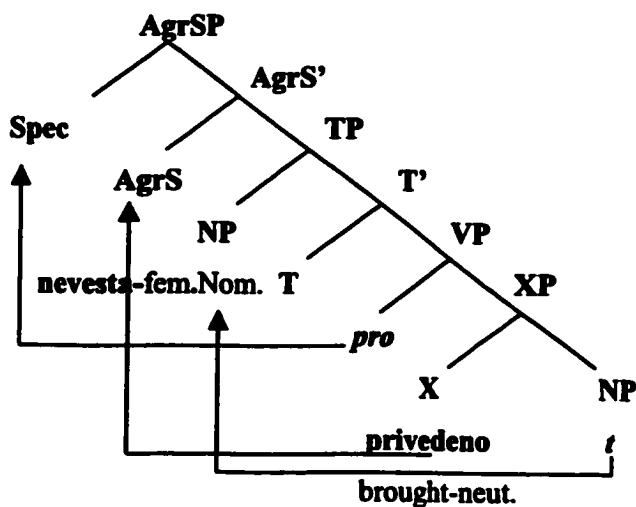
- (63)a. Stadion bul zbudovan v 1948 roci.
 stadium- masc. Nom. be-masc.Past build - masc.Part. in 1948
 'The stadium was built in 1948.'

b.



- (64)a. U Surki privedeno svoja staraja nevesta
 by Surka bring-neut.Past his-own-Nom. old-Nom. bride-Nom.
 lit. 'There was brought around his own old bride by Surka.'

b.



Agreement is possible between the *pro*-subject and the verb in (62) and (64), as well as between the object (first raised to [Spec, TP] to receive Nom.Case) and the verb in (63).

By assumption, the *pro*-subject is raised to [Spec, TP] to receive Nom.Case, just like a regular subject.

As a conclusion, when the objects of passive constructions receive Case in situ, morphological agreement holds between a pleonastic element (which is assigned Nominative Case) and a verb. Otherwise, they can raise to [Spec, TP] to receive Nominative Case and then to Agr to satisfy the requirements of agreement.

4.7 On the resultative structures with locative PPs.

In the following section I will take under consideration Russian resultative structures with locative PPs, and briefly analyze a number of intransitive verbs marked by a prefix.

Resultative structures were extensively explored (Levin & Hovav 1994, 1995, Rappaport-Hovav & Levin, 1995, 1998), and the conclusion was that resultative constructions are possible with unergative but not unaccusative verbs. For instance, the verb *laugh* in *They laughed* can enter a resultative structure in *They laughed him off the stage*, in contrast with *arrive* that cannot enter a resultative construction of any kind.

Burzio's generalization (1986) which states that a verb assigns Case to a VP internal position if that verb assigns an external theta-role predicts that unergative verbs are always potential Case-assigners, although this property is not always syntactically realized. Following the analysis developed in this thesis, the major difference between unergative and unaccusative verbs is that the former but not the latter have an underlying double-clausal resultative structure. According to this theory, unergative verbs represent a higher part of the structure, with a potential to augment it.

Resultative predicates may be predicated only of a direct object. Thus, *off the stage* is predicated of *him* in (65 a). A resultative predicate of unergatives requires a reflexive as a direct object when it is predicated of the subject (65 b).

(65)a. They laughed **(him) off the stage*.

(65)b. He laughed himself hoarse.

According to Rappaport-Hovav and Levin, lexical resultatives are an augmentation of the argument grid. Based on the assumption that a verb is a constant associated with a particular event structure or with a range of event types (if they are 'similar enough'), the extended verb meaning of *laugh* in (65 a) can be represented as (66).

(66) a. [[X ACT-_{laugh} Y] CAUSE [BECOME [Z AT <PLACE>]]]

b. [[They ACT-_{laugh} him] CAUSE [BECOME [him AT <off the stage>]]]

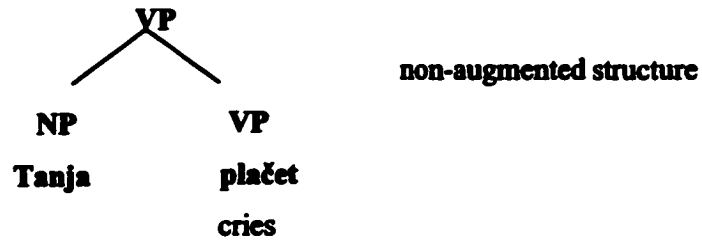
I will assume that unaccusative Russian verbs such as *pribyl*-arrived in (67) do not enter the resultative construction; the structure cannot be augmented both in Russian and in English.

(67) Poezd pribyl (*passažirov/*sebjja) na železnodorožnuju stanciju.
train arrived passengers/ itself at railway station
lit. 'The train arrived the passengers/itself at the railway station.'

Russian non-resultative (e.g. *plačet*-cries in (68)), which as a rule do not take direct objects, can appear in the resultative structure as a realization of their potential accusativity (68 c, d). The resultative verb is marked by a perfective prefix VY as a sign of its augmented lexical structure (*VYplakala*- cried out).

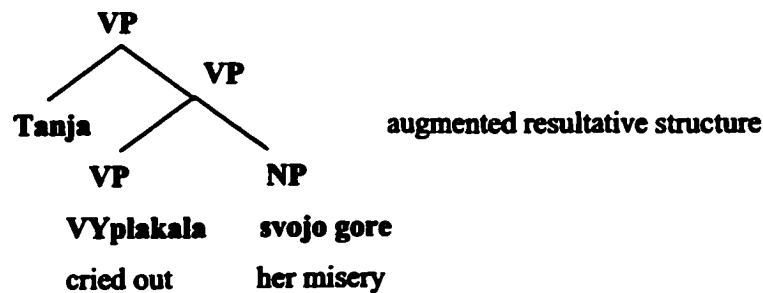
(68) a. Tanja plačet (*svojo gore).
Tanja cries her misery
lit. 'Tanja is crying her misery.'

(68)b.



c. Tanja vyplakala svojo gore na pleče u Garika.
 Tanja VY- Pref.-cry-Past. her misery-Acc. on shoulder with Garik
 lit. 'Tanja cried her misery out on Garik's shoulder.'

d.



Here is another example of a resultative verb *vysmejat* (laugh off) (69 b) as an augmented lexical structure of *smejat'sja* (laugh) (69 a):

(69)a. My smejalis' (*klouna so sceny).
 we laugh-Past clown-Acc. off stage
 'We laughed.'

b. My vysmejali klouna so sceny.
 we VY-Pref.-laugh-Past clown-Acc. off stage
 'We laughed the clown off the stage.'

The resultative (augmented) structure with a causative and a resultative part is completely projected into syntax in (68 d) and (69 b). The +PPW agents of events of dancing and crying are obligatorily present. Thus, Adversity-impersonals are excluded (70).

- (70)* Na ulice plakalo/ tancevalo (Tanej).
 on street cry-neut.sg.Past dance-neut.sg Past Tanja-Instr.
 lit. 'It danced/cried on the street (by Tanja).'

The conclusion is that certain non-transitive verbs have a potential for the resultative structure in Russian. In case of such verbs, a +PPW NP subject is obligatory in Russian, and *pro* is excluded. Adversity-impersonal sentences with transitive verbs (e.g. (71)), in which the agent of the 'cause' projection is represented by *pro*, are discussed in Chapter I.

- (71) *pro* vetrom otorvalo/sorvalo vetku ot/ s dereva.
 wind-Instr. OTO-/ SO-tear-neut.Past branch-Acc. away from/from tree
 'The branch was torn off the tree by the wind.'

Corresponding personal sentences have a regular Nominative agent.

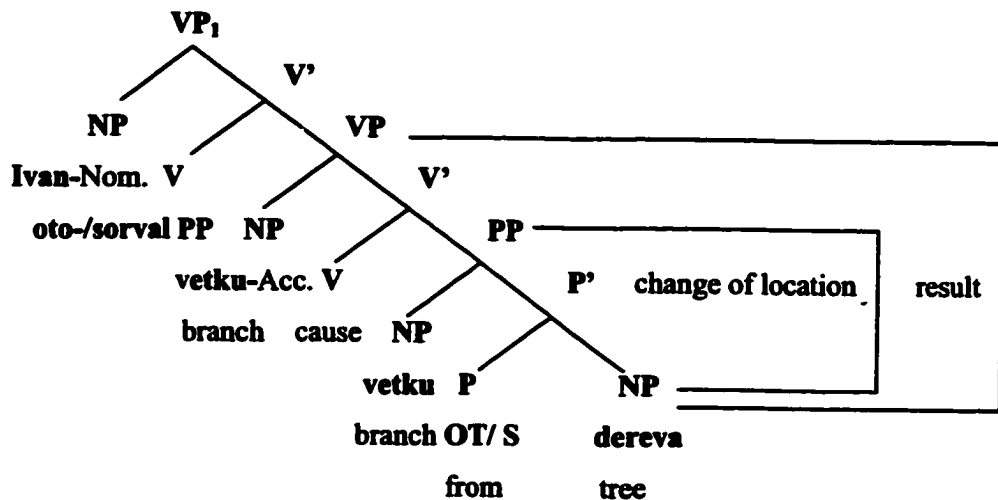
- (72) Ivan otorval/sorval vetku ot/ s dereva.
 Ivan-Nom. OTO-/SO-tear-masc.Past branch-Acc. away from/from tree
 'Ivan tore the branch off the tree.'

The following examples show that, similar to the intransitive verbs such as *plakat'* (cry), the resultative structure of transitive verbs can be further augmented to include the 'change of state/ location' part.

(73)a. Ivan rval vetku.
 Ivan-Nom. tear-masc.Past branch-Acc.
 'Ivan tore the branch.'

b. Ivan otorval/sorval vetku ot/ s dereva.
 Ivan-Nom. OTO-/SO-tear-masc.Past branch-Acc. away from/from tree
 'Ivan tore the branch off the tree.'

c.



Thus, the 'result' part of the projection is represented as having the 'resulting state/ change of location' part, which is realized as a locative PP.

When the 'result' part of the structure is projected, direct objects play the role of agents of the resultative clauses. Thus, in order to establish whether a certain verb can appear in a resultative structure, it is important to obtain a clear-cut definition of a direct object.

4.8 Cognate Objects that are not objects

In this part I will show that ‘cognate’ objects that appear with unaccusative verbs such as e.g. *umeret’* (die) in *On umer strašnoj smert’ju* (He died a horrible death-Instr.) cannot be assigned a status of objects. Cognate objects are discussed at length in Massam (1990) and Mittwoch (1998).

It appears that only direct objects can be assigned Accusative Case in Russian. Unaccusatives, on the other hand, are found only with modifiers. This claim is supported by the fact that NPs in a modifier position are always assigned Instrumental Case; furthermore, the so-called ‘objects’ cannot appear in a passive construction.

Thus, examples (74 a-c) are cases of NP modification (manner adjuncts), which are optional.

- (74)a. *On umer (strašnoj smert’ju/ *strašnuju smert’).*
he die-Past horrible-Instr. death-Instr./horrible-Acc. death-Acc.
‘He died a horrible death.’

