

On the Morphosyntax of Russian Verbal Aspect

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Abstract: Aspect is a syntactic feature of the sentence predicate, the INFL head of which is generated +PFV or –PFV and +PAST or –PAST. Verb forms comply with these features or are Inflected for them. Prefix-verb compounds are not stored in the lexicon but are base-generated in the sentence. They provide the environment for the Secondary Imperfective Rule, which assigns the feature +ITER to V when it contains a prefix. This feature governs the introduction of themes between the verb root and the ending. The +ITER feature can also be generated with the verb independently of the SIR, thus yielding the so-called procedurals. With unprefixated verbs aspectual patterning is a matter of their form (thematization) and their meaning. Those that are grammatical in +PFV predicates are +TELIC (have a telos or goal). This depends on their formal and semantic properties and ultimately on the intention of the speaker.

1. Introduction

Verbal aspect in Russian is widely held to be a lexical feature of individual verbs, which are entered in the lexicon as either perfective or imperfective (+/–Prv).¹ It is further assumed that the lexicon contains not only simple verbs like *pisat'* 'write' but also prefix-verb compounds like *napisat'* 'write', *zapisat'* 'write down', and *zapisyvat'* 'idem'. The redundancy of a lexicon that contains partially similar entries, in this case pairing /pis/ with the meaning 'write' in four separate entries, is mitigated by the inclusion in the grammar of a derivational component that derives *napisat'* and *zapisat'* from *pisat'* by prefixation and *zapisyvat'* from *zapisat'* by suffixation.² The purpose of this paper is

¹ Manova 2007 is representative of this widely held view.

² The term "derive" has a diachronic sense which posits an earlier stage of Russian when the lexicon contained the preposition/prefix /za/ and the verb /pis/ but speakers did not regularly use them in combination, also a later stage when the combined use of /za/ and /pis/ was common enough to merit being entered in the lexicon. The Russian Academy Grammar prefers a synchronic interpretation whereby "derived from" is replaced by "motivated by". In saying that *zapisat'* is motivated by *pisat'*, we allow that both are entered in the lexicon but that the pairing of *pisa-* with the meaning 'write' occurs only in the *pisat'* entry. The *zapisat'* entry includes its form and a ref-

to present a different, syntactic account of verbal aspect, in which +PFV and –PFV are not features of individual lexical entries but features of the sentence predicate in which verb forms occur. The sentence predicate is headed by the functional category INFL(ection), which is generated with the features +PFV or –PFV in addition to +PAST or –PAST, and verb forms adapt to these features.

The view that verbal aspect is a matter of inflection, not derivation, was advanced by Jurij Maslov, who came out “in favor of the inflectional character of the aspect category, in favor of recognizing perfective and imperfective forms, which express one and the same lexical meaning, as forms of the same verb” (1959: 170, transl. from Russian by F. G.), and by Alexander Isačenko, for whom it was beyond doubt that, for example, *otdat’* and *otdat’* ‘give back’ and similar prefixed pairs are aspectual forms of the same verb (see e.g., Isačenko 1962: 352). This view is countered by Zaliznjak and Šmelev (2000: 15), who give five arguments that aspect is derivational, not inflectional: 1. Aspect pairs involve prefixes and suffixes, which are features of derivation, not inflection. Prefixed *napišet* and unprefixed *pišet* are indeed related by derivation since they differ in their morphemic makeup,³ whereas *zapišet* and *zapisyvaet* ‘write down’, as argued below, do not. 2. Many imperfective verb forms, for example, *znat’*, *naxodit’sja*, *stoit’*, *sootvetstvovat’*, *protivorečit’*, have no perfective counterparts. But some nouns lacking plural forms and others lacking singular forms does not keep ±PLUR from being inflectional in nouns. 3. There is no one-to-one correspondence between verbs and prefix-verb compounds; for example, *rezat’* and *rvat’* have various P-V counterparts. True but irrelevant, because prefixation is not claimed to be inflectional. 4. Every inflected word should have a base form, for example, the infinitive, but aspect pairs have two infinitives. The base form shared by prefixed aspect pairs is [V [V P V] E]. 5. Aspect pairs sometimes differ in meaning. So do the +PLUR and –PLUR forms of some nouns.

The paper is organized as follows. Section 2 presents the syntax and morphology of verb forms. Section 3 presents their phonology. Section 4 lists the themes for which verbs are specified in the lexicon. Section 5 treats the themes which verbs acquire in the sentence. Section 6 presents the Secondary Imperfective Rule, which assigns the feature +ITER(ative) to the verb. Section 7 treats verbal prefixation. Section 8 presents the other source of the +ITER feature. Section 9 contrasts –ITER and +ITER +PFV verb forms. Section 10 deals with multiple prefixation. Section 11 addresses aspect in unprefixed verbs. Section 12 treats verbs which take thematic /n/ and addresses the question of semelfactive aktionsart. Section 13 contrasts punctual and durative actions.

erence to a derivational rule which states that verbs in *za-* mean roughly ‘down’ plus the meaning of the entry that matches *zapisat’* minus *za-*. *Zapisat’* would then be what Jackendoff (1975) calls an “impoverished entry”.

³ I use mostly the third-person singular as my citation form.

Section 15 treats –P_{FV} /n/ forms. Section 16 introduces the feature +DET(ermi-nate). Section 17 treats +DET verb forms with other thematizations. Section 18 introduces telicity, the feature +TELIC. Section 19 discusses telicity alone. Section 20 is a summary.

2. The Syntax and Morphology of the Verb

In a syntactic account of the Russian verb, the syntax component of the grammar does much of what in a traditional grammar is done by a morphology component. The phrase-structure rule that expands VP into V and its complements continues on the word level and expands V into V and E (ending). The [_V V E] structure thus generated is next lexicalized, for example, V → /pis/ and E → /t/ or E → /l/, depending on the predicate's tense feature and subject-predicate agreement. Verbal prefixation is also handled by the syntax. A sublexical phrase-structure rule expands V to [_V P V], which then may be lexicalized P → /za/ and V → /pis/, resulting in [_V [P /za/] [_V /pis/]].

What remains for the morphology component of the grammar is to introduce thematic elements between V and E. This is done by readjustment rules. First proposed by Chomsky and Halle (1968: 9), readjustment rules apply to the structured morpheme strings created by sublexical phrase-structure rules and lexical insertions and provide the input to the phonology component of the grammar. They have been applied to a broad range of linguistic phenomena, but in this paper their sole task is introducing phonemes between V and E, a process I call thematization. Thematization is often morphologically motivated, as when the introduction of a thematic vowel between two consonants in a verb form cancels the environment for a sound change that would obscure the form's transparency. In the Old Church Slavonic aorist form meaning 'they burned', when the [_V V E] structure [_V [V /žeg/] [_E /sen/]] was realized athematically, the result was *žase* with the root vowel lengthened and its final consonant elided. But in younger manuscripts we find thematic /o/ introduced between V and E and the result is the more transparent *žegošę*. Old Russian *ěste* 'you eat' became *edite* with the introduction of thematic /i/ into [_V [V /ěd/] [_E /te/]]. For a current example, some Russian speakers introduce only thematic /j/ and /e/ into lexical [_V [V /max/] [_E /t/]] 'waves' and say *mašet*. Others introduce also /a/ and say *maxaet*, preserving the *max-* of past-tense *maxal*.

3. The Phonology of the Verb

The phonology component of the grammar turns thematized strings of lexical items into phonetic representations, for example, [_V [V /pis/] /j/ /e/ [_E /t/]] into [p'íšit]. In some descriptions of Russian, the phonology component is limited

to deriving +back [i] from a more abstract /i/, and the relationship of [š] to /s/ is assigned to a morphophonology component of the grammar. In this paper phonology includes morphophonology and accounts for all allomorphy short of suppletion. It accounts for ‘write’ being sometimes *pis-*, sometimes *piš-*, but not for ‘go’ being sometimes *id-*, sometimes *š-*.

Some members of the verbal paradigm are more transparent in structure than others. Compare the 2sg, 3sg, 1pl., and 2pl. forms of first-conjugation *nesěš’, nesět, nesëm, nesëte* ‘carry (somewhere)’ with those of second-conjugation *nosiš’, nosit, nosim, nosite* ‘carry’: the endings *-š’, -t, -m, -te* are clearly distinguished from thematic *-ë-* and *-i-*. But the structure of the 1sg. and 3pl. forms is opaque. The Russian Academy Grammar (§1550), which does not analyze the terminal portions of verb forms into theme plus ending, recognizes a first conjugation with the endings *-(j)u, -eš’, -et, -em, -ete, -(j)ut* and a second conjugation with the endings *-(j)u, -iš’, -it, -im, -ite, -(j)at*. Timberlake (2004: 99) more or less follows suit.

