ACCENT PLACEMENT PRINCIPLES IN RUSSIAN¹

ПРИНЦИПЫ ВЫБОРА СЛОВ-НОСИТЕЛЕЙ АКЦЕНТНЫХ ПИКОВ В РУССКОМ ЯЗЫКЕ

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The basic constituents of intonation structure are pitch-accents. Pitch-accents designate topic-focus distinctions, contrast, and discourse structure. The question arises as to what phonetic words the accents are placed on. This paper gives an account of various accent placement principles in modern Russian.

The basic constituents of intonation structure are pitch-accents. They designate topic-focus distinctions, contrast, and discourse structure. Pitch-accents are placed on the segmental material not in a random way but as properties of the phonetic words that they fall on [Bolinger 1958, 1961; Halliday 1963, 1967a, b; Steedman 2007]. There is a considerable body of literature that assumes that the relevant notions of accent placement are information structure, focus, contrast, or emphasis, i.e. the words bearing pitch-accents refer to either new, or emphatic, or contrasted information (cf. most recent investigations [Jaeger, Wagner (in press); Steedman 2007; Kadmon 2009], and references cited therein²). However, the segmental material referring to either new, or contrastive, or emphatic information is not restricted to one phonetic word. It may rather have complex syntactic structure. The question would then arise as to how the words bearing pitch-accents are selected. Many theories of information structure and accent placement proposed particular sets of syntactic priorities accounting for the selection of the accent-bearer in syntactic structures, such as the priority of the object to the verb ([Schwarzschild 1999]), and the subject to the verb ([Halliday 1967b: 208; Enkvist 1979; Schwarzschild 1999]). But nobody proposed a full hierarchy of syntactic constituents relevant for accent placement. Moreover, the parameters relevant for the accent-bearers selection are not limited to information structure and syntactic hierarchies. Modern Russian displays a number of accent placement principles for which, apart from the information and syntactic structure, some lexical, illocutionary and discourse parameters are also significant. Some of the principles are presumably valid not only for Russian but for a wide variety of languages with no lexical pitch-accents. This paper gives a concise account of accent placement principles in Russian. The formulation of accent placement principles is aimed at being used in oral speech synthesizers.

1. Basic Principle

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² One of the most recent accounts of accent placement given in paper presentation [Kadmon 2009] is based on the notion of 'recoverable' harking back to Kuno's 'predictable' ([Kuno 1978: 282-283]), Halliday's 'recoverable' ([Halliday 1967b: 204]), and Prince's given_p ([Prince 1981] "which is the informational status of a word depending not just on preceding context, but also on its relation to its own utterance". The author also claims that accent placement can be interpreted "at the level of the word alone, without recursive projection or interpretation of a syntactic feature" [Kadmon 2009].

The basic principle of accent placement in topics, foci, constituents of questions and imperatives is in the first place regulated by 1) the given-new distinction [Chafe 1976] (or activation, on the terminology of [Dryer 1996]), and 2) the syntactic structure (the argument structure of the sentence predicate and the sentence syntactic type).

The 'given-new' parameter affects the accent placement in such a way that the items referring to activated (in the mind of the hearer) information should be eliminated from the set of items of which the focus (= the rheme, on Mathesius terminology) accent-bearer is to be selected. For example, the replies in (1) and in (2) with the accents on $\partial emu.Nom^3$ and on $e\partial sm.V_{fin}$ respectively demonstrate the priority of the new information to the activated one in accent-bearer selecting. In sentence (2) the accent-bearer of the reply is the verb because the subject demu is activated in the question. (The accent-bearers in examples below are boldfaced.)

- (1) Чем ты расстроен? **Дети** плохо едят;
- (2) Чем тебя дети расстроили? Дети плохо едят.

Topics can also have accented words carrying specific "topical" pitch-accents. The accent placement in topics (themes) follows similar accent placement principles as the foci. The differences between the focal and the topical accent placement are discussed in [Янко 2008: 60–72].

The syntactic parameter of accent placement is represented by a variety of hierarchies which are determined by the argument structure of the predicate and the sentence structure [Янко 1991; 2008: 43–73]. These hierarchies are 1) the Basic Hierarchy of the predicate and its arguments, and 2) the local hierarchies affecting accent placement in non-terminal arguments (or the arguments which have complements or adjuncts).

1.1. Basic Hierarchy

The basic syntactic hierarchy ranges the sentence components according to the predicate-argument structure. Thus the indirect object in all-new⁴ sentences is prior to the direct object and the subject; the subject is prior to the finite verb, the object No. N+1 is prior to the object No. N, the arguments are prior to the adverbial modifiers, cf. the Hierarchy on Figure 1.