- b. *Ona ulybnulas’ (ulybkoi angela/ *ulybku angela).*
she smile-Past smile-Instr. angel-Gen. smile-Acc. angel-Gen.
‘She smiled a smile of an angel.’

- c. *Ozero krasivo spokojnoj krasotoj/ *spokojnuju krasotu.*
lake beautiful quiet-Instr. beauty-Instr./ quiet-Acc. beauty-Acc.
‘The lake is beautiful with a quiet beauty.’

When transitive verbs appear with ‘cognate’ modifiers, they can take regular Accusative objects as should be expected (75), because Instrumental NPs are not objects. The second NP *nenavist’ju sopernika* (hatred of rival) is not an object in (75), as verbs in Russian do not take two direct objects (76).

(75) Petr nenavidel Ivana (nenavist'ju sopernika).
 Petr hate-Past Ivan-Acc. hatred-Instr. rival-Gen.
 'Petr hated Ivan with the hatred of a rival.'

(76) Petr nenavidel Ivana (*Mariju).
 Petr hate-Past Ivan-Acc. Mary-Acc.
 lit. 'Petr hated Ivan Mary.'

Furthermore, sentences such as 'a death was died' or 'a smile was smiled' are ungrammatical, contrary to what would be expected in case of a transitive construction. It was proposed that certain 'cognate objects' are adjuncts (Zubizarreta, 1987, Jones, 1988), which holds for Russian as well. The idea that only some of 'cognate objects' such as the object of *dance* are true arguments is supported by Russian data. The object of *tancuet* (dances) is Accusative -marked:

(77)a. On tancujet sovremennyj tanec/ pol'ku/ val's.
 he dance-Pres. modern dance-Acc. polka-Acc./waltz-Acc.
 'He dances a modern dance/polka/waltz.'

b. On pojot izvestnuju pesnju.
 he sings well-known song
 'He sings a well-known song.'

These 'cognate' objects can be passivized just like regular direct objects (78 a, b).

(78)a. Byl stancovan sovremennyj tanec.
 was danced modern dance
 'A modern dance was danced.'

- (78)b. Byla speta izvestnaja pesnja.
 was sung well-known song
 ‘A well-known song was sung.’

These objects also appear in unaccusative constructions (79 a, b) as the projection of the lower part of the resultative structure, which reconfirms their status as objects.

- (79)a. Etot tanec legko tancuetsja.
 this dance easily dance-SJA
 ‘This dance is danced with ease.’

- b. Eta pesnja pojotsja s čuvstvom.
 this song sing-SJA with feeling
 ‘This song is sung with feeling.’

In contrast, ‘cognate’ modifiers can participate neither in the middle (80 a) nor in the passive formation (80 b):

- (80) a. * Smert’ uzasno umiraetsja.
 death terribly die-SJA
 lit. ‘Death dies terribly’.

- b. *Ulybka angela byla ulybnuta.
 smile angel-Gen. was smile-Pass.
 lit. ‘Angel’s smile was smiled.’

I have already shown the way in which verbs such as *smejat’ sja* (laugh) realize their potential to appear in the resultative constructions. In contrast, verbs such as *umirat’* (die) do not enter these constructions.

- (81)*Čuma vymerla vsju derevnju.
 plague VY-Pref.-die-Past whole village
 lit. 'The plague died the whole village out.'

Instrumental NPs such *ulybka* (smile) in (74) modify actions and cannot appear as objects. This is in contrast with English where *The smile was smiled* is possible. NPs *tanec* (dance) in (77 a) and *pesnja* (song) in (77 b), which can be passivized, are regular objects. The only difference from the regular objects is that they denote the natural products of a given activity (a song is a result of singing, a dance is a result of dancing etc.). Case in Russian helps establish the syntactic position of 'cognate' objects vs. non-object modifiers, distribution of which differs across languages.

4.9 Conclusions

At the beginning of this Chapter I compared Romance and Slavic verbs with reflexive clitics and Russian verbs with SJA-postfix, and arrived at the conclusion that, both in Slavic and in Romance, verbs marked as reflexives form several distinct groups. Another point is that not all of them have a reflexive meaning.

The 'accusative' approach postulates an operation of reduction of the internal argument, which cannot account for the reflexive vs. non-reflexive meaning of a verb. In case of reduction of the internal argument the difference between reflexive verbs and Vs such as *read* in *I read* is lost. In contrast, the agent of the event of e.g. 'brushing' appears as both the 'causer' and the 'causee' in a reflexive structure.

On the other hand, under the 'unaccusative' approach, the subject of a reflexive is the underlying object of a corresponding transitive verb. However, the underlying object of a transitive reflexive verb is a reflexive pronoun. The semantic meaning is different in *Mary brushes herself* vs. *Mary brushes*. Reflexives such as e.g. *turn* cannot be considered equal in meaning to *turn oneself*. This holds for English reflexives, Hebrew Hitpa'el-form verbs, and Russian verb forms with SJA-reflexive ending vs. those found

with a reflexive object SEBJA (oneself). I have shown that the difference is that of *De Se* vs. *De Re* interpretation.

The approach to the analysis of reflexives offered in this Chapter consists of assigning the resultative (double-clause) structure to the reflexive verbs, where the agent is both the 'causer' of the causing and the 'causee' of the resulting projection. The semantic structure now involves establishing a relation of identity between the two semantic roles, mapping of two parts of the structure onto each other, and the subsequent projection into syntax as a one-place predicate.

Verbs that appear in the middle and passive constructions were compared from the point of view of their resultativeness as well. It was suggested that verbs could be roughly divided into two subcategories: those that have a resultative character and a potential to appear in the resultative structures, and those that do not.

I have argued in this Chapter that passive and active constructions can be treated from the point of view of the resultativeness of the verb in question. The Ukrainian data shows that Accusative NPs do not always undergo Case-absorption in passive sentences, which was considered a unique property of passive constructions. Accusative Case is preserved, for example, in sentences where the verb agrees with a neuter *pro*. Accusative objects can appear in passive constructions in the Ukrainian in contrast with Central and North Russian.

It was shown that certain Russian intransitive verbs (e.g. *tancevat'* - dance) can appear in resultative structures with locative PPs. The resultative structure of verbs that appear in both personal and corresponding Adversity-impersonal sentences can be further augmented to include the 'state' part, which may be represented by locative PPs.

Agents (causees) of the resulting part of the structure are direct objects of a complete projection. A clear-cut definition of a direct object is necessary when trying to understand why a certain verb can or cannot enter a resultative structure, I have presented a proof that some of the so-called 'cognate objects' are not objects, but adjuncts of the verbs they modify.

Chapter V. A Minimalist Approach to Subjects and Predicates

5. 1 Introduction

This Chapter is based on the analyses presented in Chapters I-IV; it also develops an outline for future research.

A brief overview of some recent developments in the Minimalist program will be offered at the beginning of the Chapter, with a focus on Agreement (following Chomsky 1995, 1999, and 2001).

Next, I will support the view that [Spec, AgrSP] and [Spec, TP] are two distinct subject positions within the sentence. Thus, I will not adopt Chomsky's recent proposals that Agr-projections should be eliminated.

The idea that in non-generic sentences in Russian and Hebrew a subject is raised to [Spec, TP] to check the EPP feature of Tense, in contrast with generic structures where a subject checks the EPP feature of AgrS at [Spec, AgrSP], will be presented in this Chapter. Individual and stage-level predicates are associated with a Genericity Feature (GF) of Agr and a Specificity Feature (SF) of Tense, respectively.

The merge of *pro* (*expl*) in the Spec of TP in Russian and Hebrew existential sentences will be presented as another argument in favor of a Specificity feature of T. Following the discussion in Chapter II, Definiteness Restriction effects are present when *pro* (*expl*) merges in [Spec, TP].

As an extension of the idea concerning a double-subject position (Chomsky, 1995), I will assume that the sentential structure involves mapping of the underlying lexical structure.

The resultative character of transitive verbs in Russian will be considered in terms of ordering of sub-clauses. True arguments are viewed as participants (causers vs. causees) of the ordered sub-events, thus, theta-role labeling becomes redundant as based on a subjective description of the attributed properties of arguments.

In conclusion, two types of predicates are represented as being associated with certain sets of features.

5.2 Agreement in terms of the Minimalist program

5.2.1 Tense and Agreement

In the early stages of the Minimalist program, Tense and Agreement morphemes were already analyzed as separate syntactic entities at an abstract level of representation. Pollock (1989) suggested that Infl should be reanalyzed as two separate heads, Tense and Agr. Chomsky in 'Some Notes on Economy of Derivation and Representation' (1989) accepted Pollock's arguments for the existence of AgrP, a maximal projection below Tense (or Negation, when it is present) and above the VP, but defined it as object-AgrP, or the maximal projection carrying agreement features for the object. In his later analysis, Chomsky argued for the existence of two functional heads for Agr, namely, Agr-object (AgrO) and Agr-subject (AgrS). However, in his most recent work, Chomsky (1995) dispenses with Agr as a functional category, because it is needed only for theory-internal reasons, unlike the other functional categories.

One of the reasons to assume that Agr is not needed is the following. On the assumption that all languages are uniform, functional categories like object-AgrP should exist, for example, both in English and in Chinese, while the former has subject agreement only and the latter no agreement at all.

I suggest that a postulation of Agr needs to be regarded as a general rule, while a particular set of agreement features is defined as its outcome within a language-specific domain (parameterization). This approach has been widely used by many supporters of Optimality Theory (Prince, A., Smolensky, P., 1993, among many others), which states that for each (phonological) input there is a unique output for each language in accordance with the rules and constraints imposed by a particular language.

Thus, in English the set of agreement features for object is defined as an empty set; in Chinese both subject and object agreement sets are empty.

The subject cannot raise to [Spec, AgrOP] and the object to [Spec, AgrSP], because movement is constrained by economy principles (Shortest Movement), such as movement

to (and no farther than) the first appropriate landing site. 'Appropriate' in this context includes head-to-head movement, movement from A to A, and from A' to A' positions, where A-positions are those that are theta-marked.

Subject-raising directly from [Spec, VP] to [Spec, AgrSP] is not a violation of shortest movement, as a potential (free-generated) specifier position is present in the derivation only by virtue of its being filled or targeted. Similarly, raising of the object to [Spec, AgrOP] can skip [Spec, VP].

Raising can be either overt or covert, depending on what features (weak or strong) are being checked. Preference of one over the other is language-specific. In the languages where the verb agrees with the subject, it raises overtly to the head of TP and then to the head of AgrSP. Strong features are those that are checked overtly before Spell-Out - such as, for example, the Extended Projection Principle (EPP) feature in English, according to which a subject must move to the sentence-initial position. Weak (agreement) features are checked after Spell-Out at the level of Logical Form.

