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On the Grammatical Function of Verbal Prefixes in Russian*

Abstract:

The peculiarity of Russian verbal prefixes is traced back to the fact that, when inflectional categories operate on top of classificational categories, different lexical categories are integrated into a single grammatical category. This brings it about that by themselves privative oppositions are used for purposes other than originally intended; they serve as equipollent (non-privative) oppositions, forming an inflectional paradigm.

The main result of this investigation then is that the "perfectivizing prefixes" and the "imperfectivizing suffixes" are, in fact, no morphological exponents of the aspectual values 'perfective' or 'imperfective', respectively. The most we can say for the "suffixes" (e.g. *-ыва-, -ева-*) is that they signal that the verb belongs to conjugation class -аю/-яю, and that this construction is associated with imperfectivity. As to the prefixes, they fulfil a pure word formation function: they impose a 2-state-content on the meaning of the verb they attach to. This is relevant for the Russian aspectual system because verbal lexemes with a 2-state-content receive the aspectual value 'perfective' by default.

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0. Introduction

0.1. The topic of investigation

«П р е ф и к с ы (от лат. praefixus - приклепленный впереди) - это служебные морфемы, которые находятся перед корнем и выражают словообразовательное и (или) грамматическое значение. Они могут быть непосредственно перед корнем или перед другим (другими) префиксом (префиксами), но присоединяются не к основе, как суффиксы, а к слову. Таким образом, они образуют слова на базе не основ, а слов. [...] В системе глагола широко распространено использование префиксов в слово- и формообразующей функции. В этом случае они одновременно выражают и словообразовательное и грамматическое значение, выступают как синкретические морфемы. Например, в глаголах *перерешить, пересеять, переделить* приставка ***пере-*** обозначает действие, которое выполняется заново и иначе. Это словообразовательное значение. Одновременно приставка ***пере-*** в этих глаголах выражает грамматическое значение совершенного вида. Ср.: *шить* (несов.) - ***пере-шить*** (сов.), *сеять* (несов.) - ***пере-сеять*** (сов.), *делить* (несов.) - ***пере-делить*** (сов.).» (Тихонов 1996:667-668).

This quote contains a puzzle. If prefixes are used to derive one word (lexeme) from another one, how can they have a grammatical (inflectional) meaning besides their lexical (derivational) meaning? After all, the meaning which results from a word formation process always stands in privative opposition to the meaning of the initial form. The meanings of different inflectional forms, on the other hand, are non-privative (cf. Плунгян 1988:19).

The aim of this paper is to solve this puzzle. I attempt to illuminate the function that prefixes play in the verbal grammar of Russian. We look for an explanation of why, at least at first sight, verbal prefixes at the same time express derivational and grammatical (aspectual) meanings.

The paper accordingly belongs to the theoretical discipline called „prefixology" (префиксология) of which Krongauz says that it represents partly aspectology and partly word formation theory (cf. Кронгауз 1997). In this paper, I will focus on aspectological questions. I will highlight the range of grammatical processes which constitute the

category of aspectuality in Russian, hoping to find the key to understanding the puzzle from above. In other words, the present paper represents the strategy «к приставке через вид» (Кронгауз 1997:81).

0.2. The system of Russian prefixes

Which linguistic expressions can be called prefixes? Here I follow Krongauz (Кронгауз 1993, 1995, 1998). Krongauz assumes that Russian prefixes form a system, more precisely three systems:

«Более конкретно можно говорить о трех проявлениях системности в семантике приставочного словообразования в русском языке [...]. Речь идет об описании трех типов взаимодействия значений: в рамках одной приставки, в рамках всего приставочного словообразования и, наконец, о взаимодействии значения глагольной основы со значениями различных приставок.» (Кронгауз 1995:37).

To participate in these systems, an expression must at the same time fulfil five conditions (cf. Кронгауз 1998:101-105):

condition 1: prefixes must be capable of forming verbs.
condition 2: prefixes must combine with verbs.
condition 3: prefixes must perfectivize.
condition 4: prefixes must be productive.
condition 5: prefixes must be atomic (=non-complex).

Due to condition 5, elements like, for instance, *произ-* in *произойти* are excluded from the system. Elements like *про-* or *из-* participate in the system, however. Condition 4 excludes elements of Old Church Slavonic origin, which are not productive today, like *воз-*, *пре-*, *пред-*, *со-* (as in *сочувствовать*) or *низ-* (as in *низвести*) (see also Исаченко 1960:149). Condition 1 rules out elements like *без-* in *бездействоавть* because they are better analyzed as nominal prefixes: [*действие*]ₙ >[*без-действие*] ₙ > [*бездейст-вовать*] ᵥ. Due to condition 2, *обез-* in *обезврѐдить* is likewise barred from the system: Isačenko shows that *обезврѐдить* must be analyzed synchronically as *о-безврѐд-ить*, in

analogy to, for instance, *о-черн-ить* (there is no Russian verb *врéдить*, although there is *вредúть*), cf. Исаченко 1960:150-151, but see Тихонов 1996:316 for a different stand. From that there is no such verb like *безврéдить*, we see that *о-* need not necessarily combine with verbs. Last but not least, condition 3 determines that a prefix such as *сверх-* is located outside of the system of verbal prefixes because, for instance, *сверхпроводить* is imperfective. The same holds for all other non-perfectivizing prefixes like *противо-*, *со-* or, stemming from Latin, *де-*, *дис-*, *ре-* (cf. Кронгауз 1998:103).

Traditionally, the system of Russian verbal prefixes is said to contain 18 prefixes (cf. Isačenko 1968, Виноградов et al. 1952, Исаченко 1960). Dividing *о- (об-, обо-)* into two elements *о- (об-, обо-)* and *об- (обо-, о-),* Krongauz counts 19 (cf. Кронгауз 1998:131-148). For the Russkaja Grammatika (1980) *о-* and *об-* likewise represent two prefixes; the authors list 24 elements, of which 16 participate in the formation of aspectual pairs. Among those 24 are *воз-, недо-, низ-, пре-, пред-* and one element *со$_2$-*. What is missing is *пере-* (cf. Шведова et al. 1980:586). Following Krongauz, I will assume that in Russian word formation, there are 19 elements that take part in the regular system of verbal prefixation (cf. Кронгауз 1998:99)[1]. Here they are:

в- (во-), вз- (вс-, взо-), вы-, до-, за-, из- (ис-, изо-), на-, над- (надо-),
о- (об-, обо-), об- (обо-, о-), от- (ото-), пере-, по-, под- (подо-), при-,
про-, раз- (рас-, разо-), с- (со-), у-.

0.3. The grammatical category of aspect

Experts disagree as to the grammatical status of the category of aspect. When asked by Čertkova et al. whether aspect is an inflectional or a derivational category, the participants of the Aspectological Seminar 1994-1995 at MGU gave diverse answers (cf. Черткова et al. 1997:132-133): for nine scholars, aspect is a classificational category, one states that it is "likely to be a classificational category". Six think that aspect is an inflectional category. Two others believe that aspect is closely related to the category of number. Ten researchers locate aspect at the borderline between inflection and derivation. One takes aspect to be a phenomenon in its own rights. Two reply that the question is not correctly

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[1] In what follows, I will use the term „prefix" to refer to one of these 19 elements. If necessary, I will speak of „system prefixes".

asked, one is not satisfied with the two alternatives, and one even considers aspect to have no grammatical status at all.

The present paper subscribes to the interpretation of aspect as a classificational category, as advocated for example by Padučeva (1996). Accordingly, the aspectual system is closely related to the system of nominal classification (gender). Let me briefly sketch my basic assumptions:

On a very high level of theoretical abstraction, gender and aspect build on the same grammatical principles. Both are based on a grammatically relevant partition of the (nominal or verbal, respectively) lexicon. That is to say, both rest on the formation of grammatically relevant lexical categories (lexeme paradigms). The difference between the two phenomena can be traced back to the difference between nouns and verbs. Thus, gender is stem classification in the realm of nouns, and aspect is stem classification in the realm of verbs. This is the classificational dimension of aspect. On top of this, Russian developed morphological means to shift verbal lexemes from the one lexical class in which they are primarily stored to another lexical class. The resulting oppositions are no longer oppositions of lexemes, but of word forms. This is the inflectional dimension of aspect.

1. Three types of paradigms

1.1. When conceptual space turns into grammatical space

> *Мальчик, спавший в одной комнате со мною, тихо говорил*
> *сам себе, уверенный, что я его не слышу:*
> *Мы сплям? Не.... Мы сплим? Не.... Мы сплюм? Не....*
> (Корней Чуковский 1999:308)

Grammatical categories divide the conceptual space that they refer to into different zones, with different morphological constructions being in charge of each zone. This brings it about that grammatical categories can be represented as paradigms.

«Совокупность всех грамматических значений, представленных у некоторой лексемы или дополнительно приписанных ей, с указанием для каждого из них, какая словоформа (или словоформы) этой лексемы имеет данное грамматическое значение, называется парадигмой данной лексемы.» (Зализняк 1967:30).

"A paradigm [...] is the partitioning of grammatical space by a set of related forms." (McCreight & Chvany 1991:94).

Two features of paradigms are particularly important as far as the representation of grammatical categories is concerned. First, paradigms are often defective which means that certain "boxes" are not associated with any formal exponent. Such gaps in the paradigm may be systematic or arbitrary. Non-arbitrary gaps result from the incompatibility of the semantic features associated with the specific paradigm zone and the semantic features of the lexeme entering the paradigm (cf. Чвани 1993:232-233). Secondly, paradigms often show syncretisms, which means that the signantia of different constructions within a paradigm coincide. Even though syncretisms may result from chance (Jakobson 1958/1984), it is none the less syncretisms that tell the linguist about the regularities behind the seemingly chaotic structure of a paradigm:

"A potent theoretical, or perhaps rather metatheoretical, motive is that if everything in the realm of language - as well as in the animal, vegetable, and mineral kingdoms - is reducible to some natural order (except perhaps the exceptions), it would be odd if in inflectional paradigms, the backbone of of grammar, order had to be admitted to be arbitrary." (Plank 1991:162).

This notion of paradigms as (psychologically) real entities departs from the structuralist view according to which paradigms are not discovered, but constructed by scientists for the sake of theorizing:

«парадигма в терминах пространства представляет или «моделирует» гипотезу о естественном явлении, в данном случае о словохранилище в мозгу носителя языка» (Чвани 1993:242).

According to Plank, the architecture of a paradigm should be (re)constructed in accordance with the following three criteria: First, homonymous morphemes should be represented in neighboring boxes. Second, the grammemes (Plank: "terms") of a grammatical category should be linearly ordered, if possible. Third, the order of grammemes of a category should be stable across different lexemes (Plank 1991:166). Often, different architectures can be determined for different classes of lexemes within one and the same grammatical category. In this case, the language at hand possesses "declensions":

"Different declensions correspond to different paradigms; i.e., to different ways of partitioning the grammatical space" (Chvany & McCreight 1992/1996:223).

According to Lehmann (Lehmann 1999a, 1999b), Russian possesses three types of grammatical categories: inflectional, classificational, and derivational categories. All of them form paradigms. Due to their different grammatical functions, however, inflectional paradigms, classificational paradigms and derivational paradigms have different properties.

1.1.1. The opposition of word forms: inflectional paradigms

(In inflecting languages,) every lexeme corresponds to a set of word forms differing from each other with respect to their grammatical value. Such a set of word forms can be represented as a paradigm. The nominal paradigm in German and Russian, for instance, is made up of two elements, a singular and a plural form.

«Категорией (субстантивного) числа называется категория, элементы которой указывают количество соответствующих объектов. [...] 'единственное число'[один объект] ~'множественное число' [более одного объекта]» (Мельчук 1998:89).

Abstractly speaking, a grammatical category is inflectional if the lexical stem takes on different morphological shapes to signify different conceptual-semantic zones (grammems) provided by the grammatical category:

Conceptual Space	
Grammem A	Grammem B
Stem + Marker a	Stem + Marker b

It is possible that, in one function, the stem shows up in its bare form (zero marker). On any event, two different wordforms contrast with each other. This can be illustrated by the Russian number category:

	Conceptual Space	
	Singular	Plural
N	дом-∅	дом-а
G	дом-а	дом-ов

	Conceptual Space	
	Singular	Plural
N	комнат-а	комнат-ы
G	комнат-ы	комнат-∅

Affixation is not the only way to build inflectional forms. In German, for example, the plural value may be expressed by means of Umlaut of the stem vowel, compare the two word forms for "daughter": [sg *die Tochter*] vs. [pl *die Töchter*].

«Означающим предлагается называть любой воспринимаемый (прямо или косвенно) носитель некоторого значения, точнее, то, что исследователь провозглашает носителем этого значения. Тогда означающими могут быть не только «линейные», «сегментные» отрезки - цепочки фонем, но и определенные суперсегментные (=просодические) явления, и разного рода операции» (Мельчук 1973:20).

Umlaut exemplifies the latter kind of operation. Bybee & Dahl coined the term "gram" to subsume segmental and suprasegmental strategies of forming grammatical words (cf. Bybee & Dahl 1989:51, see also Булыгина 1977:130-131).

1.1.2. The opposition of lexemes: paradigms of classificational categories

Word class oppositions serve a different grammatical purpose than inflectional oppositions. To inflect is to subdivide the semantic space given by a single lexeme according to semantic parameters (like, for instance, singular or plural) such that each word form has a more specific informational content than the initial lexical category. In contrast to that, lexical word classes are established on the basis of a comparison of the semantics of different lexemes; the variety of lexemes of a certain domain (e.g. all verbs) form lexical classes by virtue of their lexical content, without any impact from the side of the grammatical system. Padučeva calls such lexical classes " taxonomic" or "ontological" categories, cf. Paducheva (1998:353).

It is a characteristic feature of the lexicon that its elements stand in semantic relations toward each other (cf. Lyons 1977: "sense relations"). By themselves, ontological categories are non-grammatical, but they can gain grammatical relevance. The underlying reason for this is that grammtical structures inevitably resort to ontological categories. Ontological categories, so to speak, form the fundament on top of which the grammatical architecture is based (cf. Jackendoff 1990).

Lexical classes are established on the basis of two (or more) ontological categories which serve to demarkate the partitioning the lexicon; languages differ as to which ontological oppostitions they "decide" to make use of. Below I will illustrate this process with reference to the category of grammatical gender.

According to Lehmann, classificational catgories manifest themselves as oppositions of lexical stems (Lehmann 1999a:144). This implies that, side-by-side with their usual lexical-conceptual meaning, such lexical elements have a grammatical meaning. This grammatical significance must somehow be reflected in the lexical entry. Accordingly, we can think of a lexical entry as integrating two sorts of information. The fundamental first layer of the lexicon is made of those pieces of information that Zaliznjak calls

"nominative" (cf. Зализняк 1967:22-24). These information units stand in taxonomic sense-relations toward each other. The second layer of the lexicon is constituted by nominative units of the first layer furnished with "syntactic" (Zaliznjak) pieces of information:

«[Н]оминативное значение непосредственно отражает («называет») внеязыковую действительность (предметы, события, признаки, отношения и т.д.); синтаксическое значение отражает лишь способность словоформы вступать при построении фразы в определенные типы синтаксической связи с определенными классами словоформ.» (Зализняк 1967:24)

In other words, if we think of the lexicon as a conceptual space, then the first layer of the lexicon would be a purely semantic conceptual space, while the second layer would be a grammaticalized conceptual space. This two-layered architecture of the lexicon is built in the linguistic terms "root" and "stem". The former refers to the first layer, the latter refers to the second layer:

"To turn to *root*, although *root* and *stem* both designate sound forms of lexemes, the most important difference between them is that a root is defined with respect to a lexeme, while a stem is always defined with respect to a realization rule. One might say that *root* thus abstracts away from all morphology. The most important thing about roots, in the sense for which I wish to reserve the term, is that they be morphologically unanalyzable. A root is what is left when all morphological structure has been wrung out of a form." (Aronoff 1994:40).

I will accordingly speak of lexical stems whenever some lexical element (e.g. in word class formation) is enriched by grammatical information. In contrast to that, roots bear exclusively nominative/ontological information. There are countless (conceptual) meaning relations holding among roots (e.g. 'big' vs. 'small', 'animate' vs. 'inanimate', 'visible to the speaker' vs. 'invisible to the speaker', 'male' vs. 'female', 'poisonous' vs. 'eadible' etc.). The (grammatical) meaning relations among stems, by contrast, are limited; their range and organization is dependent on the language-specific grammar. A Russian

dictionary (e.g. Ожегов & Шведова 1993), for example, has to specify for any verb its aspectual value (perfective or imperfective), and for any noun its gender value (masculine, feminine or neuter):

«[Ч]тобы полностью охарактеризовать языковой знак [...] нужно обязательно указать по крайней мере **три** вещи: кроме означающего и означаемого требуется еще дать сведения о правилах синтагматического комбинирования данного знака с другими знаками. [...] Тогда мы можем сказать, что языковой знак есть тройка: < означающее, означаемое, синтактика >» (Мельчук 1973:20, emphasis: Мельчук; see also Bierwisch 1982:65).