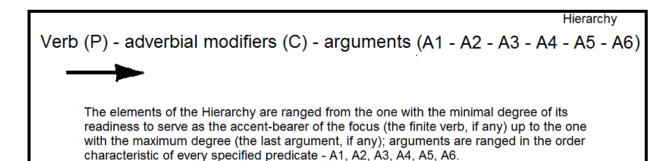


Figure 1. The Basic Syntactic Hierarchy controlling the accent placement in a sentence.

Thus the replies in (3) and in (4) with the accents on *demu.NOM* (A1) and on καιων. ACC (A2) respectively exemplify the priority of the arguments to the predicate, and the object to the subject.

(3) – В чем дело? – **Дети** (A1) плохо едят.

³ The following abbreviations are adopted in this paper: ACC – Accusative, INSTR – Instrumental, NOM –

Nominative, NP – Noun Phrase, V_{fin} – finite verb. ⁴ About all-new (or thetic, on the terminology of V. Mathesius) cf. [Баранов, Кобозева 1983; Sasse 1987; Николаева 1996: 53], and literature cited therein.

(4) — В чем дело? — Дети **кашу** (A2) плохо едят.

The second sentences in examples (5)-(10) exemplify a number of priorities determined by the Basic Hierarchy:

- (5) Чем ты расстроен? Бабушка (A1) в дороге (C) **очки** (A2) сломала (P);
- (6) Почему пусто в отделе? Директор (A1) пять человек (A2) в Москву (A4) для обмена **опытом** (A5) командировал (P);
- (7) Ты куда? **Обедать** (A2) пора (P);
- (8) B чем дело?> **Денег** (A) нет (P);
- (9) Худо, брат, жить в Париже. **Есть** (A) нечего (P) (Pushkin);
- (10) Мальчики платья не носят. **На горшок** (A2) неудобно (P) (from children's speech).

In addition to activation and syntax, some other parameters may take effect in accent placement. For instance, the parameter of idiomatic filling the argument position may produce an accent placement distinct from the one in a formally identical but non-idiomatic phrase. Thus sentence (11) with the idiom $exodumb \ e \ cuny$ 'come into effect' (lit. 'come into power') has the subject existsin accent-bearer. Here, the "privileged" accent-bearer licensed by the basic Hierarchy is the object, while within the idiomatic phrase $exodumb \ e \ cuny$ the desemantisized object concedes its right of the accent-bearer to the subject which is previous to the object in the Hierarchy.

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(11) — В чем дело? — Новый закон (A1) в силу (A2) вошел.
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Thus example (11) shows that idiomatic expression may violate the main principle of accent placement.

Accent placement is also affected by the Animacy hierarchy in such a way that the non-prototypical argument expression may change the primary priority of elements within the Basic Hierarchy. For instance, an animate – non-prototypical – object may give its right of the accent-bearer to an inanimate – non-prototypical – subject. For example, the pair of sentences (12) with the prototypical accent-bearer the object мышку. ACC and (13) with the non-prototypical accent-bearer the subject cosecms. NOM exemplify the derived priority of the non-prototypical subject to the non-prototypical object displayed by sentence (13).

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(12) — В чем дело? — Кошка (A1) мышку (A2) мучает.
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Finally, the accent placement may also be affected by the parameter of syntactical complexity of a focus which can consist of more than one phrase having no dominating category in the immediate constituents tree. For instance, in (14) the reply with the focus *Xapmman & 1882 году* consists of the two NPs *Xapmman.NOM* and *& 1882 году* (lit. 'in the 1882th year'). These NPs have no shared immediate dominating node. (The focus in (14) below is underlined.)

(14) – Кто еще занимался этой проблемой? – Этой проблемой занимался Хартман в 1882 году.

In (14), there are two accents within the focus – the sentence-final focal accent on the accent-bearer of the constituent в 1882 году and the non-final accent carried by the constituent Хартман [Янко 2008: 50].

1.2. Accent Placement in Coordinate Phrases and in Phrases with Complements or Adjuncts

If the selected element – be it a subject, an object, or an adverbial modifier – includes coordinate phrases, complements or adjuncts (dependent elements), additional local hierarchies allow for selecting *Ванечка* in (15) *Танечка и Ванечка*, *Иванов* in (16) *Вася Иванов*, *гостей* in (17) ждем гостей дорогих, and белье in (18) грязное белье стирать, cf. [Ковтунова 1976: 146, Русская грамматика 1982, II: 203–206; Светозарова 1993; Кодзасов 1996: 202]:

- (15) Танечка и **Ванечка**;
- (16) Вася **Иванов**;
- (17) ждем гостей дорогих;
- (18) грязное **белье** стирать.