Verbal morphology is simpler when all verbs select the same set of endings and do not need to be specified for conjugation class, as their conjugation class follows from their thematization. However, morphological simplicity comes at the cost of highly abstract representations of the 1sg. and 3pl. forms and phonological rules of limited application. As the 1sg. ending I propose /m/, as in *em* ‘I eat’ and *dam* ‘I’ll give’. In terms of lexical items, *nesu* is [V [V /nes/] [E /m/]] and *nošu* has its ablauted form [V [V /nos/] [E /m/]]. The former is thematized to [V [V /nes/] /o/ [E /m/]], while the latter is doubly thematized to [V [V /nos/] /i/ /o/ [E /m/]]. In both forms /om/ monophthongizes via a back nasal vowel to *-u*. (This doesn’t occur in *em* and *dam* because in these forms /m/ is followed by a fleeting vowel.) In *nošu* /i/ combines with /s/ to yield š. The 3pl. forms are underlyingly [V [V /nes/] [E /nt/]] and [V [V /nos/] [E /nt/]], thematized respectively to [V [V /nes/] /o/ [E /nt/]] and [V [V /nos/] /i/ [E /nt/]]. In the former /on/ develops like /om/ to *-u-*, and in the latter /in/ monophthongizes via a front nasal vowel to an intermediate /ä/ which loses its –back feature before the hard final [t].

Accounting for morphophonological alternations in Russian verb forms calls for more vowel phonemes than just /i e a o u/. At very least, a +back –round counterpart of /i/ must be recognized, as in /kry/ ‘cover’. This vowel and that in /bi/ ‘beat’ cannot be subsumed under a single /i/ because they behave differently. Before thematic /j/, as in 3sg. *kroet* and *b’ët* and imperative *bej, /y/* and /i/ change into fleeting vowels, realized as mid vowels in *kroet* and *bej* and elided in *b’ët*. Fleeting vowels should be recognized as real vowels, bundles of phonetic features, not as abstract, nonphonetic units—Išačenko 1970 proposed {#}—that are turned into vowels by morphophonemic rules. In their analysis of Russian adjectives, Halle and Matushansky (2006: 355) posit nine vowel phonemes, which they define with four binary features: ±high, ±back, ±round, and a feature they call ±advanced tongue root but I will call ±tense.

For five of their nine vowels I substitute letters which are more familiar to Slavists. For representing the fleeting vowels I follow Lunt's (1977: 76) suggestion. The +high vowels are /i ɤ y ɤ u/. The –high vowels are /ě e o a/. The +round vowels are /ɤ u o/. The +tense vowels are /i y u ě a/, and the –tense vowels are /ɤ ɤ e o/. I add a tenth vowel, a +tense, –round, –high, and –back /ä/, which is needed so that consonant palatalization can be regular in position before a –back vowel. In tabular form the ten vowel phonemes assumed in this paper are given in Table 1.

Table 1: Russian vowel phonemes

	i	ɤ	y	ɤ	u	ě	e	o	a	ä
High	+	+	+	+	+	–	–	–	–	–
Back	–	–	+	+	+	–	–	+	+	–
Round	–	–	–	+	+	–	–	+	–	–
Tense	+	–	+	–	+	+	–	–	+	+

4. Lexical Verbal Themes

Structures of the format [V V E] are thematized according to how the verb, that is, the morpheme that occupies the V position in the verb form, is specified in the lexicon. Note that the morpheme in the V position is not always a lexical verb. In *usilit* ‘strengthen’, for instance, it is a lexical noun. It occurs in this verb form owing to the sublexical recategorization V → N that results in the structure [V N]], lexicalized as [V [N /sil/]].

Aside from a handful of athematic forms like *est* ‘eats’, which is structured [V [V /ěd/] [E /t/]] with nothing between V and E, nonpast verb forms in Russian are all thematic. Russian has about 50 so-called consonant verbs, which end in a consonant. Their nonpast forms show what may be considered the unmarked, default thematization, /o/ in the 1sg, and 3pl. forms (*nesu, nesut*) and /e/ in the other four forms (*nesěš’, nesět, nesēm, nesěte*). Their past-tense forms are athematic (*niš, nesla, neslo, nesli*).⁴ Somewhat smaller is the class of vocalic verbs, which end in a vowel. These include /zna/ ‘know’ /grě/ ‘heat’, /bi/ ‘beat’, /kry/ ‘cover’, and /u/ ‘shoe’.⁵ In nonpast forms they have thematic /j/, which entails the unmarked /o/ and /e/ nonpast thematization: *znaju, znaeš’, greju, greeš’, b’ ju, b’ ěš’, kroju, kroeš’, obuju, obueš’*. They have athematic past-tense forms: *znal, grel, bil, kryl, obul*.

⁴ An exception is *revět* ‘roar’, which has thematic /ě/ in past-tense forms, *revel*.

⁵ Occurs only with a prefix, /ob/ or /raz/.

Somewhat larger is the class of verbs, exemplified by /pis/ 'write', which have thematic /a/ in past-tense forms only (*pisal*) and in nonpast forms thematic /j/, which entails the unmarked nonpast themes (*pišu, pišeš*). Since verbs that take /a/ only in past-tense forms regularly take /j/ in nonpast forms, they may be entered in the lexicon specified +A/PAST.

Exceptions to this distribution of themes include a dozen asyllabic verbs like *bral* and *lgal*, which have /a/ in past-tense forms but no /j/ in nonpast forms (*berut, lgut*, not **berjut, *lžut*). An isolated exception is /sos/ 'suck': although syllabic like /pis/ and having /a/ only in past-tense forms, it has no /j/ in nonpast forms: *sosēt*, not **sóšet*. There are also a handful of verbs like /bor/ 'battle' and /mel/ 'mill' which have /j/ in nonpast forms (*borjutsja, meljut*) but no /a/ in past-tense forms (*borolsja, molol*, not **boralsja, *melal*).

This class of verbs is not itself productive,⁶ but the highly productive thematic diphthong /ou/ entails +A/PAST thematization. For example, the noun /torg/ 'trade' when it occurs in a verb form selects /ou/ and has +A/PAST thematization (*torguet, torgoval*). The productivity of thematic /ou/ is due in part to being selected by the productive verbal suffixes /iz/ and /ir/, as in *realizuet, realizoval* 'realize' and *formiruet, formiroval* 'organize'.

A larger, productive class of verbs has thematic /a/ in both past and nonpast forms, for example, /kop/ 'dig': *kopaet, kopal*. Verbs of this class can be specified in the lexicon simply +A because thematic /a/ in nonpast forms entails thematic /j/ and /o/ ~ /e/. The productivity of +A verbs is due in part to +A thematization losing its aspectual function and becoming lexicalized. For example, *bodaet* 'butt' is no longer aspectually related to a **bodēt*.

Another productive class of verbs has thematic /ě/, which in nonpast forms entails thematic /j/ and /o/ ~ /e/. An example is /um/ 'know how': *umeet, umel*. After a palatal consonant /ě/ shifts to *a*, thus /slux/ 'listen (to)': *slušaet, slušal*.

Standing apart from the above verb classes, which share /o/ ~ /e/ thematization, are verbs like /pros/ 'request', which show thematic /i/ in both nonpast and past forms (*prosit, prosil*). Their lexical specification is +I. With some verbs +I thematization is aspectual (see below). Also showing thematic /i/ in nonpast forms are verbs like /sid/ 'sit' (*sidit*), which have thematic /ě/ in past-tense forms (*sidel*). Their lexical specification is +Ě/PAST.

Thematic /n/ (discussed below) is a lexical thematization inasmuch as verbs are specified for it in the lexicon, but it is an aspectual thematization because its occurrence is conditioned by aspect.