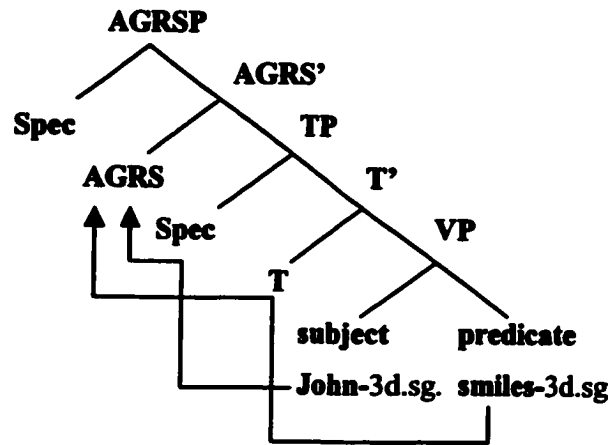
Checking is carried out either by adjoining heads of phrases (Head-Head) or matching features of the head with that of its specifier. For example, the verb's features and the subject NP's features can be checked with the AgrS in English (1).

Chomsky's suggestion to postulate two functional categories within IP, Tense (T) and Agr, has been followed in Alexiadou & Anagnostopoulou (1998) and Jonas and Bobaljik (1993). According to Chomsky (1995), T checks the Tense feature of V and the Case of the subject, and provides a position for subjects (either raised or merged). Agr provides checking of ϕ -features of subject and object.

(1)a. John smiles.

John-3d.sg. smiles-3d.sg.

(1)b.



Postulation of Agr is accounted for by Case Theory as necessary not only for agreement feature-checking but also for the assignment of Nominative Case (Chomsky, 1981, Raposo, 1987); however, there have been recent arguments opposing it (Iatridou, 1990).

In early versions of the Minimalist Program, Case theory holds that both subjects and objects must raise and check Case in the specifier-head relationship with an appropriate functional head, including the heads of AgrP (Chomsky, 1993, 1995). There are suggestions that Nominative Case is checked in [Spec, TP] (Jonas and Bobaljik, 1993, Bobaljik and Carnie, 1992). In case of pleonastic elements such as *there* in English, one assumption is that pleonastics are assigned a 'null' case by some category that assigns this Case only (Bouchard, 1984).

On the grounds of the analysis of Hebrew and Russian data presented in Chapter II, the presence of Pron and N-Pron is a piece of evidence for Agr. This answers the questions of where Agr appears and what the feature constitution of Agr is.

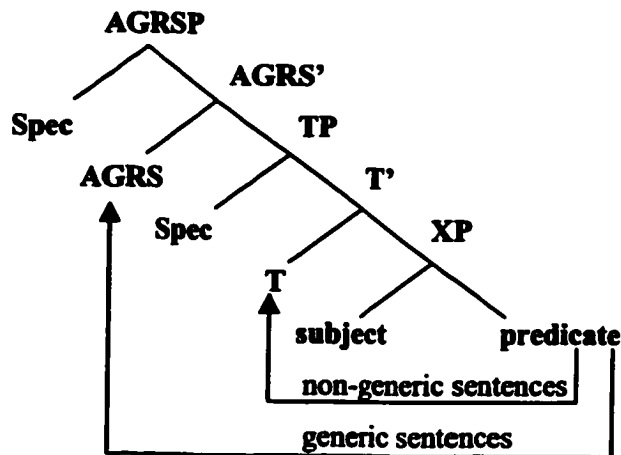
Pron and N-Pron are elements that render a sentence generic in a sense that the quality expressed by the predicate will be realized in all situations possible for the subject (for a short discussion of Necessity-generic and 'Most'-generic sentences see Chapter II). The existence of these syntactic elements is the reason to maintain Agr.

5.2.2 Agreement in Russian, Hebrew, and Spanish

So far, IP has been reanalyzed as AgrP and TP. Thus, the presence of Pron in Hebrew and N-Pron in Russian is associated with a Genericity feature (GF) of Agr. Checking of GF renders a sentence generic when the quality expressed by the predicate is realized in all possible situations for the subject of the sentence. Identity sentences are analyzed as generic in the sense that identities hold across worlds (see Chapter II). Genericity is viewed as having a modal perspective on a personal level.¹ Predicates of generic sentences are raised to AgrS to check GF, in contrast with non-generic structures where predicates check a Specificity feature (SF) of T.²

The following structures illustrate Genericity and Specificity feature-checking in Spanish, Russian, English, and Hebrew.

(2) Genericity and Specificity feature-checking in Russian and Hebrew



¹ Otherwise, the entailment might not hold in general, such as for *The leader of the liberal party of Canada in 2002 is Jean Cretien*.

² Yet another piece of evidence that this is indeed so comes from the fact that the early child language shows agreement on the copula in sentences with individual-level predicates, in contrast with stage-level predicates (the copula is omitted) (See Becker, 2000).

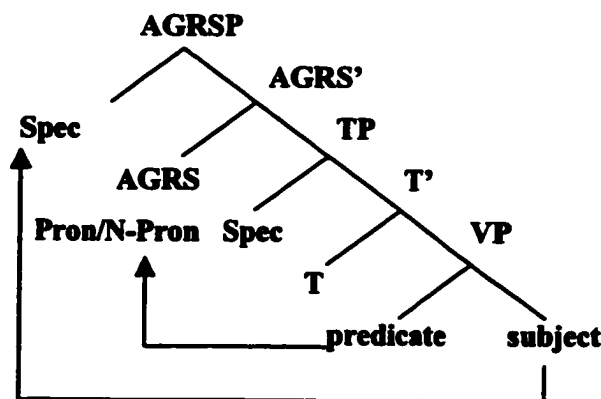
It is suggested here that both in Russian and in Hebrew GF- and SF-checking by the predicates is realized covertly. The EPP feature-checking by the subjects is overt. Let us assume that Nom. Case is assigned in the appropriate Spec positions: in [Spec, AgrSP] of generic sentences and in [Spec, TP] of non-generic sentences.

Sentence (3) is viewed as generic in a sense that the property of 'being smart' is realized in all possible situations for the subject. The NP *Dani* checks the EPP feature of [Spec, AgrSP], which is also the position for the Nominative Case assignment.

(3)a. Hebrew sentences with Pron and Russian sentences with N-Pron

Dani-sg.masc.	hu (Pron)	xaxam-sg.masc.	Hebrew
Dani-sg.masc.	– (N-Pron)	umnyj-sg.masc.	Russian
'Dani is smart (in general).'			

b.

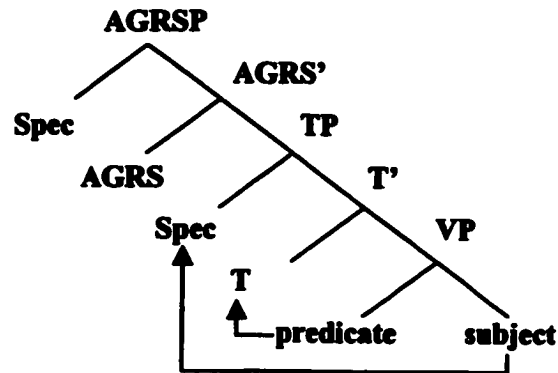


In Hebrew sentences without Pron and Russian sentences without N-Pron the predicates check SF of T (when 'relativized'). The EPP F is checked by the subject in [Spec, TP].

(4)a. Hebrew sentences without Pron and Russian sentences without N-Pron

Dani-sg.masc.	xaxam	hayom-sg.masc.	Hebrew
Dani-sg.masc.	segodnja	umnyj-sg.masc.	Russian
'Dani is smart today.'			

(4)b.



Following Chomsky's recent analysis, in (3) agreement, the EPP, and GF are checked overtly as Agr is overtly realized as Pron/N-Pron, and in (4) agreement, the EPP, and SF are checked overtly as well.

5.3 Agreement in Russian and Hebrew existential sentences

In this part, I will argue for the presence of *pro* (*expl*) in the Spec of TP in Russian and Hebrew existential sentences, as another argument in favor of SF of T. Similar to English *there*, *pro* (*expl*) of Russian and Hebrew renders its 'associate' NP non-specific, giving rise to Definiteness Restriction effects.

5.3.1 A Minimalist approach to subjects of existential sentences

The properties of 'existential' constructions, such as (5), have been much discussed in the linguistics literature.

(5)a. There are people who don't like classical music.

b. There is a man/ there are men in the garden.

Case requirements on expletives and their associated arguments became a focus of attention with the development of Case theory (Chomsky, 1986, 1991, 1993, 1995, 1998). Chomsky (1986) argues that the 'associate' (logical subject of the sentence) of *there* in existential or unaccusative constructions moves to the position of *there* in the LF component, in order to have its Case checked. Further, Chomsky (1991, 1993) develops a theory of Case-transmission. According to this theory, the LF movement of the associate is motivated by Case requirements of the associate of *there*. The presence or absence of a *there*-type expletive is crucial only for the EPP, not for Case and Agreement.

Following Chomsky (1993) Lasnik (1995) assumed LF movement of the associate of *there*. Lasnik argues that the movement is not for Case reasons, but rather to satisfy the LF affixal requirements of *there*, because the relevant Case checking feature must have already been eliminated in overt syntax to avoid a PF violation. Lasnik proposes a theory according to which *be* and other unaccusatives license a Case.

Lexical items fall into two main categories: substantive and functional (Chomsky, 1995). The core functional categories (CFC) are C (force/mood), T (Tense/event structure), and v, the light verb head of transitive constructions. Each CFC allows a Spec position: for C, a raised *wh*-phrase; for T, the surface subject; for v, the phrase raised by Object Shift. This property, which allows Spec position common to T, C and v is called by Chomsky the Extended Projection Principle (EPP). Chomsky suggests that the EPP-feature of T might be universal, while it varies among languages for v and C, and can be optional. EPP requires that SPEC-T be occupied by some element in English.

In the Minimalist Program the Projection Principle (PP) falls under selection properties, and the Extended Projection Principle is construed as a feature. By the Projection Principle, the subject may or may not be a theta-position, as it may be filled either by an expletive or an argument. An actual or potential theta-position is to be considered an A-position; others are A'-positions. The notion 'A-position' depends upon 'potential theta-marking': an A-position is one that is theta-marked in the equivalent position of some member of the equivalence class. Thus, complement and subject are A-positions, and [Spec, CP] and adjunct positions are A'-positions. A chain headed by an element in an A/A'-position is an A/A'-chain, accordingly (Chomsky, 1995).

In (6) the expletive element will be eliminated at LF, because every element of the LF representation of an expression must be interpreted at the interface. This allows no place for true expletives in LF representations. However, the EPP demands that a clause have a subject at every syntactic level; therefore the expletive cannot be simply deleted, because it would violate this requirement at LF. Furthermore, the expletive seems to appear with ϕ - features that enter into agreement with the inflected verb: [3d person, singular] in (6 a) and [3d person, plural] in (6 b).

(6)a. There is a man in the room.

b. There are men in the room.