Against this background, the formation of lexical classes is describable as the profiling of certain semantic contrasts of roots yielding grammatically relevant oppositions of lexical stems[2]:

Conceptual Space A	Conceptual Space B
Grammem A	Grammem B
Stem a	Stem b

The function of forming lexical categories (word classes) is to ease identifying lexical words, i.e. symbols for context-independent concepts. Moreover, lexical categories form the base structure on top of which grammatical processes operate. Therefore, grammatical categories also ease identifying grammatical words, i.e. symbols for contextually specified concepts.

A typical representative of a classificational category is nominal gender (e.g. Зализняк 1967:31, Маслов 1997:127). Corbett shows that the formal marking of a Russian noun as either 'masculine', 'feminine' or 'neuter' is governed by the semantic classification according to sex. When sex is irrelevant, i.e.when a noun names a kind of thing which is is not specified for sex, the noun will receive its gender value by virtue of the type of

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[2] Zaliznjak speaks of the opposition of paradigms (cf. Зализняк 1967:32). Classificational categories then form, so to speak, inflectional paradigm paradigms.

declension it belongs to. This point of view is supported by examples like *дедушка* or *дядя*. These nouns are masculine even though they belong to declension II which is usually associated with feminine gender (see Corbett 1991:34-43 for details). Whether the gender value is semantically given or whether it is due to morphology, it will have to be specified in the lexical entry. As Lehmann writes:

"Im Falle der Substantive für unbelebte Objekte, vgl. *stol, stena, okno*, ist das Genus unabhängig von der lexikalischen Bedeutung, aber auch hier ist es abhängig vom lexikalischen Stamm" (Lehmann 1999a:141).

To recapitulate, one of the ontological-conceptual dimensions structuring the root lexicon, biological sex, gains grammatical significance, which manifests itself in the stem lexicon as the gender system. Since only a subset of all nouns can be categorized according to sex, the language has to resort to other criteria besides sex to integrate all nouns into the gender system. This brings it about that there are two main strategies to assign gender: If the noun denotes a kind of thing classifiable according to sex ('male' or 'female'), this property will govern gender choice ("semantic assignment", cf. Corbett 1991:40). The semantic content of the sign determines its grammatical category (see also Плунгян & Романова 1990:240: "содержательная детерминация"). If the kind named by the noun is not unequivocally specified for sex (e.g. *собака*), gender will be assigned according to declension type. The result is a classification of (almost) all Russian nouns according to masculine, feminine and neuter nouns, which enables the evolution of agreement patterns that help identifying syntactic relations within a sequence of words.

«С этой точки зрения и та грамматическая категория, которую называют родом (например, в индоевропейских или афразийских языках), и та грамматическая категория, которую называют (именным) классом (например, в нигеро-конголезских, в частности в банту) ничем не отличаются друг от друга: это конкретно-языковые реализации одной и той же грамматической категории "согласовательный класс"» (Плунгян & Романова 1990:232).

Accordingly, Zaliznjak deals with category of gender in Russian under the heading «Грамматическая категория согласовательного класса» (Зализняк 1967:62).

1.1.3. The opposition of base and derivation: derivational paradigms

Mel´čuk describes derivational meanings as meanings which are not inflectional but expressed by linguistic forms similar to inflectional markers (cf. Мельчук 1997:272). The crucial difference is characterized as follows:

«В то время как граммема обязательно принадлежит к некоторой категории и определяется именно как элемент словоизменительной категории, дериватема вовсе не обязана принадлежать к какой-либо категории.» (Мельчук 1997:273).

Whereas grammatical meanings by definition form oppositions, for derivational meanings it holds that: «...дериватемы НЕ ОБЯЗАНЫ входить в противопоставления: в отличие от граммем, они могут успешно функционировать и вне всякого противопоставления.» (Мельчук 1997:273). Derivation is, so to speak, the linguistic means to explore new land on the conceptual-semantic map: «В актуальном процессе речевой коммуникации оно (=word formation, OMR) изготовляет лексемы, не подлежащие занесению в словарь» (Мельчук 1997:294).

None the less, linguistic expressions resulting from derivation at the same time form systematic oppositions with their base expression. If, for example, the derivational suffix -*ик* attaches to *дом* to form *дом-ик*, the base and the derivation stand in a regular semantic opposition: *дом* relates to *домик* in the same way as *кот* relates to *котик*, *мяч* to *мячик*, *птица* to *птичка* etc. As noted by Plungjan (cf. Плунгян 1988), the base form and the derived form stand in a privative opposition: while the semantics of *домик* contains, roughly speaking, the components 'house' and 'small', *дом* means simply 'house' (and not 'non-small house'). Importantly, privativity is not compatible with the criterion of obligatoriness characteristic of grammatical oppositions: privative oppositions are those oppositions in which the signaling of a certain value of some attribute opposes to the non-signaling of a value of this attribute, which obviously runs counter to obligatoriness:

"if Category I announces the existence of A, then Category II does not announce the existence of A, i.e. it does not state whether A is present or not"
(Jakobson 1931/1984:1, see also Jakobson 1957/1984:47).

While derivational meaning oppositions are privative, grammatical oppositions are not: «[Г]рамматические оппозиции не могут быть привативными» (Плунгян 1988:19). According to Plungjan, the obligatoriness of grammatical oppositions implies their non-privativity. Consequently, oppositions resulting from derivational processes cannot be "grammatical".[3]

2. Aspect as a classificational grammatical category

2.1. A semantic assignment rule for aspect

We saw that lexically derived forms stand in privative semantic opposition to their base form, in contrast to grammaticalized inflectional semantic oppositions which are never privative. But then, how comes that the grammatical category of aspect in Russian is often viewed as a derivational category?

Independently of each other, Bybee and Dahl observed (on the basis of respective 50 and 64 languages) one type of perfective aspect that evolved via inflection and another type of perfective aspect that evolved via derivation (cf. Bybee & Dahl 1989). In languages of the second type the perfective marker can be traced back to so-called bounder-elements (comparable to the English *out, up, apart...*), which modify the verbal stem with the effect of making the process denoted by the verb 'bounded' or 'telic'. Russian is a typical representative of this type of language:

"In spite of the parallels that can be found in other languages, Slavic languages seem to have gone further than other languages towards generalizing the applicability of bounder perfectivization, and making it an essential part of the aspect system"
(Bybee & Dahl 1989:86).

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[3] Here Plungjan's terminology differs from Mel´čuk's who considers inflectional as well as derivational meanings to be grammatical meanings: «Значение называется *грамматическим*, если оно является либо словоизменительным или квазисловоизменительным, либо словообразовательным» (Мельчук 1997:307).

It seems that only (most of the) Slavic languages developed secondary imperfectives on the basis of the bounder perfectives; "a derivational imperfectivization process by which secondary imperfective verbs are formed from perfective ones" (Bybee & Dahl 1989:86). Note that Bybee & Dahl consider secondary imperfectivization to be a "derivational" process. Jumping ahead, we will see that this is not correct.

Thus, Russian somehow integrates both lexical derivation and grammatical inflection into one grammatical category. Lehmann accordingly calls aspect "derivational grammatical category" (Lehmann 1999b:215). At a different place he explains that derivational grammatical categories occupy an intermediate position between inflectional and classificational categories (cf. Lehmann 1999a:144). Padučeva takes on the following stand:

«...трактовать вид в грамматике не как словоизменительную, а как классифицирующую категорию [...]. [М]ы исходим из того, что глаголы разных видов - это разные лексемы, а не словоформы одной лексемы. Граммемы вида - НСВ и СВ - в составе этих лексем имеют каждая свое значение. Его и надо истолковать. Т.е. объектом рассмотрения служит то общее, что есть в глаголах одного вида, а не те различие, которые существуют в видовых парах разных глаголов.» (Падучева 1996:85)[4].

Following Padučeva, I will view aspect for the time being as a classificational category. Let us remember: languages differ as to which semantic features they "choose" to become relevant for grammatical processes to operate on; the lexical classes defined by the "chosen" semantic features then gain grammatical relevance. In the domain of nouns, for example, the lexemes *женщина* and *мужчина*, *сестра* and *брат*, *львица* and *лев* etc. form pairs according to the semantic feature of sex, which is grammatically relevant in that the sex value of the denotation of the noun determines the grammatical gender value of the noun. Now, verbal lexemes associate with an aspectual value by virtue of their

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[4] Note what the same author stated earlier on: «Поскольку вид считается словоизменительной категорией, совокупность форм СВ и НСВ рассматривается как один и тот же глагол - если, разумеется, у глагола есть обе формы, притом с определенным «стандартным» семантическим соотношением» (Падучева 1986:418). This passage is dropped in the revised version of the 1986-paper (cf. Падучева 1996:16).

semantic structure in a similar way. It should be noted, however, and this is also in perfect analogy to nominal gender, that not every verbal lexeme receives its aspectual value on the basis of its semantics. There are still other principles governing aspectual categorization besides semantic assignment (all of the verbal lexemes possessing the semantic feature X associate with the grammatical aspectual value Y). It is time to point out that every Russian verb has its aspectual value. Being a grammatical category, verbal aspect is obligatory after all:

«Вид в русском языке является грамматической категорией. Что это значит? Это значит, что ее выражение обязательно: всякий глагол, употребленный в высказывании на русском языке, обладает тем или иным значением категории вида, т.е. является глаголом либо совершенного, либо несовершенного вида» (Зализняк & Шмелев 1998:9).

What in particular ist the semantic assigment rule associating Russian verbs with their aspectual value? Let me briefly discuss Padučeva's (Падучева 1996) answer to this:
In the tradition of Maslov (Маслов 1948) and Vendler (Vendler 1967), Padučeva classifies Russian verbs semantically according to the kind of situation that the verb describes with respect to the grammatical reflexes that it shows. Thus, those semantic criteria are determined that, directly or indirectly, impact on the morphology or syntax of Russian sentences. In other words, Padučeva tries to identify those semantic oppositions of the root lexicon that manifest themselves as grammatically relevant oppositions in the (verbal) stem lexicon of Russian. As a consequence, the lexical entry (формат толкования) of every verb is coindexed with one of the relevant Aktionsart classes. Padučeva speaks of verbs as belonging to "primary T(axonomic)-categories". At one point, Padučeva refers to primary T-categories as "семантические предсказания" (Падучева 1996:121). Leiss, who develops very similar thoughts with regard to Germanic Languages, adopts from Dressler the term "verbal character" to name the Aktionsart of a verb (cf. Leiss 1992). The verbal character is fully determined by the meaning of the root. While it is one criterion ('male' or 'female') that partitions noun into two classes according to sex, it is six semantic criteria in Padučeva's analysis ('static' or 'dynamic'; 'temporally located' or 'temporally non-located'; 'controlled' or 'uncontrolled'; 'telic' or

'non-telic'; 'resultative' or 'non-resultative'; 'momentary' or 'temporally extended') that together lead to eight hierachically ordered primary T-categories (**«Иерархия первичных Т-категорий»**, cf. Падучева 1996:107). Here they are (the brackets contain the Russian label and an example)[5]:

1. stative relations not located in time (вневременные свойства\соотношения, e.g. *вмещать*)
2. states located in time (состояния ингерентные, e.g. *болеть*)
3. dynamic controlled non-telic situations (деятельности, e.g. *гулять*)
4. dynamic controlled telic non-resultative situations (действия обычные, e.g. *открыть*)
5. dynamic controlled telic resultative situations (действия с акцентом на результате, e.g. *найти*)
6. dynamic uncontrolled non-telic situations (процессы непредельные, e.g. *кипеть*)
7. dynamic uncontrolled telic temporally extended situations (процессы предельные, *растаять*)
8. dynamic uncontrolled telic momentary situations (происшествия, z.B. *лишиться*).

Now, according to this theory, the T-category membership of a verb determines its primary (default) aspectual value. Thus, eight semantic features are in effect responsible for assigning the values 'perfective' or 'imperfective' to verbal lexemes in Russian. Verbs of class 1, 2, 3 and 6 are basically imperfective, verbs of class 4, 5, 7 and 8 are basically perfective.

2.2. Nominal classes and aspect

In this section, I will more carefully pursue the analogy between the stem classification in the realm of nouns (gender) and the stem classification in the realm of verbs (aspect). Plungjan & Romanova distinguish between two types of systems of nominal classification: agreement class systems and classifier systems (cf. Плунгян & Романова 1990). Both kinds of systems differ from each other in two respects. First, nominal categorization in classifier systems (e.g. in Vietnamese) is restricted to certain syntactic contexts like, for instance, the combination with numerals. In contrast to that, nominal categorization in agreement class systems (e.g. in German or Russian) is context-independent; the category that a noun belongs to must always be signalled, i.e. it is obligatory. Furthermore, even though «Принципиальных различий в семантике согласовательных классов и классификаторов нет» (Плунгян & Романова 1990:242), both kinds of systems differ with respect to how transparent their semantics typically is:

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[5] For the precise definitions of the semantic criteria, please consult Padučeva 1996.

«Если употребление согласовательных морфем в идеальном, так сказать, случае вообще не связано с семантикой, то употребление классифицирующих морфем в таком же идеальном случае целиком определяется семантикой.» (Плунгян & Романова 1990:237).

For agreement class systems, this leads to a somewhat paradoxical situation:

«[У] согласовательных классов нет и в принципе не должно быть никакого семантического содержания и в то же время не существует согласовательных систем, полностью лишенных семантического содержания.»
(Плунгян & Романова 1990:239).

Plungjan & Romanova propose a historical explanation along the following lines (see also Kibrik 1992):

«Существует гипотеза, согласно которой максимальная степень семантической мотивированности присуща системе в момент ее возникновения [...]; далее следуют процессы постепенной десемантизации с обновлением семантической базы (ср. появление "одушевленности" в классных системах славянских языков и банту) и т.д.» (Плунгян & Романова 1990:241).

«Исходная природа классифицирующих категорий всегда семантическая, но в различных языках они могут в разной степени быть оснащены кодирующими средствами и "догружены" вторичными функциями.» (Кибрик 1992:127).

Plungjan & Romanova's characterization of noun class systems boils down to three main components: First, every noun class system is or was grounded in semantics:

«Совокупность всех 'm' (semantic features, OMR), являющихся семантическими коррелятами именной классификации, образует семантическую базу именной классификации в данном языке» (Плунгян & Романова 1990:241).

Secondly, the resulting lexical classes are grammatically relevant. It is not a partition of mere semantic space, but rather of grammatical space (it is not roots but stems which are categorized). This means that the semantic features in some way or the other manifest themselves in morphosyntactic patterns:

«[К]огда мы говорим о противопоставлении различных групп имен, имеем в виду не просто семантическую дифференциацию (которая, бесспорно, также имеет место), а то, что указанные различия между группами, так или иначе отражаются в грамматических правилах языка.» (Плунгян & Романова 1990:231).

Thirdly, and of crucial importance for us, noun class systems can make use of primary and secondary semantic oppositions:

«[С]емантическая база классной системы состоит из двух значений: из значений, входящих в отношения формальной или содержательной детерминации (первичные значения), и из словообразовательных значений (вторичные значения)» (Плунгян & Романова 1990:242).

Determination by content (содержательная детерминация) is semantic assignment, as discussed above with respect to the gender category. In this case, conceptual space impacts on grammatical space, in form of a conditional like the folling one: "if male sex, then masculine gender". Determination by form (формальная детерминация) is when grammatical space impacts on conceptualization. According to Plungjan & Romanova, Bantu languages make use of determination by form in that they possess rules like the following one: "If grammatical class human, then ontological status human" (cf. Плунгян & Романова 1990:240). On any event, primarily determined class membership is class membership as specified in the lexical entry of the noun. Secondarily determined class membership, by contrast, results from recategorizing a noun by means of a word formation rule.

Now let us return to verbal aspect and pursue the analogy to noun class systems. We can expect the aspectual system to likewise entertain the three components. First, aspect is

grounded in semantics in that it operates on top of certain situation types (Aktionsarten) corresponding to classes of verbal roots. Secondly, this verbal classification manifests itself in morphosyntax, which justifies grammatically categorizing verbs as 'perfective' or 'imperfective', respectively. This implies that the classification is not merely a (purely semantic) root classification, but a (grammatically relevant) stem classification. Thirdly, a verb either has the aspectual value which is specified in its lexical entry, or, if the verb is not listed in the lexicon, but derived from another verb's lexical entry, a verb may get its aspectual value from a word formation rule.

Russian aspect is peculiar in that, on top of the classificational category of aspect described above (sometimes called "lexical aspect"), there evolved an inflectional category of aspect (sometimes called "grammatical aspect" or "вид").