This account of verbal conjugation, based on verb roots and their thematizations, differs from accounts based on stems, such as that proposed in Jakobson 1948. Jakobson's "full stems" include thematic elements that are sometimes truncated in position before endings, which endings sometimes

⁶ Although the class of *-tat'* verbs denoting noises, like *bormotat'* 'mutter', *groxotat'* 'roar', *roptat'* 'grumble', *kvoxtat'* 'crow', etc. may be productive.

include thematic elements. For example, *kopal* 'dug' according to Jakobson is underlyingly /kopaj+I/ where /j/ is truncated before /l/, and *pišet* 'writes' is underlyingly /pisa+et/,⁷ where /a/ is truncated before /e/ and /s/ is iotated to š in the process. Compare Jakobson's full-stem representations /nes/, /pisa/, /kopaj/, /umej/, /prosi/, and /side/ with my root-based representations /nes/ (unmarked), /pis/ +A/PAST, /kop/ +A, /um/ +Ě, /pros/ +I, and /sid/ +Ě/PAST.

5. Aspectual Verbal Themes

In addition to lexical thematizations which verbs bring to the sentence from the lexicon, there are ITER(ative) thematizations, which they acquire in the sentence.⁸ The sentence environments in which verbs acquire +ITER thematization are discussed in sections 6 and 8. Here they are simply listed. Verb forms not specified +ITER are –ITER.

The default aspectual thematization is +A. But there are two groups of verbs that constitute exceptions. First, three vocalic verbs, /da/ 'give', /sta/ 'stand' and /zna/ 'know', have the +ITER thematization +A/PAST. Thus –ITER (+PFV) *pro-dast*, *prodal* 'sell', *vstanet*, *vstal* 'stand up', and *uznáet*, *uznal* 'recognize' have the +ITER (–PFV) forms *prodaët*, *prodaval*, *vstaët*, *vstaval*, and *uznaët*, *uznaval*.⁹ Verb forms with +A or +A/PAST +ITER thematization accent the postroot syllable.

Second, a handful of consonant verbs when specified +ITER undergo /CeC/ → /CoC/ ablaut and take +I thematization. They are /bred/ 'shuffle', /lěz/ 'climb', /nes/ 'carry', /ved/ 'lead', /vez/ 'convey', and a verb that may be represented as /xed/ 'walk'.¹⁰ The ablaut change /CeC/ → /CoC/ is a minor phonological rule that applies only to verbs specified for it in the lexicon. –ITER *bredët*, *lezet*, *nesët*, *vedët*, *vezët*, and suppletive *idët* have the +ITER forms *brodit*, *lazit*, *nosit*, *vodit*, *vožit*, and *xodit*.

This unproductive and irregular class of verbs over the years has lost members and continues to lose them. *Gonit* 'drive' is no longer the +ITER of a lost –ITER *ženet*_v. It has been realigned with the latter form's past-tense form *gnal*. *Voločit* 'drag' no longer functions as the +ITER counterpart of a –ITER *voločët* 'drag', possibly because of the sound changes undergone by underlying /velk/ in addition to ablaut. The relationship of –ITER *bredët* to +ITER *brodit* has weakened owing to semantic divergence. Their weakened relationship is

⁷ I have altered Jakobson's notation.

⁸ I follow Dostál (1954: 19) in so labeling them, aware of the distinction he draws between morphological iteratives and semantic iteratives, since not all of the former express iteration. Meillet (1934: 291–92) favors the term durative over iterative.

⁹ The +A form *obnimaet* 'embrace' has the ablauting +A/PAST variant *ob'emlet*.

¹⁰ Some scholars, e.g., Isačenko (1962: 381), consider these pairs to be suppletive like –ITER *idët* ~ +ITER *xodit* 'go'.

seen in +ITER (–PFV) *perebrodit* ‘ford’ having been replaced by *perebredaet* with the productive +A thematization. As for /lěz/, +ITER *lazit* ‘climb, clamber’ still contrasts with –ITER *lezet* ‘climb, crawl’, even though /CeC/ ~ /CoC/ ablaut is opaque in this verb. The weakening of the ±ITER relationship is reflected in *vylezaet* ‘climb out’ with +A thematization competing with *vylazit*. However, +ITER *nosit*, *vodit*, *vozit*, and *xodit* maintain a relationship with –ITER *nesět*, *vedět*, *vezět*, and *idět*, and likewise with prefixes, for example, +PFV *prinesět* ~ –PFV *prinosit* ‘bring’, etc.

Otherwise, consonant verbs show the +ITER thematization /a/. The –ITER (+PFV) forms *spasět* ‘save’ and *načnět* ‘begin’ have the +ITER (–PFV) forms *spasaet* and *načinaet* (–čn- lengthens to –čin-). An exception to this rule is /krad/ ‘steal’, which has the unmarked /e/ ~ /o/ –ITER thematization in unprefixed use (*kradět*) but +Y +ITER thematization in prefixed use, *obkradyvaet* ‘rob’.

Vocalic verbs also show +A +ITER thematization. –ITER (+PFV) *ub’ět* ‘kill’, *zakroet* ‘close’, and *razuet* ‘unshoe’ have +ITER (–PFV) *ubivoaet*, *zakryvoaet*, and *razuvaet*. The hiatus between the verb-final vowel and thematic /a/ is filled by /v/.

Certain verbs that reflect +ITER with internal changes also show the default /a/ when +ITER. Thus /bьr/ ‘take’, /rьv/ ‘tear’, and /rěz/ ‘cut’, which have thematic /a/ in –ITER *sobral* ‘gather’, *sorval* ‘tear off’, and *otrězal*, *otrězet* ‘cut off’, have it also in +ITER *sobiral*, *sryval*, and *otrezál*, *otrezáet*.

But most verbs with /a/ as their lexical thematization in their +ITER thematization accompany it with an additional, exclusively aspectual, thematization for /y/. If [V [V [P /za/] [V /pis/] [E /l/]] ‘wrote’ in a –PFV environment had only +A thematization it would be homophonous with +PFV *zapisal*. So it acquires also /y/, thus [V [V [P /za/] [V /pis/] /y/ /a/ [E /l/]]. The hiatus between the theme vowels is filled by /v/: *zapisyvaet*. These two theme vowels and the hiatus filler constitute what some scholars consider the –PFV suffix /yva/. Verb forms with thematic /y/ are accented on the syllable before /y/ (*raskápyvaet* ‘excavate’). That is, /y/ attracts the accent and surrenders it to the previous syllable.

+A is the +ITER thematization also for +I verbs. They regularly precede it with thematic /i/, which causes iotation in the final consonant. Thus –ITER (+PFV) *predstavit* ‘present’ and +ITER (–PFV) *predstavljaet* and –ITER (+PFV) *pobedit* ‘vanquish’ and +ITER (–PFV) *pobeždaet*. There are exceptions: –ITER (+PFV) *vystupit* ‘step out’ has the +ITER (–PFV) form *vytupaet* with no /i/, not **vystupljaet*.

+ITER thematic /y/ is productive, occurring also in forms where avoidance of homophony with the –ITER form does not require it. For –ITER (+PFV) *prigotovit* ‘prepare’ the +ITER (–PFV) is *prigotovlaet* with /a/ and also *prigotavli-vaet* with an additional /y/. The choice between /a/ and /a/ with /y/ is sometimes determined stylistically. The bookish (Church Slavic) *prosvečit* ‘enlighten’ has its +ITER (–PFV) form with only thematic /a/, *prosveščet*, but in the +ITER (–PFV) form of native Russian *prosvečit* ‘X-ray’, thematic /y/ occurs in addition to /a/: *prosvečivoaet*.

To summarize, the three aspectual thematizations discussed, +I with ablaut, +A, and +Y, while differing in their range of occurrence are equivalent realizations of the +ITER feature. Their equivalence is reflected in their alternating with one another. +ITER is expressed by +I and ablaut in *vylazit* ‘climb out’ and *perebrodit* ‘ford’ and innovatively by +A in *vylezaet* and *perebredaet*. There is also alternation between +A and +A with +Y thematizations, for example, in *prigovooljaet* and *prigotavlivaet* ‘prepare’. The phoneme string *-iva-* in *prigotavlivaet* or *-yva-* in *zapisyvaet* has no more claim to the status of a suffix than does the *-a-* of *spasaet* or the *-i-* of *vylazit*. Prefixed imperfective verb forms show various thematizations, but they do not contain suffixes. –PFV *zapisyvaet* has the same three-morpheme structure, [V [V [P /za/] [V /pis/]] [E /t/]], as +PFV *zapišet*, differing from the latter only in its aspect-conditioned thematization. This is the basis for claiming the ±PFV relationship between such sets of prefixed verb forms is inflectional. It is not derivational because the phonemes between V and E are not suffixes.