Chomsky, 1995

Thus, *there* must be eliminated; yet it cannot be deleted as an element with ϕ - features. The only possible way to resolve this apparent paradox is a movement operation, with the *associate* of the expletive (*a man* in (6 a) and *men* in (6 b)) moving to the position of the expletive. It is assumed that this operation produces a new element (*amalgamated expletive*) combining the relevant features of the expletive and its associate: [*there, a man*] in (6 a), [*there, men*] in (6 b). The LF movement forming this new element is A-movement, since the expletive occupies an A-position in the Spec of IP where the relation between the associate and its trace meets the narrow conditions on A-movement.

Expletives are not theta-marked but appear only in positions to which Case can be assigned. Thus, (7 a) with the Nominative *there* and (7 b) with the Accusative *there* are grammatical, but (7 c) is not. At LF *t* is the trace of *a man* and the external argument (EA) is the amalgamated expletive in (8).

(7)a. I believe [there is a man here]

b. I believe [there to be a man here]

c. *I tried [there to be a man here]

Chomsky, 1995

(8)a. I believe [[EA *there, a man*] is *t* here]

b. I believe [[EA *there, a man*] to be *t* here]

c. *I tried [[EA *there, a man*] to be *t* here]

Chomsky, 1995

Furthermore, a subject position [Spec, IP] (a non-theta-position) can be occupied either by an argument (raised from a theta-position) or an expletive (overt (*there, it*)). When it is vacuous, it behaves as a target for movement. In a language that permits null subjects, the expletive can be *pro*. LF movement will replace *pro* by its associate. English lacks *pro* and has only a vacuous expletive that satisfies the EPP.

The English expletive *there* has three salient properties, according to Chomsky (1995):

1. an NP (associate) has a certain formal relation to *there*, which is licensed by it in the construction;
2. number agreement is not with *there* but with the associate; after overt raising, there is an alternate form with the associate in the subject position.

Thus, (9) is acceptable, but not (10), where there is no associate to support *there*:

(9)a. there is *a man* in the room

b. there are *men* in the room

c. *a man* is in the room

(10)a. *there was decided to travel by plane

b. *there is unlikely that anyone will agree

Chomsky explains these properties on the assumption that the expletive is an LF affix, with its associate adjoining to it. Since *there* lacks inherent ϕ -features (number, category), these features will 'percolate' from its associate. Following Chomsky (1995), an expletive has only a categorial feature D. The expletive takes a non-specific complement-associate NP. Thus, sentence (11) is rendered ungrammatical, as a definite NP *Mary* cannot appear

alongside an expletive *there*. The presence of definiteness restriction (DR) effects can be taken as an argument for the presence of *pro* (*expl*) (covert expletive) in the Spec of IP in languages that lack overt expletives such as *there*.

(11) *There is Mary in the room.

In his attempt to account for the ungrammaticality of (13) as compared to (12), Chomsky (1998) employs operations Move, Merge and Agree as a part of a computational procedure for human language (CHL).

(12) There is likely to be a proof discovered.

Chomsky, 1998: 10 (i)

(13)*There is likely a proof to be discovered.

Chomsky, 1998: 12 (i)

According to Chomsky (1998), a set F of features (linguistic properties) and operations CHL that access F to generate expressions are made available by Universal Grammar (UG). Each particular language maps F to a particular set of expressions EXP. Language acquisition involves at least selection of the features $[F]$, construction of lexical items LEX, and refinement of CHL via parameter setting. In other words, a language L selects $[F]$ from the universal feature set F and LEX, assembling features from $[F]$. Then it selects a lexical array LA from LEX and maps LA to EXP. The following operations constitute this component of CHL:

- Merge, which takes two syntactic objects (α, β) and forms $K(\alpha, \beta)$ from them.
- Agree, which establishes a relation (agreement, Case-checking) between an interface level α and a feature F in its domain. Unlike Merge, this operation is language-specific.
- Move, a combination of Merge and Agree, which establishes agreement between α and f and merges $P(F)$ to ${}_{\alpha}P$, where $P(F)$ is a phrase determined by F , and ${}_{\alpha}P$ is a projection headed by α . $P(F)$ becomes SPEC- α . Merge and Agree are preferred to Move as a more complex operation. Chomsky refers to Move of P to Spec- ϕ as A-movement, where ϕ is an agreement feature; other cases are A'-movement.

Pure Merge applies to expletives in SPEC-T positions, and to arguments in theta positions. Preference of Merge over Move selects *there* in (12). Merge of an argument in SPEC-T violates a theta-theoretic condition under which arguments merge in theta positions. Thus, example (13) is ungrammatical. The choice of Move or Merge also depends on the availability of an expletive in the initial lexical array. In case *there* is not available, Move may apply yielding (14):

(14) I expected a proof to be discovered.

Chomsky, 1998: 12 (iii)

Movement can be directly feature-driven (raising to subject) or indirectly feature-driven (the non-final stages of cyclic movement). The two types of indirect feature-driven movement are as follows: A - movement when the attracting head has ϕ - features (Case-agreement system), or A' - movement when it has peripheral system features (force, topic, focus...).

In his more recent work, Chomsky (1999) defines a relation Agree holding between two elements, where one of them has interpretable inflectional features and the other uninterpretable ones. A syntactic object generated by L is the element that activates Agree, by virtue of its uninterpretable features: these constitute a probe that seeks a matching goal. Matching of probe-goal eliminates uninterpretable features under the following conditions:

(15) a. Probe and goal must both be active for Agree to apply,

b. The element α must have a complete set of ϕ -features to delete uninterpretable features of the paired matching element β .

Chomsky, 1999

In (16) and (17), in (a) cases the EPP feature of T is satisfied by merge of expletive and in (b) by raising of the direct object:

- (16) a. there are likely to be awarded several prizes
 b. several prizes are likely to be awarded

- (17) a. we expect there to be awarded several prizes
 b. we expect several prizes to be awarded

Chomsky, 1999

Chomsky argues that expletives must have the feature [person], since they raise to delete this feature in (16 a); and pure expletives of the *there*-type should have no other features. In the following parts of this thesis I will further support the idea that expletives must have the feature [person] as a minimal requirement; however, the Russian expletive has number and gender features as well.

Jonas and Bobaljik (1993) suggest that the expletive of transitive expletive constructions in languages such as Icelandic is found in [Spec, AgrSP]. However, Chomsky (1995) asserts that the expletive can only be in [Spec, TP]. Furthermore, it has been argued that in languages with VS(O) order there is no expletive due to the lack of DR effects (Alexiadou, Anagnostopoulou, 1998). According to this proposal, the EPP relates to checking of a nominal feature of AGR.

I will assume that in languages where DR effects are present but no expletive element can be found in a lexical array of the language, a Null Expletive (NE) occupies the position of [Spec, TP]. Furthermore, [Spec, TP] can be occupied by some categories other than the expletive or NP. To support this assumption, Russian data will be analyzed in the following parts of this Chapter.

5.3.2 Russian Data

Russian, which is often said to be a language with free word order, has constructions similar to English *There is a man in the room/ There are three men in the room*. A fixed word order is required in this type of construction. Russian lexicon contains no element similar to *there*. The initial position in a sentence is obligatorily occupied by a

prepositional phrase, *v komnate* (in the room) in (18 a) and *na kryše* (on the roof) in (19 a). Examples (18 b, c) and (19 b, c) show that neither the verb *est'* (be) nor the logical subject *čelovek/ tri čeloveka* (man/three men) in (18 c) and *bassejn/bassejny* (swimming pool/pools) in (19c) can occupy this position.

(18)a. *V komnate est' čelovek/ tri čeloveka.*
 in room is man/ three men
 'There is a man /there are three men in the room.'

b.**Est' čelovek/ tri čeloveka v komnate.*
 is man/ three men in room
 'There is a man /there are three men in the room.'

c.**Čelovek/ tri čeloveka est' v komnate.*
 man/ three men is in room
 'There is a man /there are three men in the room.'

(19)a. *Na kryše est' bassejn/ bassejny.*
 on roof is swimming pool/ swimming pools
 'There is a swimming pool/ there are swimming pools on the roof.'

b.**Est' bassejn/ bassejny na kryše.*
 is swimming pool/ swimming pools on roof
 'There is a swimming pool/ there are swimming pools on the roof.'

c.**Bassejn/ bassejny est' na kryše.*
 swimming pool/ swimming pools is on roof.
 'There is a swimming pool/ there are swimming pools on the roof.'

In Russian existential sentences, the verb *est'* is obligatory and invariable; it is not in agreement with logical subjects as can be seen in the above examples. A sentential subject appears in the Nominative Case, which is mostly the case with subjects in non-existential sentences.³ As a rule, PP (locative or possessive) is obligatorily moved to the beginning of the sentence ((20) vs. (21)).

- (20) (V sadu) est' ljudi, kotorye ne ljubjat klassičeskuju muzyku.
in garden is people who no love classical music
'There are people who don't like classical music (in the garden).'

- (21) *Est' ljudi, kotorye ne ljubjat klassičeskuju muzyku, v sadu.
is people who no love classical music in garden
'There are people who don't like classical music (in the garden).'

In addition, sentences (22) and (23) illustrate that in the absence of a locative PP, the verb *est'* obligatorily occupies the initial position in a sentence.

- (22) *Ljudi est', kotorye ne ljubjat klassičeskuju muzyku.
people is who no love classical music
'There are people who don't like classical music.'

- (23) Est' ljudi, kotorye ne ljubjat klassičeskuju muzyku.
is people who no love classical music
'There are people who don't like classical music.'

³ 'Mostly', because in some constructions, such as the impersonal *Mne xolodno* (I feel cold) etc., subjects take the Dative Case. See Chapter I for the discussion.

Possibly, the position [Spec, TP] in Russian can be occupied by an expletive *pro* (24). When it is vacuous, it becomes a target for overt movement of the locative PP *v sadu* (in garden) (25).

(24) *pro est' ljudi, kotorye ne ljubjat klassičeskiju muzyku.*
is people who no love classical music
'There are people who don't like classical music.'

(25) *V sadu est' ljudi, kotorye ne ljubjat klassičeskiju muzyku.*
in garden is/are people who no love classical music
'There are people who don't like classical music in the garden.'

Following Alexiadou and Anagnostopoulou (1998), checking of the EPP feature in the Spec of IP does not require a specific category or set of formal features. For example, in Icelandic the expletive alternates with fronting of adverbs, particles, participles, or infinitives.⁴

Let us assume that the EPP feature can be checked by more categories than proposed by Chomsky (1995). A requirement to move PP to the Spec of TP may account for locative fronting in Russian. Checking of the EPP feature provides a driving force for a PP movement in sentences (18 a), (19 a), (20), and (25). In (26) a possessive PP *u menja* (with me) is fronted for the same reason. Sentence (27) is acceptable only in a very narrow contextual setting; for example, when *est'* (is) is focused to express a doubt or hesitation.

(26) *U menja est' odin drug.*
with me is one friend.
'I have one friend.'

⁴ See Lavine (1997) on the EPP checking by the Accusative NPs in Russian.

(27)??Est' u menja odin drug kotoryj možet tebe pomoč.
 is with me one friend who can you help.
 'I (might) have one friend who can help you.'