3. The semantic base of Russian aspect

3.1. Situation and sentence meaning

Nouns prototypically denote objects. Gender classes are accordingly lexeme classes that semantically correlate with object categories. Verbs prototypically denote events or, as I prefer to put it, situations. Aspectual classes are accordingly lexeme classes that semantically correlate with situation categories. Sentences are constructions used to refer to situations.[6] It should be noted that the situation described by a sentence does not match the situation referred to by the sentence:

"[T]he content of a sentence is a selective or partial description of a situation. Thus, the situation itself has many more properties than are made explicit by the sentence content. Some of those can be inferred by the listener from other knowledge sources, others remain entirely implicit" (Klein 1995:680-681).

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[6] This referential meaning is not the whole facet of the meaning of a sentence, of course. Functionally speaking, a sentence serves the purpose of performing a speech act (cf. Bierwisch 1982:65, see also Кибрик 1992:184-186).

The verb, in turn, gives a partial description of the partial description given by the sentence. The partial descriptions associated with different verbs can be classified in terms of Padučeva's T-categories:

"What is specific to our meaning definitions is that they have a certain format specific for a given taxonomic, i.e. ontological, category of verbs [...]. Different formats are provided for actions, processes, states, happenings, etc." (Paducheva 1998:354).

A T(axonomic)-categories is thus the situation kind, or Aktionsart, which is lexically associated with a certain verb; T-category membership follows from a verbal root's idiosyncratic semantic properties.

3.2. Time - how the physical manifests itself in the conceptual

The probably most important grammatical manifestations of time are tense and aspect. As a matter of fact, every utterance happens at a certain point of time. Most languages make use of this fact by providing grammatical means to express whether the situation denoted by a sentence is located prior to the moment of speech, at the moment of speech, or after the moment of speech. In other words, most languages have a tense system, i.e. grammaticalized means to express temporality.

At the same time, every situation that happens on earth is processing in time. Many languages make use of this fact by providing grammatical means to express the particular way that the situation denoted by a sentence is processing in time: whether the situation is extending continuously over a long time period (e.g. the hunting of a whale) or a short time period (e.g. the whale's blowing); whether the situation is being interupted (e.g. the being visible of a whale - the whale appears at the surface, dives away, reappears after a while, dives away again and so on); whether the situation happens momentarily (e.g. the spotting of a whale); whether the situation is starting at a certain point of time to last eternally (e.g. the being dead of a whale) or whether it was holding ever since up to a certain point of time (e.g. the dying out of a whale species). As these examples show, situations differ as to the structuring of their "situation time" (cf. Klein 1992, 1995). By virtue of these differences, situations can be sorted into situation types. Lehmann (1999b) uses the term "actionality" in this connection: every utterance of a sentence delivers pieces

of information regarding the actionality of the described situation. If actionality is expressed by morphosyntactic structures, the language possesses the grammatical category of aspect.

3.3. Underspecified semantic structures

We saw that time manifests itself in language in that situations are being classified according to actionality criteria. As is well-known, Vendler determined four such situation classes for English (cf. Vendler 1967):

Conceptual Space "Situation"			
Achievement	Accomplishment	Activity	State

These four classes are often reduced to three categories: the achievements are subsumed under the accomplishments. The three categories are then supposed to be universals, i.e. entities relevant for every natural language without exception, compare the Jackendoffian ontological categories 'event', 'action' and 'state' (cf. Jackendoff 1990, see also Зализняк & Шмелев 1997:40-41):

Conceptual Space "Situation"		
Accomplishment/Event	Activity	State

There is a problem with this approach, however, when it comes to verbs that Mehlig calls "pseudointransitives". This is a large group of Russian verbs the semantics of which does not determine the type of the situation denoted by the sentence.

It is not possible to unequivocally determine the situation type of these verbs because taken in isolation, these verbs leave it open whether the final situation type will be an accomplishment (event) or activity. To be sure of the situation type, one has to take into account the character of the direct object: only if the direct object is holistic (in the sense of Leiss 1992:51-52), the situation will unequivocally be an accomplishment:

(1) *Смотри, Коля рисует.*   [*activity*; no direct object]

(2) *Смотри, Коля рисует зайчика.* [*accomplishment*; holistic direct object]

(3) *Смотри, Коля рисует зайчиков.* [*activity*; non-holistic direct object]

Again, we can note an analogy to the gender classification of nominals. In isolation, a noun like *doctor* is not specified for 'man' or 'woman'. Additional pieces of information, in this case coming from context, must be taken into account to decide the matter so that the appropriate gender value can be found:

"In the most straightforward examples, like English *doctor*, the different genders correlate with different meanings (male or female), which are the core meanings of the genders. *Doctor* takes *he* when it denotes a male, and *she* when it denotes a female. Given that its semantics allow it to be used to denote males and females, the normal assignment rules will account for the genders." (Corbett 1991:181-182).

Semantic assigment rules presuppose reference. After all it is properties of the referent that determine which grammatical value to assign. If the referent of *my doctor* is female, semantic assignment of gender will yield 'feminine'. Reference is a matter of pragmatics, however; it is established neither at the word level, nor at the sentence level, but rather at the utterance level. For this reason, it is possible that the conceptual-semantic value that is crucial for semantic assignment is not yet determined at the word or sentence level. That is to say, expressions may be semantically underspecified with respect to a semantic assignment rule at the word or sentence level.

German, for example, possesses a small number of nouns which, at the word level, are underspecified with respect to gender. An example would be *Abgeordnete*. Sex is specified only after the determiner comes into play: *der Abgeordnete* vs. *die Abgeordnete* (cf. Eisenberg 1994:175). Similar with Russian verbs like *рисовать*. Their word-level meaning is underspecified with respect to actionality. It is only after the direct object argument of the verb is taken into account that T-category membership, which is relevant for semantic assigment of aspect, is unequivocally determined.

Going back to the German case, there is reason to say that the article in German is a class marker. If we have to await for the article to attach to a noun like *Angestellte* before we can determine the sex value relevant for gender categorization, then this means that the

article is the linguistic sign telling us to which class the nominal expression belongs. Functionally speaking, coreferential elements like personal pronouns serve as class markers too. However, I want to reserve the term "class marker" to expressions which appear within the phrase headed by the possibly underspecified noun. Given this, we can say: the German article is a class marker, while the English article is not (cf. Corbett 1991:63).

3.4. Underspecified lexemes versus conversion

It is not only the direct object argument of a Russian verb that may influence class (T-category) membership. Compare the following examples from Padučeva (Падучева 1996:98):

(4) *Камень закрывал вход в пещеру.*
    The stone hid the entry to the cave. [*state*]

(5) *Охотник закрывал вход в пещеру.*
    The hunter closed the entry to the cave. [*accomplishment*]

According to Padučeva, the aspectual interpretation as state or accomplishment is dependent on whether or not the subject of the sentence bears the semantic feature "self-moving". To name another example, the verb *любить* can realize states or activities:

(6) *Они любят друг друга.*
    They love each other. [*state*]

(7) *Они любят друг друга три раза в день.*
    They are loving each other three times per day. [*activity*]

The verb *говорить* may even realize three different aspectual contexts; it can naturally be used as an activity, an accomplishment or a state verb (cf. Lehmann 1999b:227):

(8) *Попугай говорит.*

The parrot is talking. [*activity*]

(9) *Попугай говорит, что сокровище находится недалеко отсюда.*

The parrot is saying that the treasure is not far from here. [accomplishment]

(10) *Закон говорит, что сокровище принадлежит тому, кто его найдет.*

The law states that the finder of a treasure will be the owner of the treasure. [state]

There is a problem with the assumption that the lexeme *рисовать* is semantically underspecified with respect to its aspectual class, however. Under the underspecification approach, the lexical meaning of a Russian verb like *рисовать* would be such that this verb fits both an accomplishment context and an activity context, in contrast to a verb like, for instance, *гулять* which is semantically constrained to activity contexts. If this was so, one would expect (11) to be possible, but it is not. To use *рисовать* as an accomplishment it must be accompanied by a holistic direct object argument (cf. Mehlig 1981:112):

(11) **Каждое утро Коля рисует за 10 минут.*

(12) *Каждое утро Коля рисует зайчика за 10 минут.*

This suggests that taken in isolation, the verb *рисовать* is not compatible with accomplishment contexts. An alternative approach would be to take *рисовать* as an activity verb by default, the meaning of which can be coerced to yield an accomplishement verb if it is accompanied by linguistic material building an accomplishment context.

Similarly, *любить* can be viewed as a state verb by default, but principally coercable into a different aspectual class via conversion:

«[М]ы хотим понимать под конверсией: такой морфологический способ, при котором в роли означающего выступает правило, или операция, изменения грамматической характеристики языкового знака» (Мельчук 1973:19).

The notion of conversion presupposes that the meaning of the context in which a linguistic sign appears can press on the meaning of the sign, and that the impact of this is predictable (see also Olsen 1990).

With respect to *любить* the feature control is crucial. If *любить* realizes in the context of *три раза в день*, it must adjust to an iterated situation type. To motivate this conceptual change, it is plausible to assume an intentional power that controls for this iteration. In other words, the value of the feature control specifies as [+ controlled]. State-verbs, however, do not have the feature control (cf. Падучева 1996:107). This feature is simply not relevant for their usual lexical-conceptual structure. Therefore, if a state verbs is actualized within a context in which control becomes relevant, the conceptual structure must be furnished with this feature on-line; context pressure forces the state-concept 'love' to turn into the activity-concept 'love'.

It should be noted that, whether or not such a conceptual adjustment is possible, is a question of imagination in the end. With respect to the pluralization of lexical singulars (singularia tantum), Zaliznjak points out that:

«[Е]сли такая потребность [...] возникает (а это в принципе всегда возможно), то недостающие словоформы со значением и внешними признаками мн. числа без труда будут построены: *ла́и, гордости, меди* и т.д. » (Зализняк 1967:57).

Compare the following state predications. They illustrate that the plausibility of turning states into iterations can differ considerably:

(13) *?*Они знали этот город три раза в день.*

(14) *?Он ревновал три раза в день.*

(15) *?Он болел три раза в день.*

(16)   *Он болел три раза в год.*

The same point is made by Padučeva when she says that:

«Заметим, что у мастера слова легко восполняют такие "пробелы", ср., например, у Солженицына *приючать* - НСВ от непарного *приютить*» (Падучева 1996:124).

3.5. Partitioning the conceptual space "situation"

The semantic base of the classificational category of aspect is a partition of the conceptual space "situation" into different situation types. The challenge is to identify those categories that correctly predict those morphosyntactic patterns that can actually be observed in the language. Different systems have been proposed. The four Vendlerian classes are famous and useful, and if only for being well-known and established. Zaliznjak & Šmelev (Зализняк & Шмелев 1997) advocate a three-class-system. Carefully investigating the patterns to be found in Russian, Padučeva end up with a fine-grained eight-class-system:

Conceptual Space "Situation"							
Happenings	Result-oriented Actions	Accompl-ishments	Culmin-ations	Processes	Activities	States	Relations
8	5	4	7	6	3	2	1
Grammatical Space "Perfective"				Grammatical Space "Imperfective"			
Perfective Verbal Stem				Imperfective Verbal Stem			

1. stative relations not located in time (вневременные свойства\соотношения, e.g. *вмещать*)
2. states located in time (состояния ингерентные, e.g. *болеть*)
3. dynamic controlled non-telic situations (деятельности, e.g. *гулять*)
4. dynamic controlled telic non-resultative situations (действия обычные, e.g. *открыть*)
5. dynamic controlled telic resultative situations (действия с акцентом на результате, e.g. *найти*)
6. dynamic uncontrolled non-telic situations (процессы непредельные, e.g. *кипеть*)
7. dynamic uncontrolled telic temporally extended situations (процессы предельные, *растаять*)
8. dynamic uncontrolled telic momentary situations (происшествия, z.B. *лишиться*).

4. The classificational category of aspect

4.1. A list of 468 semantically classified verbs

How can the speaker of Russian tell whether a verb is perfective or imperfective? We saw that one answer is: the (primary) aspectual value of a verb derives from situational semantic criteria. This is not the whole story, however. There are also morphosyntactic cues:

"Durch Hinzufügung eines Verbalpräfixes an ein an sich imperfektives Verb wird dieses in den perfektiven Aspekt überführt." (Isačenko 1968:355).

I now go on to address the question of how reliable this formal criterion is. In how far is the presence of a verbal prefix really an unequivocal indication of perfectivity? To answer this question I want to get granular on a list of 468 Russian verbs. It is those verbs that Padučeva uses to motivate her eight T-categories. They distribute as follows:

64 relation verbs (вневременные свойства\соотношения; Падучева 1996:129-130),

120 state verbs (состояния ингерентные; 137-138),

157 activity verbs (деятельности; 143-144),

45 process verbs (процессы непредельные; 141-142),

23 accomplishment verbs (действия обычные; 91, 111-113),

5 culmination verbs (процессы предельные; 91, 111-113),

40 result-oriented action verbs (действия с акцентом на результате; 113-117),

13 happening verbs (происшествия; 92, 113).

To compare these verbs, I will make use of Padučeva's diathesis model (cf. Paducheva 1998). For the present purposes, it will be sufficient to work with three syntactic positions: subject, direct object, and indirect object. The subject is usually recognizable from nominative case marking (there are a few exceptions). I will count every accusative argument as instantiating the direct object. Dative verbal arguments are relatively rare and will be counted as indirect objects, side-by-side with oblique case arguments (genitive, locative, instrumental), prepositional phrases or infinitival complements. I will sort the verbs according to two criteria: Does the verb take a direct object? Is the verb prefixed? An element will count as a prefix if it belongs to the 19 forms identified by Krongauz (cf. Кронгауз 1998:99) and if it is listed in Tichonov's morpheme dictionary (Тихонов 1996) as an autonomous morpheme. In the list below, prefixes will be bold-faced. An element

will be called "prefix candidate" if it is not listed as an autonomous morpheme by Tichonov, but equals a form within Krongauz' prefix sample, on condition that either there is a Russian verb of the same form but lacking this "prefix candidate", or there is a Russian verb of the same root having a prefix (according to the criteria from above). The verb *находиться*, for example, is counted as a prefix verb candidate because there is the Russian verb *приходиться*, and *соответствовать* is a prefix verb candidate because there is the verb *ответствовать*. Standard for what there is and what there is not is Zaliznjak's grammatical dictionary (Зализняк 1980).

4.1.1. Relation verbs (вневременные свойства\соотношения)

46 of 64 relation verbs do not take accusative objects. 12 of these are prefix verbs. Six are prefix verb candidates. So there remain 28 verbs that do not take accusative objects and that lack a prefix.

	Sbj		DirObj	IndirObj
1.	кому	*доводится*	---	,что...
2.	что	*проходит*	---	где (мимо чего)
3.	что	*обстоит*	---	как
4.	кто	*приходится*	---	кому кем (*родственником*)
5.	что	*выделяется*	---	кем/чем
6.	кто/что	*располагает*	---	чем (*ресурсами*)
7.	что	*объясняется*	---	чем
8.	кто/что	*отличается*	---	чем // от кого/чего
9.	кто/что	*примыкает*	---	к кому/чему
10.	кто/что	*относится*	---	к кому/чему
11.	что	*доходит*	---	до кого/чего
12.	кто/что	*походит*	---	на кого/что
13.	что	*находится*	---	где
14.	кто/что	*соответствует*	---	кому/чему
15.	что	*принадлежит*	---	кому/чему
16.	что	*зависит*	---	от кого/чего
17.	что	*происходит*	---	от кого/чего
18.	что	*состоит*	---	из чего
19.	кому	*везет*	---	
20.	кто	*бодается*	---	
21.	что (*волосы*)	*вьется*	---	
22.	кто	*картавит*	---	
23.	кто/что	*кусается*	---	
24.	кто/что	*скрипит*	---	
25.	кто	*хромает*	---	
26.	что	*годится*	---	кому
27.	что	*лежит*	---	где
28.	что	*встречается*	---	где
29.	что	*покоится*	---	где
30.	что	*гласит*	---	,что...

31. кто/что	*противоречит*	---	кому/чему
32. что	*предстоит*	---	кому/чему
33. что	*предшествует*	---	кому/чему
34. что	*предназначается*	---	кому/чему
35. что	*взимается*	---	кем
36. кто/что	*характеризуется*	---	чем
37. кто	*числится*	---	кем
38. кто/что	*обладает*	---	кем/чем
39. что	*базируется*	---	на чем
40. кто/что	*преобладает*	---	над кем/чем // среди кого/чего
41. кто/что	*реагирует*	---	на кого/что
42. что	*свидетельствует*	---	о ком/чем
43. кто/что	*равняется*	---	с кем/чем
44. кто	*водится*	---	с кем
45. что	*граничит*	---	с чем
46. кто/что	*гармонирует*	---	с кем/чем

Among the 18 relation verbs that take an accusative object, there are six prefix verbs. The element *у-* is counted as a system prefix with *предусматривать*. Three verbs have prefix candidates. Nine accusative-taking verbs lack a prefix.