6. The Syntax of +ITER

The main source of +ITER in verb forms is the Secondary Imperfective Rule (SIR), which assigns +ITER to V when it contains a prefix. This feature comes to be associated with the morpheme at V and conditions its +ITER thematization. The SIR owes its centrality to the workings of verbal aspect to the semantic bleaching of +ITER thematization in prefix-verb compounds. In *pisyval* ‘used to write’ in the absence of a prefix +ITER thematization is meaningful, marking the form as Iterative and nondurative. Iterative V *molodosti Saša pisyval stixi* ‘In his youth Saša wrote poetry’ is grammatical, but durative **Kogda Maša vošla v komnatu, Saša pisyval stixi* ‘When Maša entered the room Saša was writing poetry’ is not. Such forms are moreover restricted to past tense. **I po sej den’ on pisyvaet stixi* ‘And to this day he writes poetry now and then’ is ungrammatical.

The latter restriction on +ITER forms does not apply to /by/ ‘be’ or the dozen Verbs of Motion. In the following –ITER/+ITER pairs, the +ITER member also has nonpast forms, even if it lacks durative meaning: *bežit/bégaet* ‘run’, *bredět/brodit* ‘wander’, *edet/ezdit* ‘ride’, *gonit/gonjaet* ‘drive’, *idět/xodit* ‘walk’, *letit/letaet* ‘fly’, *lezet/lazit* ‘climb’, *nesět/nosit* ‘carry’, *plyvět/plavaet* ‘swim’, *polzět/polzaet* ‘crawl’, *taščit/taskaet* ‘drag’, *vedět/vodit* ‘lead’, and *vezět/vozit* ‘convey’.

Owing to the semantic bleaching (grammaticalization) of +ITER in the environment of a prefix,¹¹ in *zapisyvaet* both of these restrictions are canceled: V

¹¹ Prefixes are important also for Stephen M. Dickey’s historical-comparative approach to verbal aspect, which differs from my synchronic generative approach. He is concerned with “the role that the prefix *po-* has played in the grammaticalization of aspect in the individual Slavic languages” (2011: 176). I think he meant to say “the role

tot/ètot moment Saša zapisyval/zapisyvaet svoi vpečatlenija 'At that / this moment Saša was/is recording his impressions'. The semantic depletion of +ITER in prefixed verbs is the basis of syntactic (inflectional) aspect in Russian.¹²

7. Verbal Prefixation

Verbal prefixation, as proposed above, is base-generated in the syntax. V is expanded to [_V P V] and P and V are lexicalized individually. But a competing view, that verbal prefixation involves movement transformations, should be noted. Fowler (1996) proposes, in contrast to my INFL VP sentence predicate, a more ramified one consisting of an Imperfective Phrase containing a Perfective Phrase containing VP, thus [IPFV [PFV [VP V]]]. PFV is the position for a perfectivizing prefix and IPFV the position for an imperfectivizing suffix. With /za/ at PFV and /pis/ at V, /pis/ raises to [_{PFV} /za/], which gets affixed to it, thus [_{PFV} /za-pis/], which in a nonpast sentence with a third-person singular subject is realized as *zapišet*. On the other hand, with /yva/ in the IPFV position [_{PFV} /za-pis/] raises to it, thus [_{IPFV} /yva/ /za-pis/], and the affixation of /yva/ to /za-pis/ results in *zapisyvaet*. This formalizes what is commonly taught about aspectual derivation: prefix imperfective *pisat'* to get perfective *zapisat'*; suffix perfective *zapisat'* to get imperfective *zapisyvat'*.¹³

Researchers at the Center for the Advanced Study of Theoretical Linguistics (CASTL) in Tromsø, Norway, also hold that prefixation involves movement transformations, but they posit a more ramified structure for the sentence predicate than Fowler's. They propose two different PFV positions to accommodate what they consider two different classes of verbal prefixes. Structured at the PFV within VP are lexical prefixes, which have mostly spatial meanings. Structured at the higher PFV outside VP are supralexicale prefixes, which have abstract meanings (see Svenonius 2004). To see how this works with two PFV nodes and two kinds of prefixes, take Fowler's [IPFV [PFV [VP V]]] and embed it in a constituent headed by supralexicale PFV, thus [PFV [IPFV [VP PFV [V]]]].

that the grammaticalization of the prefix *po-* has played in the emergence of aspect in the individual Slavic languages".

¹² This can be said of Slavic generally. Kuryłowicz (1928: 199) observed that while these thematizations ("suffixes") leave only traces in other Indo-European languages, uniquely in Slavic they play a role in expressing verbal aspect.

¹³ The example and the formalization are mine. Fowler explains his analysis as follows: "Verbal prefixes can profitably be considered as syntactically separate from the rest of a prefixed verb, added to the inflected verb through a syntactic process of head-to-head movement, following assumptions that have become standard in GB theory in the 1990's. Moreover, I claim that there are two separate aspectual elements associated with verbs: both perfectivizing prefixes and imperfectivizing suffixes occupy separate projections in the functional apparatus of a sentence" (1996: 99).

With the lower (righthand) PFV hosting the lexical (spatial) /za/ and /beg/ 'run' at V, we get *zabežit* 'drop in (to see)'. And when this P-V combination is raised to IPFV it is imperfectivized to *zabegáet*. But when the higher (lefthand) PFV is occupied by the supralexical (inceptive) /za/ (with nothing in the two lower positions), /beg/ raises to it and yields *zabégaet* 'start running'. The lack of a -PFV counterpart to *zabégaet* is explained by there being no IPFV position above the higher PFV to which *zabégaet* can raise.¹⁴ Tatevosov (2013: 46) claims that the Tromsø view of verbal prefixation is generally accepted and provides a list of supralexical prefixes: inceptive *za-* (*zapet'* 'start singing'), delimitative *po-* (*posidet'* 'sit for a while'), cumulative *na-* (*nalovit'* *ryby* 'catch a lot of fish'), distributive *pere-* (*perestreljat'* *vsex vragov* 'shoot all the enemies'), completive *do-* (*dopisat'* 'finish writing'), repetitive *pere-* (*perečitat'* *roman* 'reread a novel'), attenuative *pod-* (*podzabyt'* 'somewhat forget'), and distributive *po-* (*pobrosat'* 'throw about').

But an examination of verbal prefixes and their aspectual environments will, I believe, show the difference between lexical and supralexical prefixes to be simply a matter of -ITER versus +ITER environments.

8. The Other Source of +ITER

Aside from the +ITER feature being assigned to V by the SIR, V can be generated +ITER independently. When VP is expanded to +ITER V (plus complements) and lexicalized as [V /beg/], it receives its +ITER shape, *bégaet*. If +ITER V prior to lexicalization is expanded to [V P V] and lexicalized as [V [P /za/] [V /beg/]], /beg/ shows the same +ITER shape, *zabégaet*. Note that *zabégaet* differs from the result of +ITER being assigned to the verb by the SIR, which is *zabegáet*, the -PFV of *zabežit* 'stop by'.

Whereas in *zabégaet* the entire [V P V] is generated +ITER, it is possible for only the lower, subordinate V to be +ITER. We see this in *zaxaživaet* 'stop by from time to time', which differs from morphologically identical *snašivaet* 'wear out' by the position of the +ITER feature. In the latter, the entire [V [P /sɤ/] [V /nes/]] is +ITER, which conditions the abstract sense of /sɤ/ (see below). In *zaxaživaet* on the other hand, [V [P /za/] [V /xed/]] is -ITER and the prefix is spatial. Only the lower V is +ITER. Thus *snašivaet* is the -PFV of +ITER *snosit*, while *zaxaživaet* is the +ITER of -PFV *zaxodit*.

9. -ITER and +ITER +PFV Verb Forms

The following listing shows a -ITER prefixed verb form conditioning a spatial sense of the prefix and a +ITER prefixed verb form conditioning an abstract

¹⁴ This formalization of the Tromsø proposal is mine.

sense of the prefix.¹⁵ I cite only +PFV forms because the +ITER feature introduced by the SIR is irrelevant. In the traditional literature +PFV +ITER prefix-verb compounds are discussed under the rubric of procedurals (Aktionsarten, *sposoby dejstvija*).