To conclude, word order in Russian existential sentences is fixed; a PP obligatorily appears in the sentence-initial position. In the absence of PP, it is occupied by *pro* (*expl*) that renders its associate non-specific.

5.3.3 Definiteness Restriction effects

Definiteness Restriction effects are extensively discussed in Milsark 1977, Diesing 1992, Safir 1982, 1987, among many others. Examples (28) and (29) illustrate that DR effects are present in existential sentences in Russian. A definite set of people *te samye ljudi* (those particular people) renders example (28) ungrammatical, while example (29) provides information concerning the existence of a certain type/ kind of people without particularizing.

(28)*Est' te samye ljudi, o kotoryx my často govorum.
 is those particular people about whom we often talk.
 (lit.) 'There are those particular people who we often talk about.'

(29) Est' ljudi, o kotoryx my často govorum.
 is people about whom we often talk
 'There are people who we often talk about.'

Let us assume that the initial position in sentence (28) is occupied by some element *pro* (*expl*) which merges in Spec TP. Then *pro* has a 'specificity' feature that allows it to render its associate non-specific (e.g. *ljudi, o kotoryx my často govorum* in (29)). Thus, in the presence of DR effects, example (28) is ungrammatical.

In sentences such as (30) where a PP targets a vacuous subject position, DR effects are absent in Russian. On the other hand, if *pro* is present, then the movement of a PP *v sadu* (in garden) is blocked (31).

(30) V sadu est' te samye ljudi, kotorye ne ljubjat klassičeskiju muzyku.
 in garden is those people who no love classical music
 'Those (particular) people who don't like classical music are in the garden.'

(31) **pro* est' te samye ljudi, kotorye ne ljubjat klassičeskiju muzyku, v sadu.
 is those people who no love classical music in garden
 'Those (particular) people who don't like classical music are in the garden.'

Movement applies when the EPP feature cannot be satisfied in the absence of another element, namely *pro*. As could be expected, no DR effects are found where locative/possessive PPs move to the initial sentential position to satisfy the EPP feature (a locative PP *v sadu* in (32 a) and a possessive PP *u menja* in (32 b)).

(32) a. V sadu est' te samye ljudi, o kotoryx my často govorim.
 in garden is those particular people about whom we often talk
 'Those people who we often talk about are in the garden.'

b. U menja est' te samye knigi, o kotoryx my často govorim.
 near me is those particular books about which we often talk
 'I have those particular books we often talk about.'

In contrast, in English DR effects cannot be eliminated by moving a PP (33).

(33) *In the garden there are those particular people I told you about.

In English [Spec, TP] is occupied by an expletive *there* that merges in this position, thus, no PP movement is possible in principle, and DR effects are always present.

5.3.4 Hebrew Data

Here is another observation concerning DR effects in similar contexts in Hebrew. DR effects are present in the existential (34) where a definite set of books *hasfarim* renders the sentence ungrammatical. Restriction effects are not found in the presence of a locative PP *baheder* (in the room) in Hebrew (35).

(34) Yeš (*et ha-) sfarim še kol exad ohev.
is Def.- books that everybody love
lit. 'There are the books that everybody likes.'

(35) Yeš et ha-sfarim še kol exad ohev baxeder.
is Def. Def.-books that everybody love in-room
'There are those particular books that everybody likes in the room.'

Example (36) illustrates that the restriction is dropped in the presence of a possessive NP *li* (me-Dat). In contrast with Russian in similar examples, *li* (me-Dat.) is not required to move to the sentence-initial position. It may be fronted only in limited contexts; for instance, when it is focused ('it is ME who has the books' in (36 b)).

(36)a. Yeš li et ha-sfarim.
is me-Dat Def. Def-books
'I have the (these) books.'

b.???Li yeš et hasfarim.
me-Dat. is Def. Def-books
'I have the (these) books.'

In Russian possessive examples the PP *u menja* (with me) is obligatorily fronted. *Est'* (is) may be fronted to express doubt. The most commonly found structure is presented in (37 a).

(37)a. U menja est' eti knigi.
 with me is these books.
 'I have these books.'

b.???Est'u menja eti knigi.
 is with me these books.
 'I have these books.'

Hebrew sentences exhibit a preferred word order with the verb *yeš* (is) fronted (36 a). Possibly, the EPP requirement is satisfied by moving the verb *yeš* (is) to the beginning of the sentence. Also, several native speakers of Hebrew reported examples (38) with a fronted PP *baheder* (in the room) and (39) with a fronted PP *babait* (in the house) acceptable.

(38)? Baxeder yeš et ha-sfarim še kol exad ohev.
 in-room is Def. Def.- books that everybody love
 'There are the books that everybody likes in the room.'

(39)? Babait eš ha-tmuna ha-zot.
 in-house is Def.-picture this
 lit. 'There is this picture in the house.'

Similar to Russian, *pro* renders the associate NP (*širim*-songs in (40), *dvarim*-things in (41)) non-specific in the absence of a PP.

(40) *pro* yeš (*et ha-) širim še ani šaxaxti.
 is Def. Def-songs that I forgot
 lit. 'There are the songs that I forgot.'

(41) *pro* yeš (*et ha-) dvarim še kol exad ohev
 is Def. Def-things that everybody love
 lit. 'There are the things that everybody likes.'

To conclude, a subject [Spec, TP] position in Hebrew sentences can be occupied either by *pro* or by another element such as a PP or a verb, thus satisfying the EPP feature. This point requires further research.

5.3.5 Lack of Agreement between verb (Present Tense) and logical subject in Modern Russian

In English the expletive of existential sentences appears to have ϕ -features that enter into agreement with the inflected verb. Chomsky suggests that deletion of an element with ϕ -features is probably prevented by a strong form of recoverability of deletion. Alternatively, if *there* lacks ϕ -features, then the overt agreement in (42) and (43) is a reflex of agreement between the inflected verb and the amalgamated expletive at the LF level.

(42) There is a man in the room

(43) There are men in the room.

Chomsky, 1995

In Modern Russian, there is no agreement between logical subjects and the 3d person singular form *jest'* of the verb *byt'* (be) in the Present form. In examples (44) and (45), both singular and plural forms of logical subjects *čelovek* (man) and *bassein* (swimming pool) appear alongside the form *jest'* (is) of the verb *byt'* (be):

(44) V komnate est' čelovek /tri čeloveka.
 in room is man/ three men
 'There is a man/ there are three men in the room.'

(45) Na kryše est' bassejn/ bassejny.
 on roof is swimming pool/ swimming pools
 'There is a swimming pool/ there are swimming pools on the roof.'

The verb *jest'* (is) is a form that survived from what originally was the Present Tense paradigm of Old Russian *byti* (46). A verbal copula is still preserved in other Slavic languages (e.g. Polish, Bulgarian). In Russian it has been eliminated, and its syntactic function is performed by N-Pron (Soschen, 1999; also see Ch.II for details).

(46)

	singular	plural	dual
1st	jesm'	jesm''	jesvě
2nd	jesi	jeste	jesta
3d	jest'	sut'	jesta

Logical subjects in English are in agreement with the verb, which also holds for Old Russian, but no such agreement is found in Modern Russian sentences.⁵ However, Agreement holds between the verb and the subject in the Past and the Future forms.

(47)a. Ran'se byli ljudi, kotorye ne ljubili klassičeskiju mužyku.
 before were-3pl.Past people-pl. who no love-Past classical music
 'There were people who did not like classical music.'

⁵ Note that in English variations in agreement are found in some cases as well (*There is/ are a cup and a saucer on the table*).

- (47)b. Vsegda budut ljudi, kotorye ne ljubjat klassičeskuju muzyku.
 always will-be-3pl.Fut. people-pl. who no love classical music
 'There will always be people who don't like classical music.'

Possibly, in case *pro* (*expl*) lacks ϕ -features in Russian, then examples in (47) show agreement between the inflected verb and the amalgamated expletive.

5.3.6 Case requirements of Russian expletives

Safir (1982) and Chomsky (1986) argue that the position of *someone* in *there is someone here* is not a position where Case is licensed. According to Chomsky, the associate of *there* moves to the position of *there* in the LF component due to morphological requirements of the associate itself; thus, in constructions such as *there is someone here* the Case of the argument is not licensed without movement to subject position.

In view of the theory of existential constructions (Belletti, 1988, Lasnik, 1992), in which *be* and other unaccusatives license a Case, the LF movement of the associate cannot be motivated by Case requirements of the associate.

In Russian existential sentences (e.g. (48)) logical subjects are always found in the Nominative Case typical of subjects in non-existential sentences, such as (49). An adjective bears Case features of the noun it modifies.

- (48) Est' lenivye sudenty/ *lenivyx studentov/ *lenivym studentam.
 is lazy-Nom. students-Nom. lazy-Acc. students-Acc. lazy-Dat. students-Dat.
 'There are (exist) lazy students.'

- (49) Lenivye studenty mnogo spjat.
 lazy-Nom. students-Nom. a lot sleep
 'Lazy students sleep a lot.'

In existential sentences without locative/ possessive PPs the verb *est'* is obligatory (50 a). In the presence of such PPs, however, *est'* can be omitted (cf. (50 a) and (51 a)); it can also be replaced by V *naxodjatsja* (are/ are situated) (cf. (50 b) and (51 b)).⁶

(50)a. *(*Est'*) *lenivye studenty*.
 is *lazy-Nom. students-Nom.*
 'There are lazy students.'

b. * *Naxodjatsja lenivye studenty*.
 are/are situated *lazy-Nom. students-Nom.*
 'There are lazy students.'

(51)a. V *komnate (est')* *ljudi*.
 in room is *people-Nom.*
 'People are in the room.'

b. V *komnate (naxodjatsja) ljudi*.
 in room are/are located *people-Nom*
 'People are in the room.'

On the assumption that Russian *est'* (is) licenses Case, we have to account for the fact that in Russian existential sentences without *est'* (is) Nom. Case is preserved; indeed, it is the only possible Case:

(52) V *komnate ljudi/* **ljudej/* **ljudjam*.
 in room *people-Nom. people-Acc. people-Dat.*
 'People are in the room.'

⁶This is another observation in favor of the EPP: the EPP-feature is checked by a verb in (50), thus, there is no VP-deletion. In (51) the EPP feature is satisfied by a PP *v komnate*.

There are examples where *byt'* (be-inf.) assigns Instrumental Case; a verbal form is infinitival and the Case cannot be Nominative.

- (53)a. Ona *xočet* *byt'* *učitel'nicej/ *učitel'nica*.
she-Nom. want-3sg. be-Inf. teacher-Instr./ teacher-Nom.
'She wants to be a teacher.'

- b. Bud' *učitel'nicej/ *učitel'nica*.
be teacher-Instr./ teacher-Nom.
'Be a teacher.'

As can be seen, logical subjects of existential sentences are not always found in Nom. Case in Slavic languages. In Polish a verb *jest* (is), which corresponds to Russian *est'* (is), assigns Instrumental Case in a predicative construction in (54). In (55) the Instrumental is present as well; the sentence has a verbal form *jesteśmy* (are).