1. что	**вмещает**	сколько	
2. что	**на**считывает	сколько	
3. что	**пере**секает	что	
4. что	**обо**значает	что	
5. что	**о**значает	что //(---	инф.)
6. кто/что	*предусматривает*	что	
7. кто/что	*содержит*	кого/что	
8. кто/что	*выражает*	что	
9. кто/что	*изображает*	кого/что	
10. кто/что	*весит*	сколько	
11. кто/что	*стоит*	сколько	
12. что	*ведет*	кого/что	к кому/чему (куда)
13. что	*предвещает*	что	
14. кто/что	*имеет*	что (...*круглую форму*)	
15. кто/что	*взимает*	что	
16. кто/что	*образует*	что (...*живописную группу*)	
17. что	*значит*	что //(---	инф.)
18. кто	*косит*	что (*глаза, рот*) //(---	чем)

4.1.2. State verbs (состояния ингерентные)

97 (!) of 120 state verbs do not take accusative objects. Nine of them are prefixed, twelve have a prefix candidate. With *недоумевать*, *-до-* is counted as a prefix candidate because there is the Russian verb *подразумевать* and because *-до-* is an autonomous morpheme in *недоучитывать*, according to Tichonov (cf. Тихонов 1996:302). All of the other 76 verbs are not prefixed.

1. кто/что	**от**сутствует	---		
2. кто/что	**при**сутствует	---		
3. что	**вы**ступает	---		
4. кто	**пере**живает	---		
5. кто	**рас**считывает	---	на кого/что	
6. кто	**по**лагает	---	,что...	
7. кто/что	*угрожает*	---	кому/чему	чем
8. кто	*собирается*	---	инф.	
9. кто/что	**вы**глядит	---	как	
10. что	*выдается*	---		
11. что	*нарывает*	---		
12. кто	*недоумевает*	---		
13. кто	*надеется*	---	на кого/что // ,что... // инф.	
14. кто	*сожалеет*	---	о ком/чем	
15. кто	*подчиняется*	---	кому/чему	
16. кто	*отказывает*	---	кому	
17. что	*надлежит*	---	кому/чему	
18. что	*подлежит*	---	чему	
19. кто	*дорожит*	---	кем/чем	
20. кто/что	*находится*	---	где	
21. кто	*сочувствует*	---	кому	
22. кого	*знобит*	---		
23. кому	*нездоровится*	---		
24. кому/чему	*стоит*	---	инф.	
25. что	*мутит*	---		
26. кто	*парит*	---		
27. что	*пустует*	---		
28. кто	*здравствует*	---		
29. кто/что	*алеет*	---		
30. кто/что	*вьется*	---		
31. кто/что	*воняет*	---		
32. что	*зеленеет*	---		
33. что	*зияет*	---		
34. что	*лоснится*	---		
35. что	*маячит*	---		
36. что	*мерцает*	---		
37. что	*реет*	---		
38. что	*торчит*	---		
39. что	*царит*	---		
40. что	*чернеет*	---		
41. кто	*бодрствует*	---		
42. кто	*болеет*	---		
43. что	*клонится*	---		
44. кто/что	*мерзнет*	---		
45. кто/что	*мокнет*	---		
46. кто	*голодает*	---		
47. кто	*бесится*	---		
48. кто	*веселится*	---		
49. кто	*возмущается*	---		
50. кто	*волнуется*	---		
51. кто	*грустит*	---		
52. кто	*ликует*	---		
53. кто	*нервничает*	---		
54. кто	*огорчается*	---		

55. кто	*тревожится*	---	
56. кто	*колеблется*	---	
57. кто	*хандрит*	---	
58. кто	*ратует*	---	за кого/что // против кого/чего
59. кто	*протестует*	---	против кого/чего
60. кто	*метит*	---	в кого
61. кто	*пребывает*	---	в чем
62. кто/что	*нуждается*	---	в ком/чем
63. кто	*злится*	---	на кого/что
64. кто	*гневается*	---	на кого/что
65. кто	*негодует*	---	на кого/что
66. кто	*претендует*	--	на что // инф.
67. кто	*стремится*	---	к чему
68. что	*клонит*	---	к чему
69. кто	*склоняется*	---	к чему (*к мнению*)
70. кто	*тяготеет*	---	к кому/чему
71. что	*чешется*	---	у кого
72. кто	*беспокоится*	---	о ком/чем
73. кто	*судит*	---	о ком/чем //---
74. кто	*господствует*	---	над кем/чем
75. кто	*скучает*	---	по кому/чему
76. кто	*тоскует*	---	по кому/чему
77. что	*хочется*	---	кому
78. кто	*радуется*	---	кому/чему
79. кто	*ужасается*	---	кому/чему
80. кто	*жаждет*	---	кого/чего // инф.
81. кто	*стыдится*	---	кого/чего // инф.
82. кто	*намеревается*	---	инф.
83. кто/что	*тянется*	---	к кому/чему
84. что	*виднеется*	---	где
85. кто/что	*покоится*	---	на чем (где)
86. кто	*бредит*	---	кем/чем
87. кто/что	*пахнет*	---	чем
88. кто	*мается*	---	чем
89. что	*кишит*	---	чем
90. кто	*любуется*	---	кем/чем
91. кто	*восхищается*	---	кем/чем
92. кто	*гордится*	---	кем/чем
93. кто	*страдает*	---	кем/чем // от чего
94. кто	*томится*	---	кем/чем
95. кто	*интересуется*	---	кем/чем
96. кто	*руководствуется*	---	кем/чем
97. кто/что	*спешит*	---	с чем // инф.

23 state verbs take accusative objects. Two of them are prefixed. Five have a prefix candidate. The verb *недолюбливать* is not counted as a prefix verb candidate because there is no verb *-любливать-* (cf. Зализняк 1980:615). So there remain 16 unprefixed state verbs with direct objects.

1. кто	***о**жидает*	кого/что
2. кто	***под**разумевает*	кого/что

3. кто	*отрицает*	кого/что		
4. кто	*приветствует*	кого/что		
5. кто	*обожает*	кого/что		
6. кто	*подозревает*	кого/что	в чем	
7. кто	*сознает*	что		
8. кто	*винит*	кого		
9. кто	*зовет*	кого		
10. кто	*ревнует*	кого		
11. кто	*критикует*	кого/что		
12. кто	*недолюбливает*	кого/что		
13. кто	*любит*	кого/что		
14. кто	*планирует*	что		
15. кто	*презирает*	кого/что		
16. кто	*терпит*	кого/что		
17. кто	*предвидит*	что		
18. кто	*предчувствует*	что		
19. кто	*желает*	кого/что // (---	чего // инф.)	
20. кто	*имеет в виду*	что // (---	,что...)	
21. кто	*знает*	кого/что //(---	о чем // ,что...)	
22. кто	*помнит*	кого/что//(---	о чем // про кого/что //,что...)	
23. кто	*считает*	кого/что	кем/чем // за кого/что	

4.1.3. Activity verbs (деятельности)

56 out of 157 activity verbs take an accusative object. Among the other 101 verbs we find five prefixed verbs and three prefix verb candidates. Counting *вращаться* as a candidate is motivated by the existence of *обращаться, учиться* is motivated by the existence of *сочиться*, and *сражаться* by the existence of *выражаться* (cf. Зализняк 1980).

1. кто	**раз**махивается	---	с кем	
2. кто	**раз**говаривает	---	с кем	о ком/чем
3. кто	**рас**суждает	---	о чем	
4. кто	**за**горает	---		
5. кто	**на**ступает	---	на кого/что	
6. кто/что	*вращается*	---		
7. кто	*учится*	---	чему	
8. кто/что	*сражается*	---	с кем	
9. кто	*плачет*	---		
10. кто	*кутит*	---		
11. что	*звонит*	---		
12. кто	*кричит*	---		
13. кто	*лает*	---		
14. кто	*мычит*	---		
15. кто	*мяукает*	---		
16. кто	*ноет*	---		
17. кто	*поет*	---		
18. кто	*пищит*	---		
19. кто	*ревет*	---		
20. кто	*ржет*	---		
21. кто	*рыдает*	---		

22. кто	*рычит*	---		
23. кто	*свистит*	---		
24. кто	*стонет*	---		
25. кто	*хохочет*	---		
26. кто	*хрипит*	---		
27. кто	*шепчет*	---		
28. кто	*шипит*	---		
29. кто	*щебечет*	---		
30. кто/что	*машет*	---		
31. кто	*ахает*	---		
32. кто	*барахтается*	---		
33. кто/что	*брызжет*	---		
34. кто/что	*вертится*	---		
35. кто	*ворочается*	---		
36. кто	*глотает*	---		
37. кто	*каркает*	---		
38. кто/что	*качается*	---		
39. кто/что	*кружится*	---		
40. кто/что	*крутится*	---		
41. кто	*кувыркается*	---		
42. кто	*озирается*	---		
43. кто	*плещется*	---		
44. что	*сверкает*	---		
45. кто	*фыркает*	---		
46. кто/что	*хлопает*	---		
47. что	*чешется*	---		
48. кто	*шагает*	---		
49. кто/что	*шевелится*	---		
50. кто/что	*бегает*	---		
51. кто/что	*ездит*	---		
52. кто/что	*ходит*	---		
53. кто/что	*лазит*	---		
54. кто/что	*летает*	---		
55. кто/что	*носится*	---		
56. кто/что	*плавает*	---		
57. кто/что	*ползает*	---		
58. кто/что	*работает*	---	над чем	
59. кто	*смеется*	---	над кем/чем	
60. кто	*кивает*	---	чем	
61. кто	*шевелит*	---	чем	
62. кто	*щелкает*	---	чем	
63. кто/что	*виляет*	---	чем	
64. кто/что	*бряцает*	---	чем	
65. кто/что	*стучит*	---	чем	во что
66. кто	*топает*	---	чем	
67. кто/что	*действует*	---	на что	
68. кто	*играет*	---	во что // на чем // с кем	
69. кто	*следит*	---	за кем/чем	
70. кто	*беседует*	---	с кем	
71. кто	*ругается*	---	с кем	о ком/чем
72. кто	*бъется*	---	чем (*головой о стену*)	
73. кто	*восторгается*	---	кем/чем	
74. кто	*любуется*	---	кем/чем	
75. кто	*копается*	---	в чем	
76. кто	*дерется*	---	с кем	
77. кто	*болтает*	---	о ком/чем	
78. кто	*плачет*	---	о ком/чем	
79. кто	*мыслит*	---	о ком/чем	

80. кто/что	*визжит*	---	о ком/ чем	
81. кто/что	*ворчит*	---	о ком/чем	
82. кто/что	*воет*	---	о ком/чем	
83. кто/что	*скользит*	---	где	
84. кто	*бродит*	---	где	
85. что	*мелькает*	---	где	
86. кто	*сидит*	---	где	
87. кто	*спит*	---	где	
88. кто	*стоит*	---	где	
89. кто	*лежит*	---	где	
90. кто/что	*мигает*	---	кому	чем
91. кто	*моргает*	---	кому	чем
92. кто	*тренируется*	---		
93. кто	*молится*	---		
94. кто	*гадает*	---		
95. кто	*дежурит*	---		
96. кто	*агитирует*	---		
97. кто	*аккомпонирует*	---	кому/чему	
98. кто/что	*светит*	---	кому	
99. кто	*борется*	---	с кем	
100. кто	*торгуется*	---	с кем/чем	
101. кто	*метится*	---	в кого/что	

Among the 56 activity verbs that select for accusative arguments, there is only one prefix verb and three prefix candidate verbs. 52 verbs having accusative objects are not prefixed.

1. кто	**об**суждает	что	
2. кто	*учит*	кого/что	чему
3. кто	*наблюдает*	кого/что // за кем/чем	
4. кто/что	*вращает*	что // чем	
5. кто/что	*таскает*	кого/что	
6. кто	*возит*	кого/что	
7. кто/что	*гоняет*	кого/что	
8. кто	*катает*	кого/что	
9. кто	*чешет*	кого/что	
10. кто	*царапает*	что	
11. кто	*пасет*	кого	
12. кто/что	*трясет*	кого/что	чем
13. кто	*толкает*	кого/что	чем
14. кто/что	*качает*	кого/что	
15. кто	*ворочает*	что	
16. кто	*клянчит*	что	
17. кто	*ласкает*	кого/что	
18. кто	*говорит*	что//(---	,что...// о ком/чем)
19. кто	*пляшет*	что//(---	с кем)
20. кто/что	*клюет*	кого/что//(---	на что)
21. кто	*долбит*	что	
22. кто	*дерет*	кого	
23. кто	*ест*	что	
24. кто	*жнет*	что	
25. что	*жжет*	кого/что	
26. кто	*ищет*	кого/что	

27. кто	*баюкает*	кого/что		
28. кто	*бьет*	кого		
29. кто	*бомбардирует*	кого/что		
30. кто	*кует*	что		
31. кто	*колет*	кого/что		
32. кто/что	*лижет*	кого/что		
33. кто	*копает*	что		
34. кто	*косит*	что		
35. кто	*красит*	что		
36. кто	*критикует*	кого/что		
37. кто	*кушает*	что		
38. кто	*льет*	что		
39. кто/что	*месит*	что		
40. кто	*метет*	что		
41. кто	*мечет*	кого/что		
42. кто	*молит*	кого/что	о чем	
43. кто	*паяет*	что		
44. кто/что	*печет*	что		
45. кто/что	*пьет*	что		
46. кто	*пилит*	кого/что		
47. кто/что	*преследует*	кого/что		
48. кто	*пытает*	кого		
49. кто/что	*регулирует*	что		
50. кто/что	*режет*	что		
51. кто	*рубит*	что		
52. кто/что	*сыплет*	что		
53. кто	*танцует*	что		
54. кто/что	*удит*	кого/что		
55. кто/что	*штурмует*	что		
56. кто	*ждет*	кого/что //(---	кого/чего)	

4.1.4. Process verbs (процессы непредельные)

None of the 45 process verbs takes an accusative object. There are two prefix verbs, both formed by *раз-* in connection with the postfix *-ся*.

1. что	**раз**рушается	---
2. что	**раз**вевается	---
3. что	*моросит*	---
4. что	*бушует*	---
5. что	*валит*	---
6. что	*воет*	---
7. что	*веет*	---
8. что//---	*дует*	---
9. что//---	*дымится*	---
10. что	*капает*	---
11. что//---	*кипит*	---
12. что	*колеблется*	---
13. что	*вертится*	---
14. что//---	*горит*	---
15. что	*дрожит*	---
16. что//---	*коптит*	---

17. кто/что//---	*кровоточит*	---	
18. что	*кружится*	---	
19. что	*крутится*	---	
20. что//---	*льет*	---	
21. что	*сыплется*	---	
22. кто	*дышит*	---	
23. кто	*зевает*	---	
24. кто	*икает*	---	
25. кто	*кашляет*	---	
26. кто	*храпит*	---	
27. кто	*сопит*	---	
28. кто	*чихает*	---	
29. кто	*грезит*	---	
30. кто	*бредит*	---	
31. что	*работает*	---	
32. что	*двигается*	---	
33. что	*функционирует*	---	
34. что	*грохочет*	---	
35. что	*гудит*	---	
36. что	*звенит*	---	
37. что	*звонит*	---	
38. что	*звучит*	---	
39. что	*трещит*	---	
40. что	*шелестит*	---	
41. что	*шипит*	---	
42. что	*шумит*	---	
43. что	*шуршит*	---	
44. что	*плывет*	---	куда
45. что	*катится*	---	куда

4.1.5. Culmination verbs (процессы предельные)

All of the five culmination verbs are prefixed. No one of them takes an accusative object.

1. что	***рас**тает*	---	
2. что	***со**зреет*	---	
3. что	***вы**сохнет*	---	
4. что	***у**вянет*	---	
5. что	***за**ржавеет*	---	

4.1.6. Activity verbs (действия обычные)

Four out of 23 activity verbs do not select for an accusative argument, three of these four are prefixed. The fourth, non-prefixed *прыгнуть*, is formed by means of *-ну-* (see below 5.2.4.).

1. кто	***вы**стрелит*	---	в кого/ во что
2. кто	***по**ступит*	---	во что
3. кто	***у**моется*	---	
4. кто	*прыгнет*	---	во что

Among the 19 verbs with accusative objects, there are 17 prefix verbs, and one prefix verb candidate: *убить*. Unlike Tichonov, Krongauz considers the element *у-* in *убить* to be a morpheme (cf. Кронгауз 1998:108). One verb, *бросить* has no prefix.