- Do- Spatial *do-* 'action to a certain point':¹⁶ *Doveli železnuju dorogu do morja* 'They built the railroad as far as the sea'.
 Abstract *do-* 'action to a certain state': *Mal'čiki dokatalis' do prostudy* 'The boys skated so long they caught colds'.¹⁷
- Na- Spatial *na-* 'action directed onto a surface': *My nabreli na lesnoe ozero* 'We wandered onto a forest lake'.
 Abstract *na-* 'accumulation': *Nadaovala nam sovetov* 'She gave us a lot of advice'.
- O(b)- Spatial *o(b)-* 'action surrounding the object': *Kosmičeskij korabl' dvaždy obletel Zemlju* 'The spaceship circled the earth twice'.
 Abstract *o(b)-* 'transformation': *ob"ezditi lošad'* 'saddle-train a horse'.
- Ot- Spatial *ot-* 'motion away from a point': *Ne bez truda otkáčnuli v storonu odnu cep'* 'With some difficulty they shoved aside one of the chains'.
 Abstract *ot-* 'completion of action': *Otkáčali tonuvsěgo* 'They revived the drowning victim'.
- Pere- Spatial *pere-* 'action across or through something': *Požarnye perekriknulis' s kem-to v dome* 'The firefighters made contact with someone in the house'.
 Abstract *pere-* 'excess; superiority': *Paren' perekričal vsech kolleg* 'The boy drowned out all his friends'.
- Po- Spatial *po-* 'movement along': *Oni povelili ego v spal'nju i povalili na krovat'* 'They led him into the bedroom and dumped him on the bed'.
 Abstract *po-* 'action of short duration': *Povodili bol'nogo po komnate* 'They walked the patient around the room'.
- Pro- Spatial *pro-* 'action through, across, or past the object': *Čerez melkovod'e lodku protaščili volokom* 'They dragged the boat through the shallows'.

¹⁵ I say "sense" rather than "meaning" because I assume these are single polysemous prefixes, not pairs of homophonous prefixes.

¹⁶ The definitions of prefixes are from Wheeler 1984.

¹⁷ I omit *iz-* from this listing because *izojti* 'exude', as in *izojti krov'ju* 'bleed to death', and *izojti vostorgom* 'overflow with delight' does not show the spatial counterpart to the abstract 'exhaustiveness of action' sense seen in *izletaet vse gorjučee* 'use up all the plane's fuel'.

- Abstract *pro-* ‘duration of action through a period of time’: *Celuju nedelju protaskal pis'mo v karmane* ‘He carried the letter around in his pocket all week’.¹⁸
- Raz- Spatial *raz-* ‘action in different directions’: *Zmei raspolzlis' v raznye storony* ‘The snakes slithered off in different directions’.
Abstract *raz-* ‘intensified action’: *Sdelalas' sumatoxa, slugi razbégalis', kak odurelye* ‘Turmoil ensued; the servants started running around stupified’.
- S- There are two spatial *s-s*, ‘motion downward’ and ‘converging motion’: *Snesla čemodan s čerdaka* ‘She carried the suitcase down from the attic’, *Sveli sborniki v odin tom* ‘They gathered the collections into a single volume’.
Abstract *s-* ‘realization’: *Mat' snosila rebenka k vraču* ‘The mother took her child to the doctor’.
- U- Spatial *u-* ‘movement away from a place’: *Xozjain uvël gostej v kabinet* ‘The host took the guests into his study’.
Abstract *u-* ‘achievement’: *Ego uxodili* ‘He was done in’.
- Vy- Spatial *vy-* ‘motion outwards’: *Vytaščila zanozu iz pal'ca* ‘She pulled the splinter out of her finger’.
Abstract *vy-* ‘completion of process’: *Vyxodili vse zaly muzeja* ‘They visited all the museum galleries’.
- Za- Spatial *za-* ‘action beyond a given point’: *Zabežala k nam po doroge domoj* ‘She dropped in on us on her way home’.
Abstract *za-* ‘commencement of action’: *Mostki zaxodili pod nogami* ‘The planks shifted under our feet’.¹⁹

¹⁸ An exception to the pairing of +ITER form with abstract prefixes is seen in *Protiskali škof v dver'* ‘They squeezed the wardrobe through the doorway (in several tries)’, where the verb has +ITER shape but the prefix still has a spatial sense.

¹⁹ As for other prefixes, *v-* has mostly spatial senses, almost no abstract senses elicited by a +ITER V. However a reviewer calls attention to *vbégat'sja* ‘be trained to race’, as in *Rysak ne vbégalsja ešče* ‘The trotter hasn’t learned to run yet’, in Vladimir Dal’s *Tolkovyj slovar' živogo velikoruskogo jazyka*. *Vz-* has spatial meaning in *Vsplyl Petropol', kak triton* ‘St. Petersburg rose up like Triton’ but does not occur with an independently generated +ITER V. *Voz-* has the abstract meaning of inception in *vozljubit*, but it does not occur with +ITER thematization, i.e., no **vdrug vzbégaet* ‘suddenly start to run’. *Nad-*, *pod-*, and *pri-* share the abstract meaning of limited extent, for example, in *Nadkusila ogurec* ‘She took a bite of the pickle’, *Seno podmoklo* ‘The hay got wet’, and *Cvety privojali* ‘The flowers faded’. But again there is no pairing of these meanings with non-SIR +ITER thematization. Next to spatial *pod-* in *podplyvët k pristani* ‘sail up to the wharf’ there is no abstract *pod-* as in **podplavaet* ‘do some sailing’. *Niz-* ‘down’ is only spatial.

The inclusion of *po-* in the above list calls for commentary. My claim that *po-*verbs like the other prefix-verb compounds show a spatial sense in the *-ITER* compound and an abstract sense in the *+ITER* compound is counter to the consensus of Russian grammars and dictionaries, which is that *po-* has only abstract senses, no spatial sense, and that with Verbs of Motion the abstract sense is inceptive. The dictionary entries for *po-* plus *-ITER* Verbs of Motion uniformly give ‘begin to ...’ as the first gloss and list examples of this sense such as *Pošel dožd* ‘It started to rain’, *Ponēs vsjakuju čuš* ‘He started talking rubbish’, and *Brosilsja v vodu i poplyl* ‘He dove into the water and started swimming’. But they also give examples that are not inceptive such as *Povela reběnka v Detskij sad* ‘She took her child to kindergarten’, *Mjačik pokatilsja na mostovuju* ‘The ball rolled out onto the roadway’, and *Polez v karman* ‘He reached into his pocket’. In the latter examples the spatial (directional) sense in the prefix is supported by the accompanying goal expression.

A spatial *po-* is further supported by the aspect pair *+Pfv povedët ~ -Pfv povodit (plečami)* ‘shrug’, which patterns like the other Verbs of Motion in that with spatial prefixes they occur in both aspects—*perevezët ~ perevozit* ‘transfer’, *otnesët ~ otnosit* ‘carry away’, etc.—but with abstract prefixes, for example, *+Pfv zabégaet, dokataetsja, povodit*, they lack *-Pfv* counterparts.

The polysemous verbal prefix *po-* invites comparison with the likewise polysemous preposition *po*. In *po ulice* ‘along the street’ and *po gorodam* ‘across cities’, *po* denotes distribution along a dimension and over multiple objects. It shares a sense with the *po-* of *povela, pokatilsja, and polez*, which is roughly ‘along’. On the other hand, the delimitative *po-* of *povodili* shares a sense with the *po* of *po pojas v vode* ‘up to the waist in water’ and *po pjatoe maja* ‘until May fifth’, which also express a limit.²⁰

10. Multiple Prefixation

Verb forms may have more than one prefix. This happens when [V P V] instead of being lexicalized is expanded to [V [P P P] V] by the rule $P \rightarrow P P$ and then lexicalized. This gives us *doizberët* ‘finish choosing’, *pereraspredelit* ‘redistribute’, *podzarastët* ‘grow a little’, and *priotkroet* ‘open slightly’. The prefix clusters *doiz-*, *pereraz-*, *podza-* and *priot-* have the same syntactic function as the simple prefixes *iz-*, *raz-*, *za-*, and *ot-*. They provide the environment for the SIR, which when it applies yields *doizbiraet, pereraspredeljaet, podzarastaet, and priotkryvaet*.²¹

²⁰ For a fuller discussion of *po-* and *po* see Gladney 2013: 644–45.

²¹ Tatevosov (2009: 138). rejects the idea of prefix clusters. A prefix cluster (*prifiksal’nyj kompleks*) for him is only “when we have a single morpheme consisting of two”. But *do-* and *-iz-* in *doizberët* although immediate constituents remain discrete morphemes.