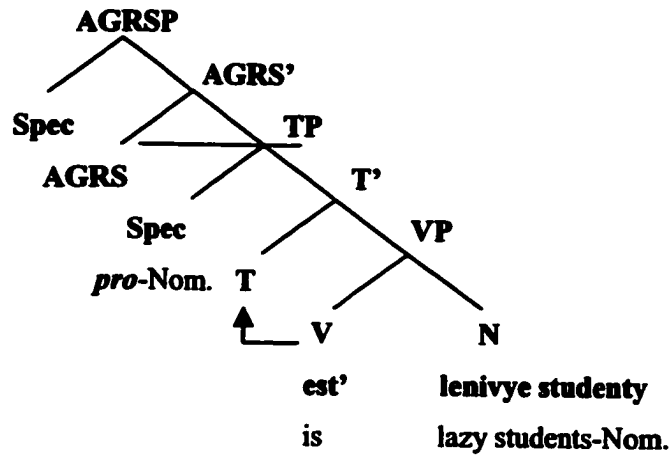
- (54) On *jest* Polakiem.
'He is a Pole.'

- (55) *Jesteśmy* bliźniaczkami.
'We are twins'.

Nominative Case could be assigned to a logical subject by association with an expletive *pro* in Russian existential sentences. Then both *pro* and the NP *lenivye studenty* (lazy students) in (56) are assigned Nominative Case in [Spec, TP]. It is also possible to assume that *est'* (is) assigns the Nominative to its object, in which case *pro* alone is assigned Case in [Spec, TP]. As was shown earlier, Agreement holds between a verb and a logical subject when the verb is found in the Past or in the Future, but not in the Present Tense.

- (56)a. Est' lenivye studenty.
 is lazy-Nom. students-Nom.
 'There are lazy students.'

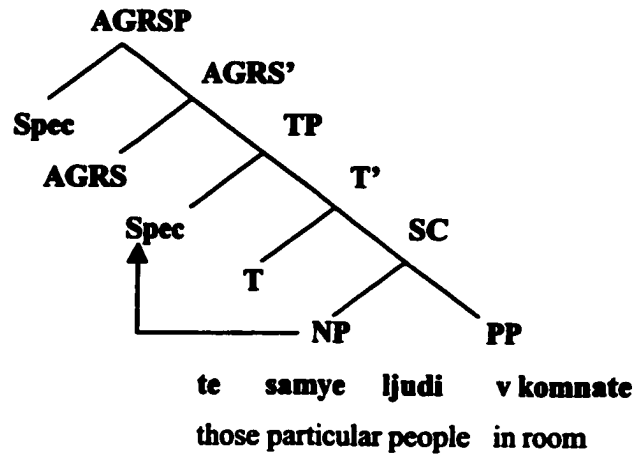
b.



Following Chomsky (1986), movement to subject position licenses the Case of the argument. The NP *te samye ljudi* (those particular people) in (57) is raised to be assigned Nominative Case in [Spec, TP] from SC [*te samye ljudi v komnate*] (those particular people in room); in addition, the NP checks the EPP feature and SF in [Spec, TP].

- (57)a. Te samye ljudi (*est') v komnate.
 those particular people-Nom. is in room
 'Those (particular) people are in the room.'

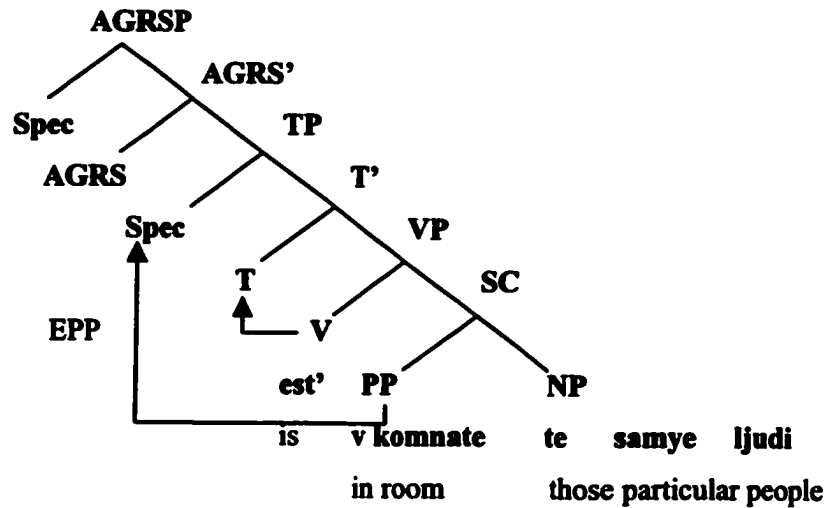
(57)b.



In contrast, in (58) a PP *v komnate* (in room) raises to satisfy the EPP feature.

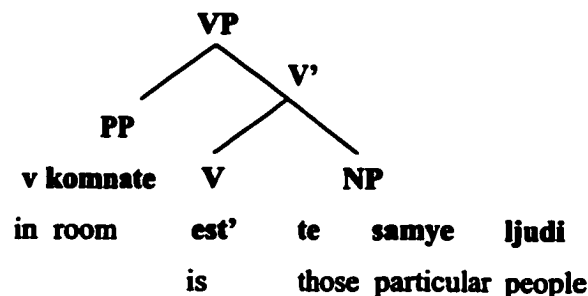
(58)a. V komnate (jest'/naxodjatsja) te samye ljudi.
in room is-sg.Pres./are situated- pl.Pres. those particular people-Nom
'Those (particular) people are in the room.'

b.



The question of Case-assignment by *est'* (is) in Russian existential sentences runs into problems, as it is not clear how a verb can assign Case across so much structure in (58). One way to solve the problem is to assume that V assigns Case to its object NP in (59 a). However, the NP *te samye ljudi* (those particular people) is marked with Nom. in the absence of *est'*(is)/ *naxodjatsja* (are located); also, the V *naxodjatsja* (are located), which carries the marker of intransitivity –SJA, does not take direct objects (59 b).

(59)a.



b. Te samye ljudi naxodjatsja (*nas) v komnate.
 those particular people-Nom. are situated-SJA-pl.Pres. us in room
 'Those (particular) people are in the room.'

Note that when a logical subject is specific, such as in (58), a verb *est'* (is) is optional, can be substituted by *naxodjatsja* (are/ are situated), which is impossible in sentences with non-specific subjects, in the absence of a prepositional phrase (sf. examples (50 a) and (51 a)). The meaning of existential constructions with non-specific subjects is different from (58), as the former has the meaning of *existence* and the latter of *location*.

5.4 A Specificity feature of T

In this section I will continue the analysis of T as associated with a Specificity feature (SF). It follows that once SF is matched by *pro* (*expl*) of existential sentences, other elements are blocked from checking it again. Thus, certain NPs generally referred to as

'definite' (in Milsark, 1977) are excluded from (60 b, d, f), as SF is checked by *there* in English.

- (60) a. There is a wolf at the door.
b. *There is the wolf at the door.
c. There were several people cycling along the creek
d. *There were John and Mary cycling along the creek
e. There was an article mentioned.
f. *There was Frank's article mentioned.

Milsark, 1977

In contrast, in Russian expletive *pro* can be dropped and replaced with a (locative) PP, which makes 'definite' NPs possible (61 a). Otherwise, the associate NP is non-specific, and a defining phrase such as (*te samye* - those particular) is excluded (61 b).

- (61)a. V komnate est' tot samyj volk, o kotorom my govorili.
in room is that particular wolf about whom we talk-Past
'The wolf we were talking about is in the room.'
- b. Est' (*te samye) volki, kotorye ljubjat malen'kix detej.
is those particular wolves that love little children
lit. 'There are those particular wolves who love little children.'

Furthermore, 'universals' render sentences ungrammatical both in English (62) and in Russian (63), both with and without locative PPs.

- (62) a. *There was everyone in the room.
b. *There were all viewpoints considered.
c. *There is anything John would do for you.
d. *There was each package inspected.

Milsark, 1977

(63)a. **(V komnate) est' každyj student našej gruppy.*
in room is every/each student our group
'Each student of our group is in the room.'

b. **(Na stole) est' vse konfety.*
on table is all sweets
'All sweets are on the table'.

Diesing (1992) explains that order to appear in the existential construction a NP should be existentially quantified over (existential vs. universal quantification over NPs).

In terms of a feature-checking mechanism, *there* in (62) and a PP in (63) check a Specificity feature in [Spec, TP]. The NPs quantified over by 'universals' such as *every*, *each*, *any* and *all* are blocked from checking a Specificity feature by their 'universal' rather than 'existential' nature.

Furthermore, only a non-universal reading of determinerless plural and mass NPs is found in *there*-constructions (64), while a universal reading is found in (65) and a non-universal reading in (66).

(64) a. There is coffee on the stove.
b. There were fireplugs outside the window.
c. There are unicorns in every wood.

(65) a. Coffee is tasty.
b. Fireplugs are red.
c. Unicorns like popcorn.

(66) a. We found coffee in the pot.
b. Fireplugs were lining the street waiting for employment.

(66)c. Unicorns came crashing out of the woods and surrounded us.

Milsark, 1977

In addition, a NP-associate of *there* can appear only with stage-level predicates in SCs ((67) vs. (68)). Predicates with individual-level status, however, can be 'relativized'.⁷ Examples in (69) have 'relativized' variants of SC predicates in (68).

(67)a. There are _{sc}[Ph.D. students available].

b. There are _{sc}[many professors ready to help].

(68)a. *There are _{sc}[Ph.D. students good].

b. *There are _{sc}[many professors nice].

(69)a. There are _{sc}[Ph.D. students too good to be true].

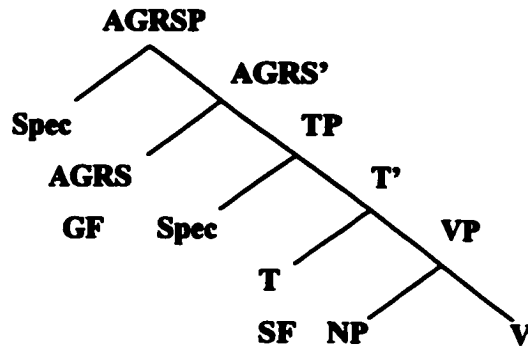
b. There are _{sc}[many professors nicer than this one].

Logical subjects of existential sentences being the associates of *there* have no Specificity feature to check; meanwhile, SF checking is possible by a SC predicate, when it is perceived as specific (a stage-level predicate).

It was argued earlier for Russian that certain predicates check a feature of Specificity. If this is also true for English, then the V *is/ are* selects for a specific (stage-level, or, as defined in this thesis, 'relativised') predicate of a Small Clause. T-position is associated with Specificity and preserved for Specificity feature-checking. In contrast, Agr carries an uninterpretable Genericity feature.

⁷For a detailed analysis of predicate levels and level-shift see Chapter II.

(70) GF of Agr and SF of T



When the position of *pro* of Russian existential sentences is empty, it can be occupied by a PP (71), and the meaning is that of *location*. In contrast, in English existential sentences *there* merges in [Spec, TP] position. As a result, no PP-raising is possible (72 a). For a sentence to have a meaning of *location*, NP is raised to [Spec, TP] (72 b).