1. кто   ***от*кроет**   что
2. кто   ***сложит***   что
3. кто/что   ***разо*греет**   что
4. кто/что   ***рас*ширит**   что
5. кто/что   ***рас*топит**   что
6. кто   ***по*красит**   что
7. кто   ***вы*сушит**   что
8. кто   ***вы*трет**   что
9. кто   ***вы*бьет**   что
10. кто/что   ***взо*рвет**   что
11. кто   ***по*вернет**   кого/что
12. кто   ***включит***   что
13. кто   ***пред*от*вратит**   что
14. кто/что   ***у*величит**   кого/что
15. кто/что   ***у*топит**   что
16. кто   ***у*говорит**   кого
17. кто   ***на*жмет**   что //(---   на что)

18. кто   *убьет*   кого

19. кто   *бросит*   кого/что

4.1.7. Result-oriented actions (действия с акцентом на результате)

11 out of 40 resultat-oriented action verbs do not take accusative arguments. Seven of these eleven are prefix verbs, four qualify for being prefix verb candidates (*успеть* is motivated, for instance, by the existence of *доспеть*).

1. кто   ***в*падет**   ---   во что (*в детство*)
2. кто/что   ***о*хладеет**   ---   к кому/чему
3. кто   *заболеет*   ---   чем
4. кто   ***раз*ведется**   ---   с кем
5. кто   ***из*неможет**   ---
6. кто   *засидится*   ---
7. кто/что   ***о*поздает**   ---

8. кто/что   *отправится*   ---
9. кто   *расстанется*   ---   с кем/чем
10. кто   *успеет*   ---   в чем// во что
11. кто   *откажется*   ---   инф.// в чем

There are 29 result-oriented action verbs taking accusative objects in the sample. 18 of these are prefixed. Another eight are prefix verb candidates. Three have no prefix.

1. кто	**вы**играет	что	
2. кто	**об**гонит	кого/что	
3. кто	**до**гонит	кого	
4. кто	**до**гадается	что//(---	о чем)
5. кто	**пере**силит	кого/что	
6. кто	**по**кинет	кого/что	
7. кто/что	**при**говорит	кого	к чему
8. кто/что	**от**зовет	кого/что	
9. кто	**рас**пустит	кого/что	
10. кто	**в**ключит	что	во что (*в список*)
11. кто/что	**за**числит	кого/что	
12. кто	**от**ложит	что	
13. кто	**пере**именует	кого/что	
14. кто/что	**при**своит	что	кому/чему
15. кто/что	**о**судит	кого/что	
16. кто	**при**влечет	кого	к ответственности
17. кто	**по**обещает	что	//инф.// ,что... кому
18. кто/что	**по**требует	кого/что	// чего// ,чтобы...// инф.
19. кто	найдет	кого/что	
20. кто/что	предоставит	кого/что	кому/чему
21. кто/что	издаст	что	
22. кто/что	уволит	кого/что	
23. кто	назначит	кого/что	
24. кто	победит	кого/что	
25. кто	отнимет	кого/что	
26. кто/что	исключит	кого/что	из чего
27. кто	одолеет	кого/что	
28. кто	упразднит	что	
29. кто	преодолеет	кого/что	

4.1.8. Happening verbs (происшествия)

Ten out of thirteen happening verbs do not select for accusative arguments. Five of these ten are prefixed. One is a candidate for being prefixed. Four are not prefixed.

1. кто	**на**солит	---	кому
2. кто	**у**шибется	---	
3. что (*уровень*)	**по**высится	---	
4. кто	**о**шибется	---	
5. кто	**в**скрикнет	---	
6. кто/что	достигнет	---	чего
7. кто	лишится	---	кого/чего
8. кто	очутится	---	где
9. кто	очнется	---	
10. что	рухнет	---	

There are three happening verbs taking accusatives. One is prefixed, the other two are prefix verb candidates.

1. кто   **по**теряет   кого/что

2. кто   *забудет*   кого/что
3. кто   *заметит*   кого/что   // ,что.../,как...

4.2. Summary of the results

The following table summarizes the results of the investigation. Those verb classes whose primary aspectual value is 'imperfective' are shaded grey:

	AkkObj			No AkkObj		
	Prefix	Candidate	No Prefix	Prefix	Candidate	No Prefix
64	18			46		
Relation verbs	6	3	9	12	6	28
120	23			97		
States	2	5	16	9	12	76
158	56			101		
Activities	1	3	52	5	3	93
45	0			45		
Processes	0	0	0	2	0	43
5	0			5		
Culminations	0	0	0	5	0	0
23	19			4		
Accomplishments	17	1	1	3	0	1
40 result-oriented	29			11		
Actions	18	8	3	7	4	0
13	3			10		
Happenings	1	2	0	5	1	4

This is certainly not a well-balanced sample. Note that 158 activity verbs are compared with five culmination verbs. Moreover, the classification traces over large subgroups. There are, for instance, many sound-production verbs (глаголы издавания звуков) like *мычать, мяукать, рыдать* etc. among the activities, and there are many emotion verbs like *волноваться, веселиться, беспокоиться* etc. among the states. Also, the status of prefix candidates is unclear.

We can none the less read a strong tendency from the data: verbs whose primary aspectual value is perfective are almost always prefixed. It is only among happening verbs that this descriptive generalization is not valid.

Verbs whose primary aspectual value is imperfective, however, are more often than not unprefixed. If we exclude states and relation verbs from consideration, this tendency is even remarkably strong. Let us then conclude in form of a working hypothesis to be further pursued: primary perfectives are prefixed, while primary imperfectives (to the exclusion of relation and state verbs) are not.

4.3. Making use of Janda's (1988) verbal argument patterns

This hypothesis could be substantiated, if we were able to find grammatical or semantic reasons to explain the deviant cases. In search of this, I will start a second run through the sample, this time controling for also semantic parameters. Beginning with primary perfectives, I will highlight the semantic roles played by the verbal arguments.

4.3.1. Accomplishments (действия обычные)

To describe the relations among verbs and their arguments I adopt the semantic criterion used by Janda (1988) in connection with Russian prefix verbs: for every prefix verb, the assignment of semantic roles to the verbal arguments follows a certain pattern:

"The verbal arguments are assigned the roles of trajector and landmark according to two specific patterns [...] To elaborate, according to pattern A, which is the dominant pattern, the role of trajector will be played by the subject of the sentence when the verb is intransitive, or by the direct object when the verb is transitive. The opposite endpoint of the landmark in this case will be identified in a prepositional phrase or specified by the context. [...] Pattern B assigns the role of trajector to the subject of a transitive verb, and that of landmark to its direct object." (Janda 1988:339-340).

Janda's example is (TR=trajector, LM=landmark):

(1)   *Я* (TR) *перелечу на другую площадку.*   [pattern A, intransitive]

(2)   *Мы перемешиваем коренья* (TR).   [pattern A, transitive]

(3)   *Мы* (TR) *пересекаем линию фронта* (LM).   [pattern B]

Simply speaking, the trajector is that participant of a situation which is moving, and the landmark is that participant relative to which the movement of the trajector takes place (cf. Langacker 1990:5-12). This characterization suffices as long as verbs describe dynamic scenes. Often, however, verb meanings are dynamic only in some metaphorical sense. Accordingly, the trajector is identifiable only with reference to the involved metaphor (examples to follow). Janda points out that prefix verbs following pattern A correspond to the coding strategy of ergative languages. Kibrik (1992) suggests factitive as a macrorole to integrate the uniformly encoded intransitive subjects and transitive objects in ergative languages:

«В эргативной конструкции такую гиперроль будем назвать Фактитивом [...], которому соответствует значение: "Актант, обозначающий непосредственного, ближайшего, наиболее затрагиваемого участника ситуации".» (Кибрик 1992:192).

I will take trajector and factitive to be two labels for one and the same semantic role on different levels of abstraction. This allows us to integrate those verbs that do not describe dynamic situations in the physical sense. Almost all accomplishment verbs follow pattern A, here illustrated by *нажать*:

(4)   *Коля нажал кнопку* (TR).

(5)   *Коля* (TR) *нажал на кнопку.*

As can be seen, with *нажать*, the meaning of the prefix is redublicatable by a preposition. With other accomplishment verbs like *открыть, расширить, выбить*, etc. this is not possible. None the less, also these verbs follow pattern A. Four accomplishment verbs do not take accusatives. Two out of these are morphologically deviant: *прыгнуть* is characterized by the suffix *-ну-*, and *умыться* by the reflexive postfix *-ся*. I postpone the discussion of these verbs. The intransitive verbs *выстрелить* and *поступить* follow pattern A:

"Intransitive verbs are restricted to pattern A, in which their subjects act as trajectors. This is reasonable, since in a statement made with an intransitive verb only the subject is capable of any movement, be it literal or metaphorical" (Janda 1988:341).

Thus the subject plays the role of the trajector/factitive:

(6)   *Прошлым летом Коля* (TR) *поступил в университет.*

(7)   *Охотник* (TR) *выстрелил в зайчика.*

The factitive in (7) is at the same time the semantic agent. Remember that the factitive is conceived to be a hyperrole (гиперроль):

«В основе такого рода объединений лежит предположение, что наряду с элементарными типовыми ролями Агенса и Пациенса существует также, так сказать, гиперроли - определенным образом мотивированные конгломерации элементарных ролей, сливающиеся в единую роль со своим обобщенным значением.**»** (Кибрик 1992:191-192).

Formally (with respect to its case frame) as well as semantically the verb *выстрелить* contrasts with the verb *застрелить* which follows the transitive pattern A (like *открыть, нажать* etc.). The rabbit takes over the role of the factivive relative to the hunter; it undergoes a change of state. The hunter fulfils the role of the agent:

(8)   *Охотник застрелил зайчика* (TR).

How to analyze the verb *бросить* in lack of any prefix that could deliver information about the semantic roles of the participants? Following Wierzbicka's argumentation, the direct object in (9) and the subject in (10) is the respective trajector/factitive (cf. Wierzbicka 1980:15-22):

(9)   *Коля бросил камни* (TR).

(10)   *Коля* (TR) *бросил камнями в Ивана.*

Wierzbicka refers to Jakobson's (1936) treatment of the verb *швырять <камни* or *камнями>*. She writes:

"It is interesting to note that verbs and verbal phrases which imply a change of state in the object can never take an instrumental object: **Ivan švyrnul kamnem v vodu.*" (Wierzbicka 1980:19).

If a thing undergoes a change of state, this witnesses that it is a substantial participant of the situation, which in turn requires that it be coded as a direct object (as this is the syntactic position of the factitive).[7] Pattern B (subject:trajector, object: landmark) does not show up in the list of accomplishment verbs. This is by chance: Janda names, among others, the following verbs: *перейти (улицу); переждать (обстрел); переболеть (лихорадку); перепить (кого); перехитрить (кого); пересекать (линию фронта); перерубить (что)*.

4.3.2. Culminations (процессы предельные)

As far as culmination verbs are concerned, it can be observed that all five prefix verbs (*растаять, созреть, высохнуть, увянуть, заржаветь*) code the respective situation according to the intransitive version of pattern A: the subject takes over the role of the factitive.

4.3.3. Result-oriented actions (действия с акцентом на результате)

The situations described by the 11 result-oriented action verbs without accusative objects all contain only one participant. Accordingly, this participant must play the factitive role (наиболее затрагиваемый участник ситуации). For illustration, consider:

(11) *Поезд опоздал на полчаса.*

(12) *Голос отказался служить мне.*

---

[7] Compare Jakobson's characterization of the accusative: "The accusative always indicates that some action to some extent affects, is directed at, or is manifested on, the stated entity" (Jakobson 1936/1984:66).

Among the 29 verbs of this group that do take accusatives we find both strategies of assigning semantic roles to subject and object. Pattern A (subject: agent, object: factitive) is instantiated by the prefix verbs *приговорить, отозвать, распустить, включить, зачислить, отложить, переименовать, присвоить, осудить, привлечь*, as well as by the prefix verb candidates *уволить, назначить, отнять, исключить, издать, предоставить*. Pattern B (subject: trajector; object: landmark) is instantiated by *пересилить, выиграть, обогнать, догнать, найти, догадаться*. Verbs prefixed by *по-* like *пообещать, потребовать, победить* and *покинуть* escape a clear-cut classification. The three verbs that lack systematic prefixes (*одолеть, преодолеть, упразднить*) pattern according to strategy A, as does the accomplishment verb *бросить*.

4.3.4. Happenings (происшествия)

Of the happenings, the six prefix or prefix candidate verbs that do not take accusative objects *ушибиться, насолить, повыситься, ошибиться, вскрикнуть, достигнуть* follow pattern A (intrans.). The four happening verbs that do not have a prefix likewise pair the subject position with the factitive role. In three cases we observe the postfix *-ся*. Only one of these verbs can plausibly be viewed as a detransitive, which derives from the same verb form without *-ся* (*лишиться < лишить*). This analysis is implausible for *очутиться* and *очнуться* because there are no verbs **очутить* or **очнуть* in Russian (on the detransitivizing function of *-ся* compare Mehlig 1999:202-204). Similarly, we cannot argue that the verb *рухнуть* derives from a morphological rule infixing *-ну-*, because there is no verb **рухать*.

How about the three happening verbs with accusative objects? Here it is the participant that "moves" in the sense that it appears or disappears from scene, be it physically (*потерять*) or mentally (*заметить, забыть*), which is coded as the direct object. Unlike situations described by action verbs, happenings are uncontrolled events (cf. Падучева 1996:107). Let us therefore note that the subject is the non-agent and the object is the factitive/trajector.

4.4. Systemizing the observations by the diathesis model

In this section, I systemize the above made observations by means of Paducheva's diathesis model:

"[D]iathesis is understood, in our system, as the set of semantic roles assigned to the arguments of a lexeme, with a communicative rank assigned to each of them"
(Paducheva 1998:356).

The starting point will be the participants of a situation. Every situation has at least one participant. So there are one-participant situations, two-participant situations etc. In general, a situation participant can play an active or a passive role. The hunter in *Охотник выстрелил в зайчика* is an active participant. Kolya in *Коля забыл свою сумку* is a non-active, i.e. passive, participant. Importantly, however, the very same Kolya could play an active role in other contexts. In this respect, Kolya contrasts with the bucket in *Ведро вмещает три литра*; as a non-intentional being, the bucket is incapable of playing an active role (except for in fairy tale situations). I will use 'theme' as a label for participants that are doomed to be passive. Aktive participants will be called 'actives', passive participants (that are not themes) will be called 'inactives'.

When it comes to describe a situation by a sentence, only a subset of the things involved in the real situation are linguistically expressed. Plausibly enough, each linguistically expressed participant will be realized within a syntactic position in its own right. A simplified theory can do with three syntactic positions: subject, direct object, and indirect object. These syntactic positions form a hierachy: subject > direct object > indirect object. Moreover, the syntactic positions are associated with pragmatic functions, called 'communicative ranks'. Both the subject and the direct object are central communicative ranks, whereas the indirect object is a peripheral rank (cf. Paducheva 1998:350).

The overall linguistic structure of a sentence results from the interplay of three structural layers: the semantic structure, the syntactic structure and the communicative-pragmatic structure. The possible values at each of these structures are hierachically ordered: the top value at the semantic layer is the active participant (agent), the top value at the syntactic layer is the subject, and the top value at the communicative layer is the trajector/factitive. Following Mehlig (1996), I will from now on use the term 'transformative' (=TR) to refer to this communicative role. The interaction of syntax and semantics is constrained by the following rule: The more active participant must not occupy a lower syntactic position

than the less active participant[8]. As far as the interaction of the communicative layer and the semantic layer is concerned, the following holds: As long as there are potentially active participants involved in the situation, one of these (and no theme) will be the transformative. Finally, the interaction of the communicative layer and the syntactic layer is subject to the following constraint: the transformative must always be realized in a syntactic position of central communicative relevance, i.e. either as the subject, or as the direct object.

In the neutral case, the subject will count as the pragmatically most relevant position taking on the role of the transformative (pattern A intransitive; pattern B). This neutral condition is abrogated, however, when the verbal predicate of the sentence is prefixed: in a transitive sentence with two potentially active participants and a prefix verb, it is the participant in direct object position that plays the role of the transformative (pattern A transitive).

We can now represent the primary perfective verbs that we considered above. The transformative is underlined. The numbers in brackets refer to the verb class according to Padučeva (recall 2.1.).

One-participant-situations:

Subj	DirObj	PerphObj	
active			*умыться* (4)
inactive			*растаять* (7), *ушибиться* (8)
active	theme		*перейти*

Two-participant-situations:

Subj	DirObj	PerphObj	
active	inactive		*застрелить, открыть* (4), *включить* (5)
active		inactive	*выстрелить, поступить* (both 4)
active	inactive		*обогнать* (5)
inactive	inactive		*потерять, забыть* (both 8)

So far we only looked at verbs whose primary aspectual value is perfective. How about primary imperfectives?

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[8] Passivization is no contradiction to this because passivization operates on top of this rule. The passive construction signals that the rule is turned upside down.

4.4.1. Atelic processes (процессы непредельные)

All atelic process verbs conceptualize situations as one-participant-situations. Ten out of 45 end in the postfix -ся, e.g. *крутиться* (in the sense of 'to spin round'), *двигаться* etc. Using the diathesis model, we can represent atelic process verbs as [inactive;   ;   ].[9] In accordance with this, Padučeva calls these verbs "непредельные инактивные процессы" (Падучева 1996:141). Two verbs of this class are prefixed (*разрушаться, развеваться*).