Multiply prefixed verb forms have a different structure when the V of [_V P V] is expanded by the rule $V \rightarrow P V$ for the structure [_V P [_V P V]]. Verb forms with this structure include *porazbégajutsja* ‘scatter’, *navydumyvaet* ‘make up (many stories)’, and *peresprašivaet* ‘question (many people)’. In these forms a +ITER thematization conditions an abstract sense in the prefix just as it does in *pobégaet* ‘run (a while)’, *navozit* ‘get in (a supply of)’, and *pererešaet* ‘solve (many problems)’. All six forms have the structure [_V P V] except that in the first three V has the expanded structure [_V P V].

11. Aspect in Unprefixed Verbs

If aspect, as I claim, hinges on the grammaticalization of +ITER thematization in the environment of a prefix, how do we account for in the absence of a prefix? The two dozen or more verbs like /bros/ ‘throw’ which can occur in a +PFV predicate without a prefix cannot simply be listed in the lexicon as exceptions.²² Lists of exceptions, such as ablauting verbs in Russian or strong verbs in English, tend to grow shorter with time, but this is not happening with +PFV-compatible unprefixed verbs. Besides, there are verbs like /krik/ ‘shout’ which with thematic /n/ (*kriknet*) have the same distribution. They are productive and so cannot be reduced to a list. To understand the +PFV-compatibility of unprefixed verbs we must examine their form (thematization) and their meaning.

12. +N Verbs

Verbs like /krik/ pose a quandary for the Academy Grammar. It calls them “unpaired (*nesootnositel’nye*) perfective verbs” (§1421), but it defines verbal aspect as “the system of two opposed sets of verb forms”, +PFV forms and –PFV forms (§1386). *Kriknet* is +PFV—it does not combine with *budet*—but rather than being aspectually paired with –PFV *kričit*, it is said to be paired with it on the quasiaspectual dimension of aktionsart. It is called the semelfactive of *kričit*, derived from it with the semelfactive suffix /nu/. This /nu/ is contrasted with an inchoative suffix /nu/ which occurs in –PFV forms like *slabnet* ‘grow weak’.

In the descriptive framework of this paper, verb forms like *kriknet* have the same [_V V E] structure as other unprefixed verb forms. With *kričit* it shares the lexical structure [_V [_V /krik/] [_E /t/]]. The two forms differ because unprefixed /krik/ is specified in the lexicon for +N thematization in a +PFV predicate

Immediate constituency is a necessary condition for morpheme fusion but not a sufficient one.

²² Their number varies according to how we analyze verb forms. We recognize fewer unprefixed verbs when we appreciate Karcevski’s observation (1927: 100) that speakers will treat the initial portions of verb forms as prefixes whenever possible.

and otherwise for +Ě/PAST thematization. The +N feature triggers thematic /n/, which entails thematic /o/ and /e/ in nonpast environments and thematic /ou/ in past environments.²³ In a –PFV predicate the +Ě/PAST feature means *kričit* in the nonpast and *kričal* in the past. Recognizing the phonemes separating verb from ending in *kriknet* and *kriknul* as the results of thematization spares us having to decide whether a suffix /nu/ has an /n/ allomorph or whether /nu/ undergoes truncation before a vowel in nonpast forms.

There are reasons to question a semelfactive /nu/ suffix. Among the dozen or so aktionsarten that have been proposed for Russian, this would be the only one expressed by a suffix. Suffixes as a rule head the word and determine its category. The adjective suffix /ɫn/ makes *snežnyj* ‘snowy’ an adjective. The verbal suffixes /ir/ and /iz/ recategorize the lexical noun /regul/ and the lexical adjective /real/ respectively as verbs: *reguliruet* ‘regulate’ and *realizuet* ‘realize’. But /krik/, as in *kričit*, is already a verb, and *kriknet* is not a recategorization.

Second, as Plungian (1998: 376) observes, derivational affixes are normally shared by aspectually paired verb forms. For example, the prefix *pere-* is common to +PFV *pereprygnet* ‘jump over’ and its –PFV counterpart *pereprygivaet*. But the putative /nu/ of +PFV *vzgljanět* ‘glance’ does not occur in –PFV *vzgljadyvaet*, which suggests that it does not pertain to derivation.

Furthermore, the claim that *-n- ~ -nu-* is a semelfactive suffix is undercut by its functional identity with the *-n-* of *vstanet* ‘stand up’ and the underlying /n/ of *sjadet* ‘sit down’ and *ljažet* ‘lie down’. With these three verbs /n/ does not occur in their prefixed –PFV forms. In +PFV *vstanet* ‘arise’ /n/ is verb-final, and being between vowels it makes it to the surface, providing a bridge between long unproductive /n/ infixation and productive postroot /n/ thematization. In +PFV *zasjadet* ~ –PFV *zasedaet* ‘sit down’ and +PFV *poljažet* ~ –PFV *polegaet* ‘be lodged (of standing crops)’, the roots are structured /CVnC/ and so /n/ is reflected only in the alternation of the root vowels.

Finally, since a semelfactive /nu/ suffix in *kriknet* is tied to a contrasting inchoative /nu/ suffix in *slabnet*, if the difference between the two forms can be shown to be predictable from the meaning of the verb (see below), their suffix status is undermined.

13. Punctual and Durative Actions

Since the aspectual patterning of unprefixated verbs depends in part on meaning, a closer look at meaning is called for. To begin with, verbs may denote activities or states, and activities may be punctual or durative. A cough is punctual and breathing is durative. Hence in English the verbs cough and breathe differ in what is known as their lexical aspect, one punctual, the other

²³ Thematic /ou/ is realized as *ov* before a vowel, e.g., in *prikosnovenie* ‘a touch’; compare *prikosnuľsja* ‘touch’.

durative. Their grammatical aspect may vary according to sentence context. A durative activity like breathing may be presented as punctual. *Suddenly at 4:15 she breathed* is understood punctually as ‘took a breath’ or ‘started breathing’. But punctual activities do not admit a durative reading. *He coughed for two seconds* is understood as iterated coughs, not as a single protracted cough. And although *I heard him cough* can refer to both a single and multiple coughs, *I hear him cough* has only the multiple reading.

The verbs for coughing and breathing in Russian likewise differ in lexical aspect, /kašlj/ ‘cough’ being punctual and /dyx/ ‘breathe’ durative. The situation in Russian is complicated by the interaction of lexical aspect with grammatical aspect. Perfective aspect, which presents the activity in terms of completion, combines with lexical aspect straightforwardly: *On kašljanul* ‘He coughed’ denotes a single cough. On the other hand, imperfective aspect, which presents the activity as ongoing, does not readily combine with punctual verbs because punctual activities have no duration. –PFV *kašljaet* does not denote a cough in progress, only iterated coughs.²⁴ With durative verbs, +PFV parcels the activity into discrete events: *On doxnul* ‘He took a breath’; also *On doxnul tri raza* ‘He took three breaths’. –PFV *dyšal* denotes ongoing breathing. *On dyšal tri minuty* ‘He breathed (for) three minutes’ is okay, but *On dyšal tri raza* ‘He breathed three times’ is hard to interpret.²⁵ If these meanings are predictable from the meaning of ±PFV in combination with punctual and durative lexical aspect, it is not clear what additional meaning elements /n/ forms have which support a semelfactive aktionsart. I do not see how *Ona švyrnula kamen’ v vodu* ‘She flung a stone in the water’ with a semelfactive /nu/ would differ grammatically from *Ona broсила kamen’ v vodu* ‘She threw a stone in the water’.

14. Activity Verbs

Russian has a productive class of +N verbs that have +PFV forms with thematic /n/ and –PFV forms with other thematizations. Some of them have punctual lexical aspect, so their +PFV forms denote single events and their –PFV forms denote iterations. This group includes /bod/ ‘stab’, /bryzg/ ‘splash’, /bryk/ ‘kick’, /bux/ ‘thump’, /čix/ ‘sneeze’, /drog/ ‘shake’, /glot/ ‘swallow’, /gryz/ ‘bite’, /kač/ ‘rock’, /kap/ ‘fall’, /kašlj/ ‘cough’, /kleu/ ‘peck’, /kol/ ‘poke’, /kozyrj/ ‘salute’, /koleb/ ‘rock’, /kus/ ‘bite’, /kyd/ ‘throw’, /morg/ ‘blink’, /pleu/ ‘spit’, /sverk/ ‘flash’, /švyrj/ ‘fling’, /vilj/ ‘wag’, and /zev/ ‘yawn’. Others have durative lexical

²⁴ I am aware that when single completed actions are narrated they end up as present-tense imperfectives. In the Russian counterpart *He cleared his throat, coughed, and took a deep breath*, “coughed” is +PFV *kašljanul*, But in the narration corresponding to *He clears his throat, coughs, and takes a deep breath*, “coughs” is –PFV *kašljaet*. But this does not support a durative reading of *kašljaet*.