(71) V sadu est' (naxodjatsja) ljudi/ est'(naxoditsja) Marija.
 in garden is (located-3d.pl.) people/ is (located-3d.sg.) Marija
 'People are / Mary is in the garden.'

(72)a.* In the garden are people/ is Mary.

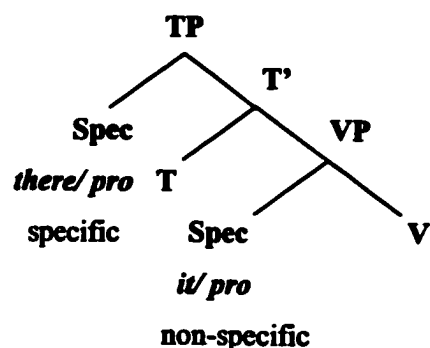
b. There are people/ there is Mary in the garden.

English has two pleonastic elements *there* and *it* that are not interchangeable, while only one of them can have an associate, which it renders non-specific. By assumption, *there* merges in [Spec, TP}, while *it* merges in [Spec, VP]. A 'specific' *pro* (*expl*) of Russian existential sentences found in [Spec, TP] corresponds to English *there*. Let us suggest that a non-specific *pro* of Russian impersonal sentences originates within a VP and corresponds to *it* in English impersonal sentences.

The conclusion drawn from the analysis of existential sentences in this Chapter and impersonal constructions in Chapter I is that that, both in English and in Russian, there are:

- (73) a. two *pro*-elements, one of which is associated with Specificity and another which is not;
 b. two positions for merging *pro* ([Spec, VP] and [Spec,TP]).

(74) Two positions for merging *pro*



(75) Positions of *there/* Russian *pro* (specific)

- a. There are many nice people.
 b. $TP[pro_{\text{specific}} \text{ est' mnogo priyatnyx ljudej}]$.
 'There are many nice people.'

(76) Positions of *it/* Russian *pro* (non-specific)

- a. It drizzles.
 b. $VP[pro_{\text{non-specific}} \text{ morosit}]$.
 'It drizzles.'

Postulation of two positions for *pro* allows us to account for the fact that there are no Definiteness Restriction effects and specific subjects are allowed in the presence of PPs in

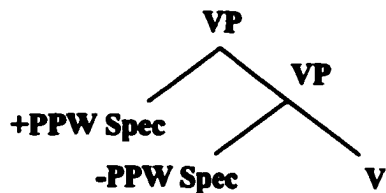
Russian existential sentences. When there is no specific *pro* (*specific*) that can render a logical subject NP non-specific, a Specifier position is occupied by a PP in Russian. By contrast, in English a Specifier position is obligatorily occupied by *there*. Non-specific pleonastics *it* in (76 a) and *pro* in (76 b) check the EPP feature in [Spec, TP] and their predicates check SF with T. Impersonal sentences with non-specific pleonastics are to be considered non-generic in the sense that they are associated with an existing event (e.g. of drizzling).

5.5 Sentential subject positions and VP-subjects

In parallel to what is found on the sentence level, the basic argument structure of a group of Russian transitive verbs is represented as having two subject positions (i.e. that of a direct and an indirect agent). This approach is in agreement with Chomsky's (1995) idea concerning a double subject position. Chomsky argues that when there are two subject positions within VP, the highest is occupied by an empty *pro*.

The conclusion concerning the two positions for subjects is based on the analysis of Russian impersonal sentences (Chapter I). The indirect subject position may be occupied either by a null element *pro* or a Nominal NP in e.g. Adversity-impersonal vs. personal sentences, correspondingly. The direct subject position is occupied by an Instrumental NP. The roles of the indirect and the direct agent positions of Russian impersonal verbs were defined in this thesis as +PPW (a Possessor of Personal Willpower) vs. -PPW positions, correspondingly. The direct subject position is secured for -PPW agents of the events, and the indirect one for +PPW agents (77).

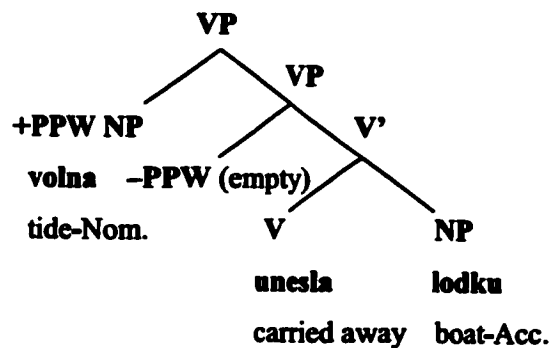
(77)



Adversity-personal sentences such as (78) are considered to be regular ‘agentive’ sentences with a +PPW agent *volna* (tide) in the Nominative Case. A -PPW agent is under-represented, on the assumption that +PPW agents can use themselves (or parts of themselves) as -PPW agents.

- (78)a. *Volna unesla lodku.*
 tide-sg.fem.Nom. carry-away-sg.fem.Past boat-Acc.
 ‘The tide carried away the boat.’

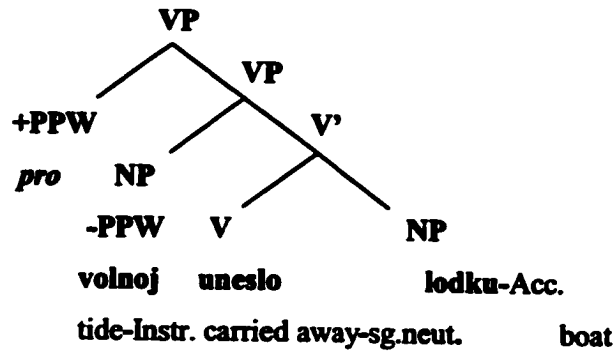
b.



In impersonal sentences a +PPW position is occupied by a semantically empty element *pro* with phi-features (sg., neut.) in (79).

- (79)a. *pro lodku uneslo volnoj.*
 boat-Acc. carry-away-sg.neut.Past tide-Instr.
 ‘The boat was carried away by the tide.’

(79)b.



I will follow Marantz (1984) in holding that sentential representations observe the subcategorization properties of lexical items. In addition to representation of complements of heads, it appears that Russian verbs also subcategorize for the causer subjects. The definition of subject in this context includes the causers of (sub-)events, the Nominative and the Instrumental subjects.

The following two groups of Russian verbs can be identified according to their subject-selection properties.

(80) 1. Verbs that subcategorize both for +PPW and –PPW subjects, such as ‘adversity’ verbs *razbit’* (break), *unesti* (carry away) etc. +PPW subject can be represented by either a NP (78) or a *pro* (79).

2. Verbs that subcategorize for +PPW subjects only, such as *pro* of a transitive V *znobit’* (feel-feverish) in the impersonal *Menja znobit* (I-Acc. feel-feverish) (81). +PPW subject (expressed by *pro*) can also be selected for by intransitive verbs such as *morosit’* (drizzle) in *Morosit* (It drizzles) etc. (82).⁸

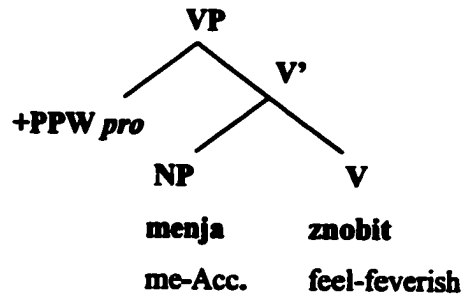
(81)a. *Menja znobit.*

pro I-Acc. have-fever-sg.neut.

‘I have a fever.’

⁸ See Chapter I for the analysis of impersonal sentences with accusative and dative ‘subjects’.

(81)b.

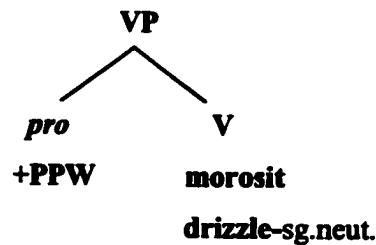


(82)a. *pro* morosit.

drizzle-sg.neut.

'It drizzles.'

b.



At this stage in the analysis, a +PPW feature, or a property of external subjects, has a meaning of either affecting another entity to cause the event (80-1) or causing the event directly with no other means involved (80-2). Thus, Accusative 'subjects' are viewed as the causees of an event, or subjects of the 'resulting' clause (81). Dative 'subjects', on the other hand, are individuals experiencing a certain state, that are neither the causers nor the causees of the event.

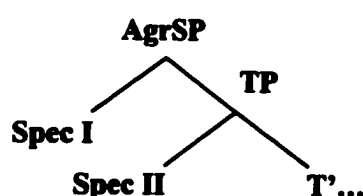
The role of *pro* of impersonal sentences is made clear in the view of the predication theory developed in this thesis, which states that a predicate has inherent requirements for saturation (in other words, 'being a predicate' is a function of belonging). For example, a predicate *read* requires saturation by the element to be included in the set of 'readers'. A

semantically empty element, such as *pro* can be regarded as an input of a zero element. For example, in *Xolodno* (cold-neut.sg.), which is an impersonal sentence in Russian, predication relation holds between a predicate and its zero argument. The zero argument is in fact an exclusion function by itself, as it does not permit any other than *pro* element entering the set. In contrast, *xolodnyj* (cold-masc.sg.) will require an argument other than *pro*, such as e.g. *den'* (day), *čaj* (tea) etc. in *Den' / čaj xolodnyj* (The day/ tea is cold).

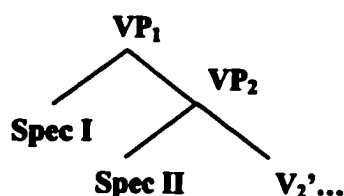
This also holds for sentences *V lesu xorošo dyšitsja* (lit. It breathes with ease in the woods) in that a predication function operates on a zero argument. The meaning in this case is that of a state of the air in the woods, without any reference to either a specific event of breathing or a specific participant of the event. The experiencer set expressed by the Dative subject, which is limited to humans and human-like: *Mne/ marsianam xorošo dyšytsha* (lit. It breathes to me/ to Martians with ease) vs. **Sobake xorošo dyšytsha* (lit. It breathes to a dog with ease).⁹

If we accept the idea concerning two subject positions of Russian verbs, then a parallel can be drawn between the following structures containing two subject positions where (83) is a sentential and (84) lexical structure.

(83)



(84)



⁹ I am grateful to M.-L. Rivero and O. Arnaudova for their comments concerning this point.

The sentential (macro-) structure in (83) is thus regarded as a projection of a lexical (micro-) structure in (84). Spec I and Spec II positions of S-structure are occupied by the subjects of generic and non-generic subjects, accordingly. In (84), the positions are associated with +PPW (Spec I) and –PPW (Spec II).