4.4.2. Activities (деятельности), without accusative object

Activity verbs that lack an accusative object likewise conceptualize situations as involving only one participant. Two verbs bear a prefix (*рассуждать, загорать*). Many of these activity verbs bear the postfix -ся, e.g. the verb *крутиться*, this time in the sense of 'to swing round'. Often, an indirect object is realized. But even if the indirect object denotes a person, e.g. in *сражаться с кем-то*, this person is doomed to play the semantic role theme because the indirect object is of non-central communicative relevance. The person remains, so to speak, "off stage" (cf. Langacker 1990:209-210). In sum, activity verbs that lack an accusative object either form the diathesis [active;   ;   ], or the diathesis [active;   ; theme].[10]

4.4.3. Activities (деятельности), with accusative object

The list of 56 activity verbs that take accusative objects can be devided into two classes: members of the first group obligatorily select for accusatives, members of the second group can also be realized without an accusative object (this is the class of pseudointransitives, recall 3.3.)[11]. The only prefix verb of this group, *обсуждать*, necessarily requires an accusative object. The three prefix verb candidates (*учить, наблюдать, вращать*), by contrast, belong to the pseudointransitives.

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[9] The three boxes demarkated by the semicolons within the square brackets symbolize the syntactic positions from left to right [subject; direct object; indirect object].

[10] As noted elsewhere, one might want to assign dative objects a higher rank ("on stage"). I have to leave this as an open question.

[11] The native speakers that I consulted sorted 23 verbs as obligatorily and 33 as optionally taking accusatives. Two cases were unclear: *катать, критиковать*. I more or less randomly included both into the former group.

The following two sentences can describe the very same real situation (see also Klein 1995:681):

(13)   *Коля красит.*

(14)   *Коля красит двери своей дачи.*

The direct object can thus be dropped. I take this to be an argument in favor of the claim that the accusative argument is not a (potentially active) central participant of the described situation. That is to say, it plays the role of a theme. Depending on whether or not pseudointransitives realize the accusative object, they should accordingly be represented as [active; theme;   ] or [active;   ;   ]. In addition, there are those that also fill the indirect object position.

The 23 activity verbs that must be [active; inactive;   ] are: *обсуждать, долбить, драть, есть, бить, бомбардировать, колоть, лизать, критиковать, лить, месить, мести, метать, молить, печь, преследовать, пытать, регулировать, резать, рубить, катать, сыпать, штурмовать.*

4.4.4. States (состояния ингерентные)

State verbs express non-dynamic situations (cf. Падучева 1996:107, see also Князев 1989). The semantic feature "dynamicity" can be defined as follows:

«Хуже других отражается в сочетаемости признак "динамичность". Большей различительной силой обладает признак, который можно рассматривать как его следствие, а именно, признак "затрата энергии". В нормальном случае динамическая ситуация требует затраты энергии для своего поддержания, в отличие от статической, продолжение которой не требует приложения усилий: состояние длится, пока не прозойдет нечто вовне, что его изменит. Динамичное по своей внеязыковой природе состояние язык может представлять как не имеющее перспективы, ср. *болеть.*» (Падучева 1996:128).

We can reflect this property of state verbs at the layer of semantic roles. However appropriate the above given definition of dynamicity, one thing is for sure: the participants involved in a state are passive. State participants stand beyond the activity criterion that

we used in order to class the participants of dynamic situations as active or inactive. In the case of state verbs, we thus have to modify the diathesis model slightly: when framed in a state, potentially active participants grow stiff in the role of a theme.

It should ne noted that, at the syntactic surface, sentences denoting states do not differ from sentences denoting dynamic situations:

(15)   *Он любит ее.*

(16)   *Он ласкает ее.*

This is why, as noted above in section 3.4, certain state verbs can be used as activity verbs. Formally, state constructions can also equal sentences denoting actions:

(17)   *Охотник выглядел как сумасшедший.*

(18)   *Охотник выстрелил как сумасшедший.*

Zaliznjak & Šmelev consider state verbs such as *выглядеть, подлежать* and *надлежать* to be loan words "с разных западных языков", which refuse the Russian morhological rule according to which prefixation yields perfectivization (cf. Зализняк & Шмелев 1997:68). As an alternative to this view, we could speculate that the respective lexical elements once underwent a semantic change, thereby shifting into the conceptual space "stative situation" within which the morphological rule is not valid. Foreshadowing my final conclusions, I suggest that the Russian prefixation rule is defined for dynamic situations only. States thus form two kinds of diatheses: either [theme;   ;   ], or [theme; theme;   ]. In addition, there the two versions having the indirect object position filled.

4.4.5. Relations (вневременные свойства\соотношения)

Unlike events and states, relations are not located in time; see Падучева (1996:131) on how to distinguish relations from states on grammatical grounds. To represent this in the diathesis model, I propose that the verbal arguments involved in a relation do not possess the status of participants. In other words, the rule according to which every situation has at least one participant is out of force in the case of relations. Alternatively, one might say

that relations are not situations. At least formally, however, they often pattern on a par with situation denoting structures:

(19)   *Мы пересекаем линию фронта.*

(20)   *Линия А пересекает линию В.*

As in (20), atemporal relation verbs are often prefixed. In the list, we find 37 non-prefixed verbs and 27 prefix and prefix candidate verbs. Many of the latter are analyzed as loan words by Zaliznjak & Šmelev (*содержать, обстоять, зависеть, состоять*, among others). Relations are expressed not only by verbs, but typically also by copular constructions:

(21)   *Пушкин был великий поэт.*

Copular sentences can express atemporal relations, as in (21)[12], but also temporally localized states. Russian has at its disposal morphological means to distinguish these two functions: instrumental case is used to express a situation/state (cf. Geist 1999):

(22)   *Пушкин был великим поэтом.*

Compare the relation expressed in (23), where Pushkin is, like in (21), conceptualized as an entity which is not even potentially active, namely as a member of a "*число*":

(23)   *Пушкин относится к числу самых великих поэтов.*

Arguments of relation-denoting verbs can accordingly only be themes. This means that relation verbs yield the same representations as state verbs. In other words, the diathesis model is not capable of distinguishing between these two predicate classes. It is designed to cope with situations only.

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[12] The time period prior to the moment of speech that the past tense in (21) refers to is not the relation signified by the predicate, but rather the lifetime of Pushkin.

4.5. Summary

Primary imperfectives can be sorted into seven diathesis types. As a rule, there can be at most one potentially active participant. If present this participant is profiled on all three structural layers; it plays the highest semantic role, it occupies the subject position, and it serves as the transformative.

Primary imperfektives:

[inactive; ;] *крутиться, плыть, кипеть* (each 6)

[active; ;] *крутиться, играть, плакать, красить* (each 3)

[active; theme ;] *красить <дверь>, удить <золотую рыбку>* (each 3)

[theme; ;] *вонять, болеть* (both 2)

[theme; ;] *<собака> кусаться* (1)

[theme; theme ;] *любить <кого-то>* (2)

[theme; theme ;] *вмещать <три литра>* (1)

Primary perfective verbs describe situations involving two participants. They can be sorted into four diathesis types that I will discuss one after the other:

Type 1: [active; inactive;] *застрелить, открыть* (4), *включить* (5)

This is the prototypical case for prefix verbs ("the dominant pattern"). The participant coded as subject semantically corresponds to the active initiator of the situation. The second participant, which sits in direct object position, plays a leading part too because it serves as the transformative. Both participants act under the semantic umbrella of the prefix (cf. Janda 1988).

Type 2: [active; ; inactive] *выстрелить, поступить* (both 4)

Type 2 is rare. It can be described in the following way: the second participant, which normally occupies the direct object position, is demoted to a lower position in the syntactic hierachy. As a consequence of that, it is no longer of central communicative relevance. Its place is, so to speak, backstage. Despite the fact that there are actually two

potentially active participants, the situation is virtually conceptualized as a one-participant-situation.

Type 3:   [active; theme ;   ] *обогнать* (5)

Type 3 corresponds to Janda's pattern B. Sentences instantiating this type are syntactically transitive, but the direct object argument is conceptualized as the theme (in Janda's system: landmark). Therefore, the description of the situation involves only one potentially active participant, coded as subject. In contrast to type 1, only the subject participant can act under the umbrella of the prefix (because the referent of the direct object cannot act at all). One could say that this type conceptualizes a one-participant situation as if it involved two potentially active participants.

Type 4:   [inactive; inactive;   ] *потерять, забыть* (both 8)

This type is actually a version of type 1. Unlike with type 1, however, the subject participant is like the direct object participant inactive. As there are two potentially active participants, the second participant can take over the role of the transformative as required by the semantics of the prefix.

Besides these, there are still those primary perfective verbs that describe situations with only one participant:

        [active;   ;   ] *умыться* (4)

These situation descriptions, here exemplified by *умыться*, can be viewed as derivations of type 1, specifically as reflexivizations: one participant at the same time plays the two roles, active and inactive, that are required by the semantics of the prefix verb. Reflexivity is formally expressed by the postfix *-ся*. Such an analyzis is supported by the existence of the Russian verb *умыть* of type 1 (cf. Mehlig 1999:202-204). It is not always possible, however, to find an unprefixed origin for a prefixed reflexive.

[active; theme;   ]   *перейти <улицу>*

This is a version of type 3. An element which is typically coded as an indirect object (*переплыть через реку, перелезть через забор,...*), is promoted to a position of central communicative relevance. As this does not change its meaning, it remains an element of the "setting" (cf. Langacker 1990:230-234) and plays the role of the landmark or theme, respectively. Therefore, it cannot fall under the scope of the prefix, which accordingly assigns the transformative role to the subject argument.

[inactive;   ;   ]   *растаять* (7)*,   ушибиться* (8)

Arguably, this again describes a reflexive situation. As for *ушибиться*, we can argue not only semantically (cf. German: *Ich habe **mir** den Fuß verstaucht*), but also formally in the face of the overt reflexive marker *-ся*. The underlying verb would then be *ушибить*. Telic culminations in general do not come with *-ся*. Semantically, however, we can easily convince ourselves that the verbs *растаять, созреть, высохнуть, увянуть* and *заржаветь* describe situations in which one entity is active and inactive at the same time. Significant for these verbs is also that the range of possible subjects is lexically restricted to a handful of things. For *растаять*, this is usually snow or ice, for *увянуть* it is plants etc. So my conclusion is that these cases represent a small group of verbs that escape the regular word formation rules of Russian. They are lexicalized reflexives.

4.6. Conclusions about semantic transitivity

We arrive at the following generalization: primary perfective verbs describe two-participant situations, whereas primary imperfective verbs describe one-participant situations. If a verb denotes a situation in which the the two participants are referentially identical, the verb is reflexive. In the unmarked case, two participants are coded as subject and direct object. If there is only one participant, it will be the syntactic subject. Elements of the situational background (setting) are usually coded as indirect objects.

It is possible to from derivations of these unmarked construction types. One important option is to promote an element of the setting to an entity of central relevance by realizing it in the direct object position. This was the case of pseudointransitives: the meaning of

the sentence *Коля красит дверь* can be described as an originally one-participant situation (there is only one possibly active participant) that is conceptualized as two-participant situation.

It appears reasonable to distinguish between syntactic and semantic transitivity. Basically, two-participant situations are semantically transitive, and one-participant situations are semantically intransitive. There are, however, deviations from this default: Syntactic intransitive constructions can not only be used to express semantically intransitive concepts, but also to express semantically transitive concepts. One example is type 2, where the second participant of the situation is demoted to the setting. Another example is the case of reflexives where the two situational participants are co-referential and, accordingly, both realized in one argument expression. Syntactic transitive constructions consist of subject and direct object. If they realize semantically transitive situations, both subject and object are (potentially active) participants. Sometimes, syntactic transitive constructions realize semantically intransitive situations. We saw this in type 3, the case we called with Mehlig pseudointransitives.

Given that primary perfectives are almost always prefixed and that they always describe semantically transitive situations, we can conclude that the semantics of a Russian verbal prefix consists in spanning a conceptual space of two participants. (System) prefixes thus require semantically transitive situations. This result is reminiscent of the conclusion that Krongauz arrived at:

«Приставка задает основную семантическую рамку, в которую встраиваются и актанты, и бесприставочный глагол.» (Кронгауз 1998:243).

There are minor differences, however. While I concluded that the semantics of the prefix selects for *one* situation with two central participants, Krongauz concluded that the semantics of the prefix selects for a scenario involving *two* situations:

«Итак, значению приставки соответствует динамическая ситуация, состоящая из начальной и конечной ситуаций [...] В заключение можно сформулировать "сценарную гипотезу" по поводу префиксации в русском языке. [...] Сценарии - это языковые заготовки, или, как уже говорилось, семантические шаблоны, и

говорящий вынужден выбирать шаблон, наиболее подходящий для выражения того, что он хочет сказать. Каждая приставка предоставляет набор возможностей развития или выражения интенции говорящего.» (Кронгауз 1998:244).

The two theories can be integrated into one if semantic transitivity is viewed as the "transfer of energy" from one participant to the other (cf. Langacker 1990:209-260). A transfer of energy is tantamount to a situational change (remember Padučeva's definition of dynamicity from section 4.4.4.), so that one can describe the change of a situation by describing the initial state and the consequent state of the situation. This is the strategy followed by W. Klein (1998) who classifies verbal lexemes according to how many states the situation denoted by the verb involves: "0-state-contents" (or atemporal contents) correspond to Padučeva's relations, "1-state-contents" correspond to states, activities and culminations, "2-state-contents" correspond to accomplishments, result-oriented actions and happenings. (the numbers in the second row of the following table refer to Padučeva's T-categories from section 3.5.):

Conceptual Space "Situation"							
8	5	4	7	6	3	2	1
2-state-content				1-state-content			0-state-content
Grammatic Space "Perfective"				Grammatic Space "Imperfective"			
Perfective Verbstem				Imperfective Verbstem			

In the terminology ot the present paper, 1-state-contents are concepts of one-participant situations (intransitive concepts). 2-state-contents are concepts of two-participant situations (transitive concepts). I said that prefixes span two-participant situations, in Klein (1995) this very same insight reads as follows:

"In Russian, morphological variation of a simple verb is quite common. It is plausible, therefore, to relate this variation to the difference between 1-state contents and 2-state

contents. The basic rules of lexical content correspond to the rules [...]. Simple verbs express 1-state contents. Prefixation results in a 2-state content." (Klein 1995:684-685).

5. The inflectional category of aspect

5.1. Grammatical aspect (вид)

To say that the Russian grammar includes the verbal category of (perfective or imperfective) aspect is to say that every Russian verbform refers to a well-defined zone within a (two-way partitioned) grammatical space. In other words, every verbform fills a box within a binary aspectual paradigm. The two verbforms that fill the two boxes of a paradigm are said to form an "aspectual pair":

Grammatical space "Aspect"	
Grammatical zone "Perfective"	Grammatical zone "Imperfective"
Verb 1	Verb 2

As verb 1 and verb 2 partition the same grammatical space (cf. McCreight & Chvany 1991:94), they must be two forms of one and the same lexeme, which means that they share the same lexical meaning. Thus, the assumption is that Russian grammaticalized an inflectional paradigm of the following kind ("verbform" is shorthand for "word form of a verbal lexeme"):

Grammatical zone "Perfective"	Grammatical zone "Imperfective"
Verbform a	Verbform b

In what sort of semantic opposition do the two verbforms stand toward each other? In this paper I subscribe to the point of view according to which inflectional aspect (grammatical aspect) operates on top of classificational aspect (lexical aspect). This implies that the underlying aspectual classes define the meanings of the respective inflectional verbforms. In what follows, I will adhere to W. Klein's (Klein 1995) terminology. The aspectually relevant conceptual spaces are accordingly referred to as 0-state contents, 1-state contents

or 2-state contents. W. Klein analyzes grammatical aspect as the expression of a certain relation among times. In particular, grammatical aspect signifies the temporal relation between the time at which the situation takes place (situation time) and the time of which an assertion is made (assertion time). Given the classification into 0-state-situations (relations), 1-state-situations and 2-state-situations, we can state the following:

A perfective verbform signals that the situation described by the verbal lexeme is conceptualized in such a way that the assertion time overlaps with the initial state time and the consequent state time. An imperfective verform, by contrast, signals that the situation is conceptualized such that the assertion time overlaps initial state time, but not the consequent state time.[13]

The one and only state of a 1-state-situations is treated on a par with the initial state of a 2-state-situation, which means that 1-state-situations are expressed by imperfective verbforms. Perfective verbforms cannot be used to express 1-state-situations because they presuppose the existence of two states (cf. Klein 1995:689). None the less, imperfective verbforms can denote two-state-situations, but only within the conceptual space of iteration. I will soon come back to this.