²⁵ A reviewer suggests the translation ‘He took three Breathalyzer tests’.

aspect, so their +PFV forms parcel the activity into individual episodes and their –PFV forms denote ongoing activity. This group includes /dvig/ ‘move’, /du/ ‘blow’, /gläd/ ‘look’, /kos/ ‘touch’, /krik/ ‘shout’, /liz/ ‘lick’, /maz/ ‘smear’, /risk/ ‘risk’, /rug/ ‘scold’, /sou/ ‘shove’, /trog/ ‘touch’, and /xoxot/ ‘guffaw’. With reference to Vendler’s (1967) four-way classification of events into states, activities, accomplishments, and achievements, these verbs, whether punctual or durative, all denote activities.

15. Stative Verbs

Contrasting with the above are +N verbs whose /n/ forms are –PFV. They include /blek/ ‘faded’, /brjuzg/ ‘swollen’, /bux/ ‘swollen’, /dox/ ‘dead’, /drog/ ‘chilled’, /gas/ ‘extinguished’, /glox/ ‘deaf’, /gork/ ‘rancid’, /gruz/ ‘sunken’, /gyb/ ‘lost’, /lip/ ‘sticky’, /molk/ ‘silent’, /pax/ ‘smelly’, /pux/ ‘swollen’, /sip/ ‘hoarse’, /slab/ ‘weak’, /sox/ ‘dry’, /väd/ ‘withered’, /vis/ ‘hanging’, /xrip/ ‘hoarse’, and /zäb/ ‘cold’. The Academy Grammar (§835) says these verbs mean ‘acquire the characteristic named by the motivating adjective’, so I gloss them as adjectives. Their adjectival character is brought out by nearly all of them forming *-lyj* adjectives: *blëklyj*, *obrjuzglyj*, *nabuxlyj*, *doxlyj*, *zagloxlyj*, *gorklyj*, *ogrizzlyj*, *giblyj*, *naliplyj*, *puxlyj*, *siplyj*, *soxlyj*, *vjalij*, *vislyj*, *xriplyj*, and *zjablyj*. None of the activity verbs in the previous section form *-lyj* adjectives. All these items qualify as Vendler’s states. That the past-tense forms of stative verbs do not have /n/ (*blëkli*, *zjabli*) but the past-tense forms of activity verbs do (*kriknuli*, *prygnuli*) is because /n/ is a verbal theme and stative verbs are less verbal than activity verbs. Note also that verbal *-nu-* never occurs in *-lyj* adjectives: no **blëknulyj*.

Several +N verbs have both stative and activity meanings and accordingly both –PFV and +PFV forms: stative –PFV *dóxnēt* ‘die’ (of animals),²⁶ *drognēt* ‘be cold’, *páxnēt* ‘smell’, and *xripnēt* ‘go hoarse’, contrasting with activity +PFV *doxnēt* ‘take a breath’, *drognēt* ‘flinch’, *paxnēt* ‘blow’, and *xripnēt* ‘say (something) hoarsely’.²⁷ These forms do not support the existence of two distinct /nu/ suffixes because the consistent alignment of /n/ forms denoting activities with +PFV aspect and of /n/ forms denoting states with –PFV aspect is evidence for a single +N feature patterning differently according to the meaning of the V.

16. DET(erminate) Verbs

Thematic /n/ has an affinity with +PFV aspect: it makes a verb +PFV-compatible if it denotes an activity. Thematic /i/ (not accompanying *o*-ablaut as in *nosit*,

²⁶ /dox/ acquired this meaning from the meaning it has in combination with the prefix *iz-*, as in *izdoxnēt* ‘die (of animals)’. See Vaillant 1946: 13.

²⁷ On the other hand, /bux/ ‘swell’ and /bux/ ‘thump’ are simply homonyms.

etc.) also shows this affinity, conditioning +PFV compatibility in a number of verbs discussed below. Of course a much stronger affinity with the +PFV aspect is shown by prefix-verb compounds (Meillet 1934: 291), which are +PFV-compatible except for a few isolated cases with verbs denoting states, such as *nadležít* 'is required' and *obstoít* 'be'. Thus prefixation, thematic /n/, and thematic /i/ share a feature DET(ermine). The DET feature, although not sufficient for a verb form to be +PFV-compatible, is a necessary one, as no unprefixated verb can be used perfectly if it is -DET. Contrasting with the +DET feature is the +ITER feature, which has a corresponding affinity with -PFV aspect.

The features ITER and DET invite combining into a single binary feature, ±ITER or ±DET. Certain forms point to DET as the feature for which verb forms are positively marked. *Liznět* 'lick' and *xoxotnět* 'guffaw' are clearly +DET vis-à-vis -DET *ližet* and *xoxočet*. For the Verbs of Motion, *idět*, *nesět*, *polzět*, and *taščít* are considered +DET vis-à-vis -DET *xodít*, *nosít*, *polzaet*, and *taskaet*. From the standpoint of form, however, *xodít*, *nosít*, *polzaet*, and *taskaet* are marked +ITER vis-à-vis unmarked *idět*, *nesět*, *polzět*, and *taščít*. Likewise with prefix-verb compounds, -ITER *zanesět* 'bring', *zabežít* 'drop by, running', and *pereprygnet* 'jump across' are unmarked vis-à-vis marked +ITER *zanosít* 'wear out', *pobégaet* 'run a little', and *pereprygaet* 'traverse with iterated hops'. It seems neither ±ITER nor ±DET by itself will account for the facts and both are needed. Verbs with three thematizations need both features. For /bros/ 'throw', *brosaet* is -DET with regard to +DET *brosít* and -ITER with regard to +ITER *vybrasyvaet* 'throw out'. For /krik/ 'shout', *kričít* is -DET with regard to +DET *kriknet* and -ITER with regard to +ITER *vykrikivaet* 'cry out'. For /kač/ 'rock', *kačaet* is -DET with regard to +DET *kačnět* and -ITER with regard to +ITER *otkačivaet* 'revive'.

17. +DET with Other Verbs

The affinity of +DET thematization with +PFV aspect is worth exploring for other verbs. Among the +DET verbs of motion, the thematization pattern of *plyvět/plavaet* 'float' and *polzět/polzaet* 'crawl' functions aspectually uniquely in +PFV *padět* ~ -PFV *padaet* 'fall'.²⁸ However, the thematization of +I +DET *katít* 'roll'

²⁸ A handful of verbs contrast +DET +I forms with -DET +A forms. Although they are not classified among the Verbs of Motion, their +I forms express unidirectional motion and +A forms express multidirectional or iterated motion. They are /klon/ 'incline', /lom/ 'break', /val/ 'roll', and /vorot/ 'turn. In *Veter klonít derev'ja* 'The wind bends the trees' the motion is unidirectionally downward, while in *Sěstry moi tebe klanjajutsja* 'My sisters send their regards' the motion is iterated. In *Bolel'sčiki lomjat na stadion* 'The fans are surging into the stadium' it is unidirectional motion, whereas in *Ledokol lomaet léd* 'The icebreaker is breaking up the ice' it is iterated. In *Tolpa válit na ploščad'* 'The crowd is rushing to the square' the motion is unidirectional, while in *Rebjačiški valjajutsja v snegu* 'The kids are rolling around in the snow' it is multidirectional. And in *Lošadi vorotjat ot sena mordy* 'The horses are refusing to eat the hay' the motion is

and *taščit* ‘drag’ contrasting with +A in –DET *kataet* and *taskaet* has a broader aspectual utilization.

18. Telicity

For a verb form to be grammatical in a +PFV predicate, its being +DET is necessary but not sufficient. It must have a property that I propose to call telicity: it must be +TELIC, have a telos or goal.²⁹ The reason the +DET Verbs of Motion are not +PFV is that they are –TELIC, have no goal. The motions they denote—carrying, leading, conveying, walking, running, shuffling, climbing, riding, floating, crawling, flying, and chasing—are all unidirectional, but they entail no goal. *Polžēt* ‘crawl’ can continue indefinitely without reaching one. The thematically identical *padēt* ‘fall’, on the other hand, has an end point or goal—hitting the ground. Hence +TELIC *padēt* is +PFV while –TELIC *polžēt* is –PFV.