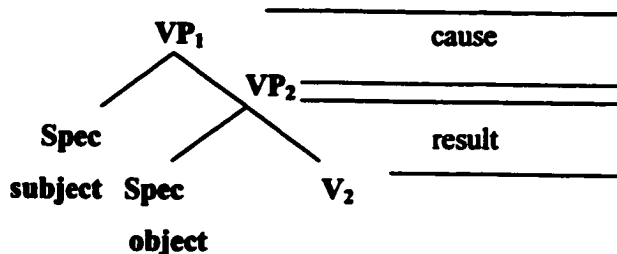
Further research is required to establish semantic and other relations between these structures. At this point it can be assumed that Spec I position is an expression of a more general and encompassing category than Spec II.

5.6 Resultative structures and predication

In this thesis Russian verbs were analyzed as belonging to two subcategories: the resultative and the non-resultative verbs. I concentrated on the first category comprised of the verbs that have a resultative character (transitive verbs).

The objects of the verbs of this (transitive) category are in fact the subjects of the 'resulting' clause. Intransitive variants of the verbs are the 'result' part of the projection (85). The manner in which semantic configurations are projected into syntax is an explanation for the formation of 'unaccusatives' in sentences such as *The glass broke* and the middles such as *The glass breaks easily*.

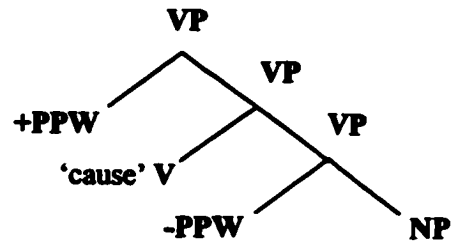
(85)



The 'causing' projection is comprised of two parts: one with +PPW agent as an active indirect causer of the event, and another with -PPW agent as a direct causer of the event (86 a). It is possible that the 'cause' element is not always realized (cf. (86 a) and (86 c)). This point requires further research.

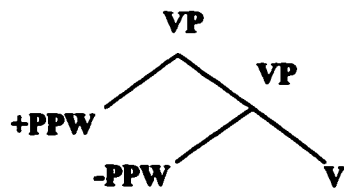
(86)a. John broke a cup.

b.



c. John loves Mary.

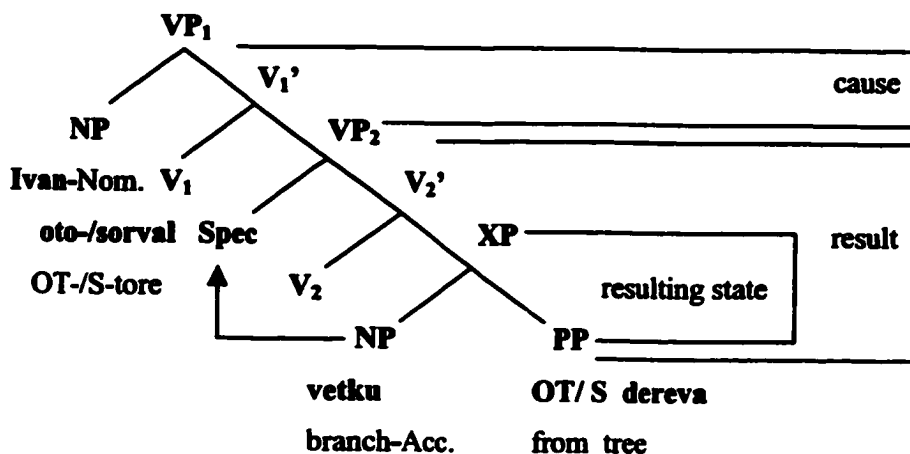
d.



The 'result' projection of transitive verbs discussed here can be represented as having two parts, one of which is the 'resulting state' part. The 'resulting' part of the augmented structure of transitive verbs can be realized as an NP plus a locative PP, *vetku ot/ s dereva* (branch away from/ from tree):

(87) a. Ivan otorval/sorval vetku ot/ s dereva.
 Ivan-Nom. OTO-/SO-tear-masc.Past branch-Acc. away from/from tree
 'Ivan tore the branch off the tree.'

(87)b.



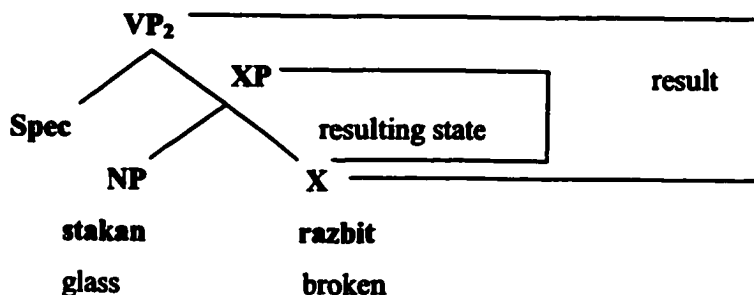
The 'resulting state' part included in the 'result' part appears in passive constructions.

(88)a. Stakan razbit.

glass broken

'The glass is broken.'

b.



In addition, certain intransitive verbs have a lexical template that can be augmented; then the resulting verbs may appear in the resultative structure. Such as the case with e.g. *smejat' sja* (laugh) and *vysmejat' so sceny* (laugh off the stage).

The analysis of certain Russian transitive verbs leads one to the conclusion that lexical structures of these verbs can be regarded from the point of view of their comprising

cause-result projections and the participants of the cause-result events, as opposed to the theta-role analysis. +PPW subject of the causing clause and -PPW subject of the resulting clauses are to be considered the true arguments of the verb. Prominence of arguments corresponds to the ordering of (sub-) events; thus, +PPW argument takes precedence over other arguments. A separate mechanism has to be worked out to provide explanation for the presence of additional (optional) arguments, such as e.g. Dative experiencers of Russian impersonal sentences.

5.7 Types of predicates and Minimalism

The discussion of the ways a relation is established between a subject and a predicate, and an object and a predicate, is closely related to the analysis of the resultative structure components. Chapter III defines predication as a succession of logical operations, or as a set of ordered functions. Predication relation in its direct application that does not require additional functional categories.

Stage- and individual-level predicates are discussed at length in Chapter II. Rather than applying a rigid classification of predicates into two groups, each type of predicate is now represented according to its potential for 'relativization', which can attribute a stable (or non-specific) property to a particular event, unless inherently relativized.¹⁰

Long forms of Russian adjectives can appear both in generic contexts as 'non-specific' and in non-generic contexts as 'specific' predicates, while short forms are inherently relativized and cannot appear in generic contexts.

Generic contexts are defined on the individual level as the contexts where a property finds its realization in all possible situations, in contrast with non-generic contexts, where the property is realized only in some situations.

¹⁰ The example of 'non-relativized' and 'relativized' predicates, accordingly: *Ona krasivaja*-long form (She is beautiful in general) vs. *Ona krasiva* (-short form) / *krasivaja* (-long form) *segodnja* (She is beautiful today).

Russian sentences differ in meaning depending on the absence or presence of N-Pron when the full form of an adjective is used. N-Pron attributes a generic meaning to a sentence. Russian N-Pron corresponds to Hebrew Pron. 'Relativized' predicates are excluded from generic contexts ((89 b), (90 b)).

(89)a. Dani - krasivj. (generic context) Russian

Dani N-Pron handsome

'Dani is handsome.'

b. Dani (*-) gotov idti s nami. (non-generic context)

Dani N-Pron ready go with us

'Dani is ready to go with us.'

(90)a. Dani hu yafe. (generic context) Hebrew

Dani Pron handsome.

'Dani is handsome.'

b. Dani (*hu) muxan lalexet itanu. (non-generic context)

Dani Pron ready go with-us

'Dani is ready to go with us.'

Furthermore, only 'generic', or 'conceptual', properties that appear with copular *SER* can be 'relativized' in Spanish and appear with *ESTAR* (91), but not in the opposite direction (92).

(91) ser gordo → estar gordo to be fat
 ser elegante → estar elegante to be elegant
 ser normal → estar normal to be normal

(92) estar gordo +> ser gordo to be fat

estar elegante +> ser elegante to be elegant

estar normal +> ser normal to be normal

Once a property is established as that of a temporary kind, it cannot be referred to as a permanent one (92). Copular verbs in Spanish are sensitive to the type of predicate they subcategorize for.

The predicate type corresponds to the context in which it appears in the following way:

(93)	context	predicate
	- generic	→ + relativized (specific)
	+ generic	→ -relativized (non-specific)

The Minimalist approach to the types of predicates as carrying mutually exclusive Specificity (SF) vs. Genericity (GF) feature will assist in solving the problem concerning classification of predicates as individual- and stage-levels. Temporary predicates are regarded as associated with specificity that establishes a link between a property and a temporal location. The way SF is checked in syntax is a subject for a future investigation

5.8 Summary

In this Chapter I have reviewed the theory of Agreement in its application to Russian and Hebrew data. The idea was to provide the ground to maintain Agr as a functional head. In Chapter II, I referred to Pron in Hebrew and N-Pron in Russian as the markers of Agr. The feature constitution of Agr now includes a generic element (Genericity feature). Pron and N-Pron appear in generic sentences only. Being generic means that the quality expressed by the predicate will be realized in all situations possible for the subject.

Next, I have argued for the existence of *pro* (*expl*) in the Spec of TP in Russian and Hebrew existential sentences, and its specific nature (Specificity feature). The Definiteness Restriction effects were viewed as an argument for the existence of *pro*

(*expl*) in [Spec, TP], which renders its associate NP non-specific. In contrast, DR effects are not found in sentences with locative/ possessive PPs. Therefore, [Spec, TP] position, if vacuous, causes locative/ possessive PPs to move. The EPP feature can be checked by more categories than proposed in Chomsky (1995) (NP, expletive). The EPP requirement to move elements to the Spec of TP accounts not only for the locative/ possessive fronting in 'existential' sentences, but also for the movement of Dative and Accusative 'subjects' in Russian impersonal sentences.

In English, Russian, and Hebrew pleonastics occur in a subject position to satisfy the EPP-feature. The data presented in this Chapter confirms that non-specific syntactic elements, such as 'universals', are excluded from the constructions that require SF checking.

In Russian existential sentences, logical subjects are always marked by Nominative Case typical for regular subjects. The Nominative is preserved also in sentences with locative PPs without the verb *est'* (be). I assume that Case requirements of logical subjects can be satisfied either in [Spec, TP] or through agreement with *pro* that is assigned Nominative Case in [Spec, TP].

Arguments of lexical structures were treated according to their precedence in appearing as participants (causers vs. causees) of ordered sub-events, hence additional theta-role labeling was dismissed as subjective. The arguments are now regarded according to their ability to cause an event and to undergo a change caused by that event. Thus, the distinction between true arguments and other (optional) arguments was made clear. The ordering of sub-clauses refers to establishing predication relations in a bottom-up manner. Individual and stage-level predicate characteristics are now linked to Genericity Feature (GF) of Agr and Specificity Feature (SF) of Tense, respectively.

To support the idea concerning two positions of subjects (Chomsky, 1995) and to account for the observed lexical and syntactic similarities, I offered to regard the sentential structure as a projection of the underlying lexical representation, leaving a detailed analysis for future research.

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