And so, every Russian verbform refers to one side of a two-way partitioned conceptual space. Primary verbs – "verbs of primary T-categories" (Падучева 1996) or "alpha-verbs" (Lehmann 1999b) – are semantically predetermined as to their belonging to one of these two sides. The following table shows representatives of the eight aspectual categories and their primary aspectual value:

”Perfective”	”Imperfective”
8 *лишиться*	
7 *растаять*	

---

[13] Compare Comrie's (1976) statement according to which aspectual distinctions are ”different ways of viewing the internal temporal constituency of a situation”.

		6	*кипеть*
5	*найти*		
4	*открыть*		
		3	*гулять*
		2	*болеть*
		1	*вмещать*

In this way, the first box of an aspectual paradigm is filled by semantic assignment according to lexical aspect. The second box, which is still empty in the above table, will be filled by a grammatical rule. Generally speaking, this grammatical rule maps verbal concepts from 2-state-situations to "non-2-state-situations" or "non-2-state-situations" to 2-state-situations, respectively. Making use of Klein's inventory of times, we can put it as follows:

Grammatical imperfectivization rule:

"Map a perfective verb X (8: *лишиться,* 7: *растаять,* 5: *найти,* 4: *открыть*) onto a verb Y such that Y describes the same situation as does X, differing from X only in that the assertion time overlaps only the initial state time and not the consequent state time!"

Grammatical perfectivization rule:

"Map an imperfective verb X (6: *кипеть,* 3: *гулять,* 2: *болеть,* 1: *вмещать*) onto a verb Y such that Y describes the same situation as does X, differing from X only in that the assertion time overlaps not only with the initial state time but also the consequent state time!"

Note that the perfectivization rule amounts to a mismatch because the situation described by primary imperfectives, by definition, does not involve a change of state, as the rule presupposes. Therefore, for the perfectivization rule to apply, the "non-2-state-situation

concept" associated with the imperfective verbform must be coerced to the required 2-state-situation frame. Depending on the way this conflict can or cannot be resolved, there will be different types of aspectual pairs.

5.2. Types of aspectual pairs

5.2.1. Imperfektiva tantum

As noted above, there will be a conflict if the content of an imperfective verbform does not meet the input conditions of the perfectivization rule. If this conflict cannot be resolved, there result will be a defective paradigm. The verbform will be an imperfektivum tantum. Four of the eight examples from Padučeva-Beispiele are imperfektiva tantum by virtue of the fact that they describe 1-state-situations, i.e. that they do not consist of an initial and a consequent state. It is for trivial reasons impossible that the assertion time overlaps with the initial state and the consequent state of the situation if there are no such states:

$\varnothing$	3	*гулять*

$\varnothing$	1	*вмещать*

| $\varnothing$	2	*болеть*

$\varnothing$	6	*кипеть*

5.2.2. Trivial pairs (тривиальные пары)

The verb *найти* describes a 2-state-situation, which makes it a primary perfective verbform. To form its imperfective counterpart, we first have to isolate the initial state from the consequent state and then make an assertion that is valid during the initial state time but not during the consequent state time. The problem is that this is just impossible: the lexical concept of *найти* is such that the initial and the consequent state must overlap. The state-of-affairs immediately antecedent to what we can call a finding is not describable as a finding but rather as a seeking. The situation of finding something begins with the change from a situation of seeking something to a situation of having found something. In other words, the moment of finding is the beginning of the finding. This is

the lexical peculiarity of so-called achievement verbs (cf. Vendler 1967). It renders it impossible that an assertion is made of the initial state time to the exclusion of the consequent state time. Therefore, there prima facie can be no imperfective partner of the verb *найти* in the imperfective base meaning:
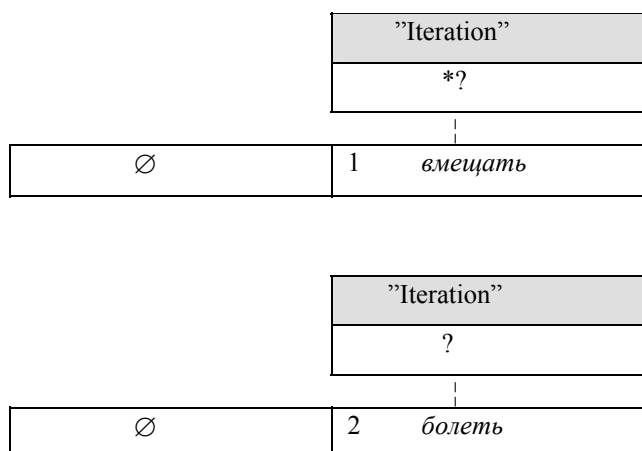
5	*найти*	$\varnothing$

None the less, there is the possibility to form an imperfective counterpart verbform of *найти*. This is possible because the Russian grammar allows for converting a basic imperfective verbform into another imperfective verbform which expresses the pluralization (or: iteration) of the initial verbal concept. This kind of conversion (zero derivation) amounts to a transposition of the primarily described 1-state-situation into a plurality of such 1-state situation, the latter being subsequently located at the time axis. The following schemata are supposed to represent this process for the two primary imperfectives *гулять* and *кипеть*:

"Iteration"
гулять

$\varnothing$	3	*гулять*

"Iteration"
кипеть

$\varnothing$	6	*кипеть*
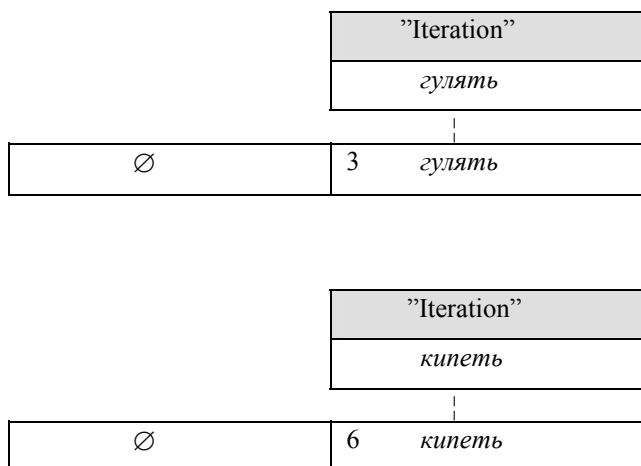
States cannot be pluralized, presumably because they typically express long-lasting situations, which rules out the subsequent location at the time axis. Note, however, that a pluralization of a state concept is possible if the state is reinterpreted as an activity

beforehand. Above we saw the case of the state verb *любить* turning into the homophone activity verb *любить* (cf. section 3.4., see also Падучева 1996:139):

"Iteration"	
*?	

∅	1	*вмещать*

"Iteration"	
?	

∅	2	*болеть*

Even though there is no "simple", i.e. non-iterated, imperfective counterpart of the verbform *найти*, it is possible to form a pluralized imperfective version. All of the relevant information for this kind of conceptualization are available: we know, first of all, the situation denoted by the perfective base form and we know, secondly, how to pluralize a situation. So we can pluralize. As a result, we assert that a "macrosituation" which consists of many 2-state-"microsituations" is holding. The internal structure of the kind of microsituation involved is no longer relevant, i.e. neutralized.

This is the basis for the so-called Maslovian criterion for identifying aspectual pairs:

«Итак, видовая коррелативность имеет место тогда и только тогда, когда глагол несов. вида может обозначать то же самое событие, что и глагол сов. вида. А чтобы установить этот факт, надо применить критерий Маслова, т.е. посмотреть, может ли данный глагол НСВ заменять глагол СВ при описании повторяющегося события и при повествовании в praesens historicum» (Зализняк & Шмелев 1997:42-43).

"Iteration"	
находить	
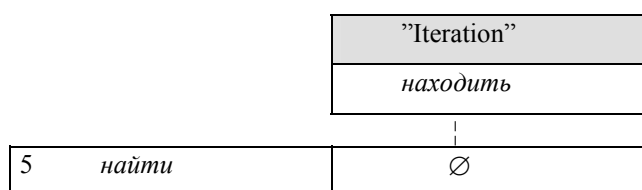
5	*найти*	∅

From the rule of conversion it follows that the iterated verbform is formally identical to the imperfective base verb. The two forms *найти* and *находить* are accordingly re-recognized by aspectologists as an aspectual pair. Zaliznjak & Šmelev speak of " trivial pairs" (тривиальные пары). Other examples for trivial pairs are *прийти-приходить* or *достичь-достигать* (cf. Зализняк & Шмелев 1997:48). Another example is *лишиться-лишаться*:

		”Iteration”
		лишаться
8	*лишиться*	∅
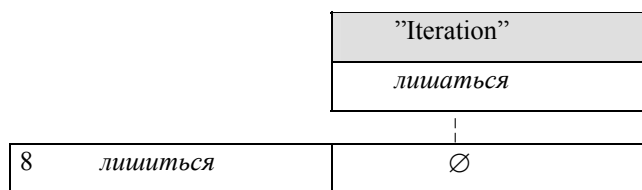
«Очевидно, что никаких семантических препятствий для существования формы несов. вида, выражающей значение многократного повторения того, что названо глаголом сов. вида, быть не может.» (Зализняк & Шмелев 1997:74).

5.3.3. Perfektiva tantum

So there can be no "obstacles" for the existence of appropriate pluralized verbal meanings, but it seems that there can be obstacles for the existence of appropriate plural verbal forms! An imperfective form for *найти* can easily be formed on analogy to a pair like *уйти-уходить*. Similarly, the imperfective verb *лишаться* can be formed on analogy to a pair like *решить-решать*. In other cases, however, there is no obvious model for constructing the imperfective form.

Perfektive verbs for which no imperfective form can be found are *очнуться, очутиться,* or *рухнуть,* that is exactly those untypical (from the perspective of Russian morphology) perfectives that lack a prefix. It should be noted, however, that, if unavoidable, imperfectives can be found:

«[Д]ля глаголов perfektiva tantum отсутствие видового коррелята есть не что иное, как отсутствие употребительной формы для выражения соответствующего смысла. При необходимости выразить этот смысл, может быть создана и форма (хотя

отсутствующая в узусе, но виртуально присутствующая в системе.[...] Если такого рода употребление входит в узус, то возникает видовая пара» (Зализняк & Шмелев 1997:75).

A "master of words" may use, for instance, the form *очунаться* as an imperfective version of *очнуться* (for more examples, see Зализняк & Шмелев 1997:74-75).

| ”Iteration”	
(*очунаться*)	
очнуться	∅
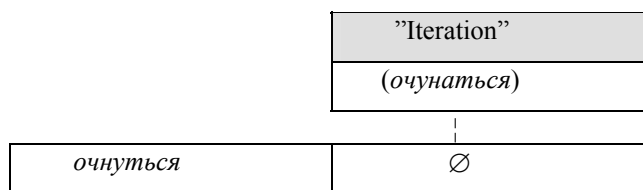
5.2.4. Iterativa

Some verbal concepts are lexicalized in the conceptual plurality space: *махать, прыгать, чокаться*, among others. Being pluralized, these verbs stand beyond the aspectual opposition. As pluralized verbs receive the aspectual value 'imperfective' by default, these verbs can be viewed as imperfectiva tantum.

In this respect, compare the typological perspective on aspect as taken on by Plungjan. According to Plungjan, the conceptual space of aspect consists of different semantic zones chosen from a universal catalogue of meanings. Russian brings together three meanings of this catalogue (iterative, habitualis, durative) under the one imperfective construction (cf. Плунгян 1997, 1998:373).

In the domain of Russian nominals, individual concepts can be derived from mass concepts and collectives by morphological means: *картофелина* derives from *картофель, градина* derives from *град* etc. (cf. Gladrow 1998:27). This process has its counterpart in the verbal domain (cf. Mehlig 1996:96-98): from lexically iterative verbs like *махать, прыгать, чокаться* etc., it is possible to morphologically derive singular verbs (more precisely, verbs expressing singular situations): *махнуть, прыгнуть, чокнуться*. This operation implies a change in the aspectual value: while *махать* is by convention imperfective, *махнуть* is perfective, not by convention but on the basis of its semantic structure – *махнуть* is a 2-state-situation after all.

5.2.5. "Bounded" pairs (предельные пары)

There is no problem in applying the imperfectivization rule to accomplishment verbs (действия обычные 4) and culmination verbs (процессы предельные 7):

”Iteration”
открывать

4	*открыть*	*открывать*

”Iteration”
таять

7	*растаять*	*таять*
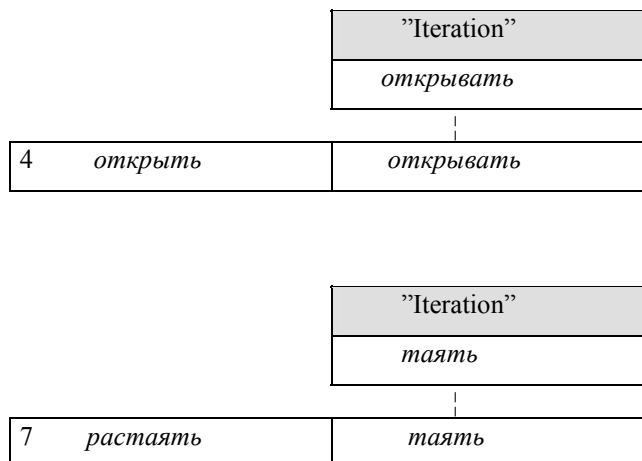
These verbs describe 2-state-situations such that both the initial state and the consequent state extend over time. This renders it possible to make an assertion true of only one of these states. This yields the typical case of an aspectual pair, usually called "bounded pair" (предельная пара). Other examples are *строить-построить, записывать-записать, решать-решить* etc. (cf. Зализняк & Шмелев 1997:49, Падучева 1996:94).

5.2.6. Perfectic pairs (перфектные пары)

Furthermore, there is a group of verbal lexemes forming so-called perfectic pairs:

«Для глагола СВ лексической предпосылкой вхождения в перфектную пару является наличие в его толковании инцептивного компонента: глагол СВ должен обозначать начало того состояния, которое выражается парным глаголом НСВ. Например: *X увидел* = 'началось состояние: X видит' » (Падучева 1996:155).

These verbal concepts correspond to 2-state-situations in which the initial state and the consequent state partially overlap: the initial state constitutes the beginning (”начало”) of the consequent state. As a consequence of that, it is impossible to assert something which is valid only for the initial state time. I suppose that perfectic aspectual pairs derive from

verbs denoting 1-state-situations. For example, *видеть* denotes a 1-state-situation. This implies that it can only realize an imperfective meaning:

”Iteration”
видеть
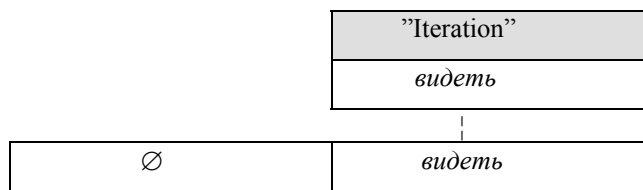
∅	*видеть*

If there is need to express a 2-state-situation on the basis of a 1-situation-verb like *видеть*, such a concept can be derived in Russian by word formation rules. Specifically, this can be achieved by attaching one of 19 system prefixes to the verb stem. The semantics of the prefix then sets the conditions to which the verbal concept must adapt.

Since derived forms stand in privative opposition to their base form, this shift yields a lexeme different from the initial one. Theoretically, the speaker of Russian can choose among 19 "functional aspectual partners" (Lehmann 1988:177) for the imperfective base verb. In practice, however, many of the 19 prefixes are ruled out for semantic reasons. In the typical case, the speaker can none the less choose among several prefixes. The one that best suits the speaker's communicative needs will be chosen. The prefix verb that comes closest to the lexical meaning of the imperfective verb may then be reanalyzed as the perfective aspectual partner.

In the case of *видеть*, this is the prefix *у-*. The meanings of the verbs *видеть* and *увидеть* roughly correspond to the two German verbs 'sehen' (1-state-content) and 'erblicken' (2-state-content).

”2-state-situation”
увидеть

∅	*видеть*
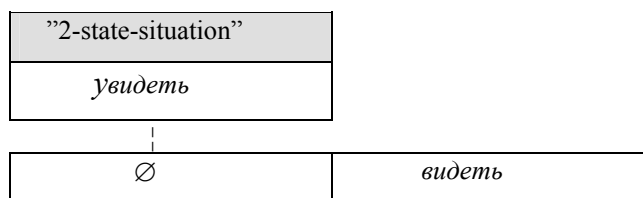
In perfectic aspectual pairs, the initial state of the resulting 2-state-situation maps the one state of the underlying 1-state-situation. Examples are *услышать-слышать, поверить-верить, обрадовать(ся)-радовать(ся)* etc.