The goal criterion may hold also for a number of +I +DET verb forms. The following +I forms occur in +PFV predicates because they imply a goal. *Blagoslovit* ‘bless’: the goal is putting someone in the state of blessedness.³⁰ *Brosit* ‘throw’: the goal is the launch of a projectile. *Kaznit* ‘execute’: it is irreversible punishment. *Kontuzit* ‘injure’: a serious internal injury. *Krestit* ‘baptize’: the making of a Christian. *Kupit* ‘buy’: the transfer of ownership. *Lišit* ‘deprive’: the termination of possession. *Prostit* ‘forgive’: the cancellation of fault. *Pustit* ‘let go’: termination of holding. *Ranit* ‘wound’: the inflicted wound. *Rešit* ‘solve’: the answer to a problem. *Rodit* ‘give birth’: a new living creature. *Ženit* ‘marry’: the formation of a marriage bond. For another three verbs, telicity is unclear. *Javit* ‘show’: the resulting display. *Stupit* ‘step’: a single discrete step. *Xvatit* ‘grab’: the resulting gain. For *blagoslovit*, *brosit*, *javit*, *kupit*, *krestit*, *lišit*, *prostit*, *pustit*, *rešit*, *rodit*, *stupit*, and *xvatit*, their +PFV value is confirmed by their having +A counterparts in –PFV predicates.

unidirectional, whereas with *Voročal kočergoj v peči* ‘He stirred the stove with a poker’ motion is in various directions. These distinctions like those of the Verbs of Motion are subaspectual.

²⁹ Dickey (2007) has a different use for this term. Applying it to prefix-verb compounds, he contrasts *napisat* ‘write’, which is telic in “impos[ing] an inherent limit (telos) on the writing event beyond which it cannot continue” with atelic *popisat* ‘write for a while’, which has no telos. For me telicity is the property of a verb form that allows it to occur in a +PFV predicate.

³⁰ The fully congruent *blagodarit* ‘thank’ is –TELIC and –PFV perhaps because being thanked does not have the lasting effect of being blessed.

19. Telicity Alone

In the absence of +DET thematization, the occurrence of a verb in a +PFV predicate may be motivated semantically. This is clear in +TELIC /da/ 'give', an action resulting in a transfer of possession, versus -TELIC /zna/ 'know', which is not an action but a state. But for the most productive class of verbs in Russian, those with thematic /ou/, telicity depends on how the speaker views the event. This explains the wide variation in the aspectual patterning of +OU verbs. To take only one example, some speakers consider /arest/ to be -TELIC, occurring in -PFV contexts like *Poxožix ljudej arestujut i privodjat k Mixailu Mixajloviču Gerasimovu* 'People like this are arrested and brought to M. M. G.' This is consistent with its prefixed use in +PFV contexts like *Včera menja zaarestovali za kurenje v nepoloženom meste* 'Yesterday I was arrested for smoking in a nonsmoking area'. Prefixed, it is subject to the SIR, as in *Ego obnaruživajut i zaarestovyvajut* 'He is discovered and arrested', where thematic /ou/ entails +A/PAST, with +Y thematization in the +ITER form. For other speakers /arest/ is +TELIC occurring in +PFV uses like *Mavrodi boitsja, čto ego najdut i siloj arestujut* 'Mavrodi is afraid they will find him and forcibly arrest him'. This +PFV +TELIC use creates the possibility of +ITER +Y thematization, as in *Amerikanske special'nye sily arestovyvajut sataninskiju gruppu pedofilov* 'American special forces arrest a satanic group of pedophiles'. For speakers who have *arestuet* for +PFV contexts but lack *arestovyvaet* for -PFV contexts, /arest/ is marked NO +ITER. This makes it biaspectual, as are other borrowed +OU verbs and a few +I verbs like /kazn/ 'punish', /kontus/ 'contuse', /ran/ 'wound', and /žen/ 'marry', which lack +ITER /a/ thematization and are marked NO +ITER.

20. Summary

The syntactic approach to Russian verbal aspect taken in this paper is based on two main assumptions. First, all the morphemes constituting verb forms—prefixes, roots, suffixes, and endings—are sound-meaning pairings stored in the lexicon which are introduced into the sentence by lexical insertion. None are created in the course of sentence derivation. The sublexical phrase-structure rules $V \rightarrow P V$ and $V \rightarrow V E$ generate the structure $[_V P V] [E]$, which may be lexicalized as $[_V [_V [P /za/] [_V /pis/]]] [E /t/]]$ and realized as *zazpišet* or *zapisyvaet* depending on the aspect of the predicate.

Second, not every phoneme or phoneme string in a verb form is a morpheme or part of a morpheme. The *-yva-* in *zapisyval* results from $[_V [_V [P /za/] [_V /pis/]]] [E /l/]]$ in a -PFV predicate receiving the default thematization /a/, thus $[_V [_V [P /za/] [_V /pis/]]] /a/ [E /l/]]$, and then, since the result would be homophonous with +PFV *zapisal*, an additional thematization for /y/, thus $[_V [_V [P /za/] [_V /pis/]]] /y/ /a/ [E /l/]]$, with the hiatus between the theme vow-

els filled by /v/. If *-yva-* were a suffix, a morpheme stored in the lexicon, there would have to be a grammatical category, say IPFV in a structure like [V [P V] IPFV E], of which /yva/ would be the lexicalization of IPFV. But then the *-a-* of *-PFV spasal* 'saved' would be an /a/ allomorph of /yva/ and we would have to provide for the distribution of the allomorphs. This complication is avoided when we identify the *-a-* of *zapisyval* with the *-a-* of *spasal* and introduce *-yva-* one segment at a time. The question is whether verbal morphology is realizational, where "a word's inflectional markings are determined by the morphosyntactic properties which it carries", or incremental, where "words acquire their morphosyntactic properties only as an effect of acquiring the exponents of those properties" (Stewart and Stump 2012: 384). I opt for the former: *zapisyval* includes *-yva-* because it is *-PFV* and prefixed; it is not *-PFV* because it contains a suffix /yva/.

Central to the workings of verbal aspect in Russian is the Secondary Imperfective Rule (SIR), which assigns the feature +ITER to V when it contains a prefix. Without the SIR, Russian would not have inflectional aspect. There are [V P V] compounds in Russian like [V [P /sʲɔ/] [V /dʲɛl/]] 'do', [V [P /na/] [V /pis/]] 'write', and [V [P /po/] [V /pros/]] 'request' which never undergo the SIR because speakers never employ them in *-PFV* predicates. This is because these prefixes compounded with these verbs are mostly bleached of the meaning they have with other verbs. Whether or not they are entirely empty of meaning, the fact is speakers don't use them in *-PFV* predicates because they find the simple verbs adequate for the intended meaning. If all P-V compounds were like these three, the SIR would never apply and Russian would not have inflectional aspect. It would be like English, where verb-particle combinations have aspectual properties similar to prefixed verbs. *They dragged the log* has an imperfective meaning like its translation *Taščili brevno*, as shown by the time expressions of duration they select, (*for*) *two hours* and *dva časa*. But with the particle *out* (*They dragged the log out*) as with the prefix *vy-* (*Vytaščili brevno*) they select elapsed-time adverbials, *in two hours* and *za dva časa*. But what sets Russian off from English is the SIR, which assigns +Y thematization to [V [P /vy/] [V /task/]] and yields *-PFV vytaskivali*. English has nothing comparable.

The syntactic approach to Russian verbal aspect taken in this paper redefines ±PFV from a feature of individual verbs to a feature of sentence predicates. Therefore the question is How is the verb form morphologically compatible with the aspect of the predicate? If the predicate is +PFV and the verb is prefixed, it is compatible with only a few exceptions like *zavisit* 'depend'. If the predicate is *-PFV* and the verb is prefixed, the SIR adapts it to the predicate. But if the predicate is +PFV and the verb is not prefixed, its grammaticality depends on its form (thematization) and its meaning. The morphological property +DET(ermine) identified with thematic /n/ and to some extent with thematic /i/ is a factor in an unprefixed verb being +PFV-compatible. Ultimately, it comes down to whether the verb form is +TELIC, expresses a telos

or goal. For the many verbs with thematic /ou/ their telicity, hence their +PFV-compatibility, is a matter of how the speaker views the event in question.

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