Besides these, there is a number of perfectic pairs that do not involve prefixation: *ощутить-ощущать, огорчить(ся)-огорчать(ся), удивить(ся)-удивлять(ся), узнать-узнавать* (Зализняк & Шмелев 1997:49). In these cases, the base form is not the imperfective verb, but the perfective verb which describes an achivement. As discussed above in connection with *найти*, achievements describe 2-state-situations in which the initial state temporally overlaps the consequent state, constituting its beginning. The situation time of *найти* consists of the moment of finding something plus the subsequent period of knowing where this something is. The situation time of *удивиться* consists of the moment of perceiving something plus the subsequent period of noticing the emotional impact of this perception. It is the nature of the consequent state in which "emotion verbs" like *удивиться, огорчиться, возмутиться* etc. differ from each other semantically (the lexeme *ощутить* can be viewed as a hyperonym of these verbs):

   situation (*удивиться*) = moment of perception, state of being astonished

   situation (*огорчиться*) = moment of perception, state of sorrow

   situation (*возмутиться*) = moment of perception, state of indignation

   situation (*обидеться*) = moment of perception, state of being offended

   situation (*оскорбиться*) = moment of perception, state of being hurt in one's pride

These achivements pattern like *найти*: it is impossible to make an assertion that exclusively relates to the initial state and, as a consequence of that, the imperfective verbform cannot be used to inform of the same situation type as the perfective verbform does. As usual (see the discussion of trivial pairs above), the imperfective can be used to express an iteration of events:

"Iteration"
ощущать

ощутить	$\varnothing$
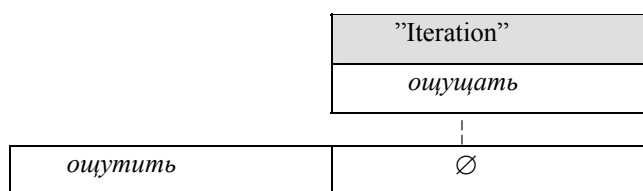
This is not the only possibility, however. The imperfective verbform can also be used to express a 1-state-situation. Specifically, it can be used to express the 1-state-situation that corresponds to the consequent state of the 2-state-situation associated with the underlying perfective verbform. In this paper I assume that, as in the case of iteration, this is the result of a morphological conversion. This yields a perfectic aspectual pair:

”Iteration”
ощущать

ощутить	∅

1-state-situation
ощущать
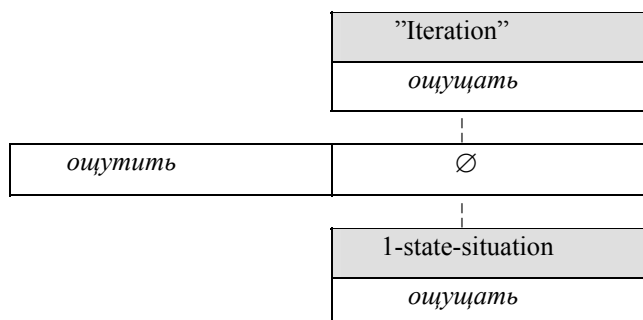
Perfectic pairs can have two origins: either a secondary perfective derives from a primary imperfective (via prefixation), or a secondary imperfective derives from a primary perfective. Independent of how they come about, primary and secondary perfectives denote 2-state-situations whereas primary and secondary imperfectives denote 1-state-situations.

In contrast to the consequent state of emotion verbs like *ощутить*, which is a state in the literal sense (состояние ингерентное), the consequent state of *найти* a relation (вневременные свойства/соотношения). I take this to be the reason why *найти* and *находить* do not form a perfectic aspectual pair, but "only" a trivial one.

5.2.7. Tendencies (предстояния, или тенденции)

Another important type of aspectual opposition is what Zaliznjak & Šmelev call "tendencies" (предстояния, или тенденции):

«В этих парах НСВ обозначает состояние (state), ”чреватое” некоторым событием (achievement), обозначенным СВ: *опаздывать-опоздать, успевать-успеть, выигрывать-выиграть, умирать-умереть.*» (s. Зализняк & Шмелев 1997:49).

The character of these aspectual pairs is, in a way, the mirror image of the character of perfectic pairs: the situation underlying a perfectic pair consists of a momentary initial state followed by an enduring consequent state, whereas the situation described by *опоздать* etc. consists of a temporally extended initial state followed by a momentary consequent state. Due to a temporal overlap, both kinds of 2-state-situations prevent an assertion which is valid of one state to the exclusion of the other. Therefore, like achivements of the *найти*-type, achievements of the *опоздать*-type do not meet the input conditions of the imperfectivization rule. But again, a non-trivial aspectual partner can be found: the 2-state-content of *опоздать* will be coerced into a 1-state-content by excluding the consequent state and this 1-state-content will then be the denotation of the imperfective *опаздывать*. This associative link brings it about that, whenever the imperfective form *опаздывать* is used to refer to the 1-state-situation, the 2-state-situation associated with *опоздать* will automatically be activated in the conceptual background, which explains the "prophetic" character of these imperfective verbforms (cf. Падучева 1996:113).

	"Iteration"
	умирать
умереть	∅
	1-state-situation
	умирать
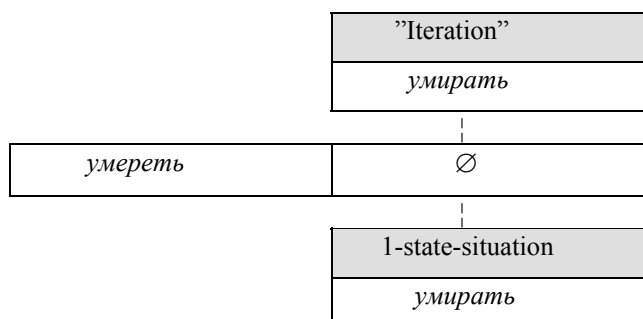
5.2.8. Summary

Paradigm cases of aspectual paradigms are bounded pairs like *открыть- открывать, растаять- таять* etc. It is only in these cases that the imperfective verbform and the perfective verbform describe exactly the same (2-state-) situation. In all other cases, the aspectual paradigm is, strictly speaking, defective: the perfectivization rule cannot directly apply to verbs like *гулять, кипеть, вмещать, болеть* etc. because these verbs do not denote 2-state-situations (as the perfectivization rule requires); the imperfectivization rule cannot directly apply to verbs like *найти* or *очнуться* etc. because the initial state and

the consequent state of the situation denoted by these verbs temporally overlap (which prevents an assertion true of the initial state only).

Prefixation is a grammatical means to derive a verbal lexeme with a 2-state-content from primarily imperfective verb, i.e. from a verbal lexeme with a 0- or 1-state-content. The derived prefix verb and the simple base verb then form a perfectic pair (e.g. *увидеть-видеть*). It is also possible to derive verbs with a 1-state-content, i.e. imperfectives, from verbs with a 2-state-content. Two cases must be distinguished: in pairs like *ощутить-ощущать* the single state designated by the imperfective *ощущать* maps the consequent state of the perfective *ощутить*, and in cases like *умереть-умирать* the state designated by the imperfective *умирать* maps the initial state of the perfective *умереть*.

5.3. Aspect markers

This section is dedicated to the formal plane of aspectual oppositions. Different construction types can be identified (cf. Зализняк & Шмелев 1997:59-62). There are basically four ways of how aspectual pairs are formed:[14]

1. The imperfective is formed by suffixing a primarily perfective verb stem.
2. A different verb stem is used to express the opposite aspectual value (whereby the denoted situation remains the same).
3. The perfective is formed by prefixing a primarily imperfective verb stem.
4. Perfectives and imperfectives do not differ formally (двувидовые глаголы).

The options 2 and 4 are obviously irrelevant for the *grammaticalized* aspectual system in the Russian language. Suppletive aspectual partners like, for instance, *положить-класть,* or *сказать-говорить* result from two verbforms of originally different lexemes which both wandered into the conceptual space that became critical for the aspectual category (i.e., that turned into grammatical space).

Biaspectual verbs ("Двувидовые глаголы") are those verbs that can be used to express imperfective as well as perfective aspect. One form covers the whole conceptual space.

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[14] Fore ease of exposition I trace over forming a perfective verb by infixing -ни-, as discussed in section 5.2.4 (cf. Зализняк & Шмелев 1997:61).

Examples are *жениться, казнить, использовать, ассимилироваться*, among others. Their number is decreasing:

«[Р]усская аспектуальная система стремится устранить омонимию сов. и несов. вида, каковую являют собою двувидовые глаголы» (Зализняк & Шмелев 1997:66).

According to Čertkova and Čang (cf. Черткова & Чанг 1998), 41% of all biaspectual verbs at the same time have regular aspectual partners. 73% of these partners are prefixed perfectives (e.g. *информировать-(про)информировать, жениться-(по)жениться*) and 27% of them are suffixed imperfectives (e.g. *арестов(ыва)ть-арестовать*). Thus, biaspectual verbs more and more adopt to the regular Russian system, which formally differentiates between the two aspectual values. This process can be viewed as the consequence of paradigm pressure in the sense of McCreight & Chvany (1991).

5.3.1. Imperfective constructions

If an imperfectivizing suffix attaches to a perfective verb stem, this amounts to one of the following cases (cf. Зализняк & Шмелев 1997:59-61):

1. The suffix contrasts with a theme vowel: *переписать-перепис**ыва**ть, реш**ить**-реш**á**ть, разр**é**з**ать-разрезáть**, забол**еть**-забол**ева**ть, зате**ять**-зате**ва**ть*

2. The suffix contrasts with nothing (i.e. with a zero morpheme): *открыть-откр**ыва**ть, пролезть-пролез**а**ть*

3. The suffix contrasts with another suffix: *прыг**ну**ть-прыг**а**ть, промах**ну**ться-промах**ива**ться*

Let us exclude the third case (cf. 5.2.4.). One analysis that lies at hand would be that, in pairs like *решить-решать*, the morpheme *-и-* signals imperfectivity and the morpheme *-а-* signals perfectivity.

«В аспектологии принято считать, что (если абстрагировать от спорного статуса пустых приставок) основообразующие морфемы являются формами выражения видовых понятий (видов) только в тех случаях, когда корневая семантема

сочетается альтернативно с двумя граммемами и когда формальное чередование сопряжено с семантической оппозицией.» (Кароляк 1997:55).

Note that this view would commit us to the assumption that in pairs like *открыть-открывать* there must a zero morpheme which opposes to the overt morpheme *-ва-*. There is an alternative, however: Karolak points out that in the first person singular of *решить, решу,* there is no morpheme *-и-*. This, he believes, suggests that it is rather the verb stem itself ("корневая семантема") that carries the perfectivity information:

«[С]емантема *реш-* в глаголе *решить* обозначает сложный СВ, точнее, результативную конфигурацию с главным простым СВ и подчиненным ему простым НСВ. Граммема *-и-* выполняет здесь чисто структурную, основообразовательную функцию. Что касается глалола *решать*, то в нем суффикс *-а-* граммема с семантической функцией: она имеет значение простого НСВ, и сочетание результативной двухвидовой семантемы с длительной граммемой образует более сложную трехвидовую теличную конфигурацию. Главным ее компонентом является длительное понятие интенционального действия, подчиненным же сложное результативное (или инхоативное) понятие с моментальной доминантой.» (Кароляк 1997:61).

It is easy to see that Karolak's analyzis of the stem *реш-* as the formal exponent of perfectivity is perfectly compatible with the theory of aspect that I advocate in this paper. To repeat: grammatical aspect (вид) is viewed as an inflectional category operating on top of the classificational grammatical category that one can call lexical aspect. Moreover, there is no need to postulate the presence of a zero morpheme in pairs like *открыть-открывать*.

How about imperfectivization by means of the suffix *–ва-*? Note that this process always leads to aspectual pairs. Does this show that *–ва-* is an inflectional morpheme?:

«[У]стройство русской морфологии таково, что глагол, возникший путем имперфективации [...] является не просто глаголом несов. вида, а еще и видовым коррелятом к исходному глаголу сов. вида.» (Зализняк & Шмелев 1997:67).

6. Drawing conclusions

6.1. Imperfectivizing suffixes

Verbal prefixes cannot be inflectional morphemes because prefixing a simple verb does not always create an aspectual partner verb. An inflectional morpheme by definition competes with at least one other inflectional morpheme. The meanings expressed by competing inflectional morphemes stand toward each other in non-privative (equipollent) oppositions. Such a non-privative opposition is represented by pairs like *открыть – открывать*.

In this paper, I adopt the viewpoint that grammatical aspect is based on the semantic assignment of primary aspectual values to lexical aspectual classes. This means that it is basically the lexical stem that bears the aspectual information. Against this background, it is plausible to follow Isačenko who considers the suffix *-ва-* to be a stem forming morpheme (and not an imperfectivity morpheme). The suffix *-ва-* is one element out of a limited set of elements that are all used to shift perfective stems onto imperfective stems:

"Das einzige wirklich *grammatische* Kennzeichen aller sekundären Imperfektiva ist ihre Zugehörigkeit zur I. produktiven Verbalklasse. Alle sekundären Imperfektiva ohne eine einzige Ausnahme flektieren nach dem Muster читать bzw. менять. Perfektiva, die nicht schon von Haus aus der I. Klasse angehören (wie z.B. прочитать), werden bei der Imperfektivierung in die I. Verbalklasse auf -ать -аю -ает bzw. -ять -яю -яет übergeführt." (Isačenko 1968:367).

The conjugation pattern -ать/-ять, -аю/-яю, -ает/-яет serves as a class marker in that it unequivocally signals that the respective verb stem is associated with the aspectual value 'imperfective'. Checking the list of verbs (cf. 4.1) indeed shows a clear distribution:

11 out of 18 prefixed relation verbs as well as 2 out of 9 prefix verb candidates of this class follow the conjugation pattern -ать/-ять, -аю/-яю, -ает/-яет. This is not significant. 8 out of 11 prefix state verbs and 9 out of 17 prefix verb candidates of this group pattern -ать/-ять, -аю/-яю, -ает/-яет. This seems to be a mere random distribution too. Crucially, however, every activity verb and every process verb that has a prefix or a prefix candidate follows the conjugation type -ать/-ять, -аю/-яю, -ает/-яет![15] On the other hand, no more than six primary perfectives belong to this conjugation type, namely: *пообещать*, *потерять*, *растаять, опоздать, выиграть, догадаться.*

6.2. Semantic Assigment

The Russian grammar hosts a s*emantic assignment*-rule. It goes as follows: Semantically transitive verbal lexemes are perfective. Or, which is the same: If a verb lexically describes a 2-state-situation, it will be perfective. Or: which is also equivalent: If a verb lexically describes a situation involving two potentially active participants, it will be perfective.

This rule operates on well-defined lexical verbal categories. Padučeva's system of eight T-categories is an attempt to spell the relevant categories out in much detail. To understand the core of the aspectual mechanism, a two-way distinction between verbs describing 2-state-contents and non-2-state-contents is sufficient (within the class of semantically intransitives there is a further subdivision between temporally localized and "atemporal" (generic) predicates). Against the background of this basic two-way distinction, inflectional aspect (вид) gains transparency. Not only is it possible to come up with simple rules (cf. 5.1.), it is also possible to trace back any aspectual pair in Russian to a semantic explanation (cf. 5.2.).

6.3. The function of the prefixes

According to Krongauz, it is characteristic of a Russian system prefixes that it imposes a 2-state-situation template on the meaning of the simplex verb that it combines with (cf. 4.6.). This implies that the prefix serves as a class marker overtly signaling that the verb belongs to the class of verbs denoting 2-state-situations. From this it can be concluded (by virtue of the semantic assigment rule) that the verb is perfective, unless the prefixed verb

conjugates -аю, -аешь, -ает,... or -яю, -яешь, -яет,... This conjugation pattern signals imperfectivity, overriding the impact of the semantic assignment. The precise morphonological rules of how primary perfective verbs can be transferred into this conjugation class must remain open here (cf. Isačenko 1968:366-367). We can observe segmental suffixes (-*ыв-, -ив-, -ев-, -в-*) and suprasegmental strategies (as, for instance, with *решáть*).

The main result of this investigation then is that the "perfectivizing prefixes" and the "imperfectivizing suffixes" are, in fact, no morphological exponents of the aspectual values 'perfective' or 'imperfective', respectively. The most we can say for the "suffixes" (e.g. -*ыва-, -ева-*) is that they signal that the verb belongs to conjugation class -аю/-яю, and that this construction is associated with imperfectivity. The prefixes by themselves fulfil a pure word formation function. They impose a 2-state-content on the meaning of the verb they attach to. This is relevant for the Russian aspectual system because verbal lexemes with a 2-state-content receive the aspectual value 'perfective' by default.

This is the solution to the puzzle that we started with in the beginning of this paper (cf. 0.1.): That inflectional categories operate on top of classificational categories implies that different lexical categories are integrated into one grammatical category. This brings it about that by themselves privative oppositions are used for purposes other than originally intended; they serve as equipollent (non-privative) oppositions, forming an inflectional paradigm.

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[15] There are only two exceptions: *учить* and *учиться*. But note that the motivation to count these verbs as prefix verb candidates is based on purely formal grounds, namely by the existence of *сочить(ся)*.

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