Accent placement in English compound NPs is discussed in [Zwicky 1986].

The rules based on the local hierarchies are employed recursively until the terminal node is obtained.

1.3. Accent Placement of Contrast

Accent placement in sentences which include contrastive or emphatic components demands a specific consideration. In sentence (19) the accent-bearer of the focus is the word *Bacs*, while in (20) with no contrast the accent-bearer is the family name *Иванов*. Similarly, in (21) the accent-bearer is the emphatically stressed verb *не хотелось* 'did not want', while in (22) the accent-bearer of a focus is the object *берее*.

- (19) Это Вася Иванов, а не Ваня Иванов.
- (20) Это Вася **Иванов**.
- (21) Не хотелось мне переходить на другой берег.
- (22) Мне не хотелось переходить на другой берег.

The contrastive and emphatic foci (and topics) are regarded here as non-violating the Basic Principle because they change not the syntactic principle of the accent-bearer selection, but only the boundaries of the foci (or the topics). For instance, in (19) the contrastive focus is the word *Baca*, and therefore it is accented. Whereas the first occurrence of the word *Hbahob* here belongs to the topic as being activated in the mind of the hearer, and it therefore remains unstressed. In sentence (20), however, the focus is *Baca Hbahob* with the accented word *Hbahob* in full accord with the local hierarchy viewed in Section 1.2. Consequently, both cases totally agree with the Basic Principle as presented in Sections 1.1 and 1.2. Similarly, in (21) the emphatic focus is the prosodic group *he котелось*, and thus the verb *котелось* is stressed. In sentence (22), however, the focus is the verb phrase *he котелось переходить на другой берег* 'did not want to pass to the opposite bank', therefore the accent-bearer is the word *берег* 'river bank'. This accent placement also strictly follows the Basic Principle. About accent-bearers in contrastive components of sentences cf. [Янко 2008: 58].

The Basic Principle of accent placement is the main but not the only accent placement principle relevant for Russian. A question arises as to whether there are accent placement types deviating from the basic priorities. At various discourse levels some peripheral principles are taking effect. These are:

- the principle based on the linear order of the words in a sentence;
- the principle based on accenting the illocutionary markers in a variety of specific speech act types;

- the principle relevant for the Russian colloquial speech which employs an additional (unspecified by the Basic Principle) accent-bearer to designate text incompleteness, i.e. the meaning of 'to be continued';
- accent placement types relevant for various cultural traditions, such as chanting, praying, verse reading, and begging.

These principles are considered in Sections 2-5 respectively.

2. Linear principle

The linear principle is employed in more than one-word Russian vocatives, imperatives and exclamations which are composed with additional illocutionary meanings, such as gentle reproaching, or persuading or, on the contrary, with insistent urging to do something, indignation, or anger. This principle is based on positioning the frequency peak sentence-initially, or, on the contrary, sentence-finally, irrespective of syntactic priorities. For instance, when addressing a person, close to the speaker either psychologically or in space, the accent moves to the "left". Consider sentences (23) with the accent on *Марья* and (24) with the accent on *Ивановна* respectfully:

- (23) Марья Ивановна! Ну как же это вы так неосторожно?!
- (24) Меня зовут Марья Ивановна.

Here, in vocative sentence (23) which expresses a sympathetic reproaching the accent-bearer in the name *Марья Ивановна* is the first name *Марья*. However, in sentence (24) which is a simple statement with no any attendant illocutionary meanings the accent-bearer is the sentence-final patronymic name *Ивановна*, as the Basic Principle demands.

Similarly, in (25) which designates a gentle reproach the accent-bearers are the sentence-initial words *ваша* and $\kappa a \kappa$, while in the corresponding sentences (26) which is a simple statement and (27) which expresses indignation the accent-bearers are the words $\nu e c m b$ (cf. (26)) and $\nu e c m b$ (cf. (27)) respectively:

- (25) Ваша честь! Ну как же так?! Мы же осуждаем невиновного!
- (26) На карту поставлена ваша честь.
- (27) Как же **так**?! Это возмутительно!.

In sentence (28) which expresses gentle persuading the accent-bearers are the sentence-initial words the adjective $MODO\partial O\tilde{u}$ and the imperative Kynume:

(28) Молодой человек! Купите букетик!

Whereas in a more persistent turning a looker to buy something the accent-bearer is the sentence-final object:

(29) Купите букетик; Гоните рублики.

The "left shift" in Russian vocatives was examined in [Кузьмичева 1964; Светозарова 1993]. In English and German vocatives, a similar "left" shift is inapplicable:

(30) *Your Honour!; *Young man!; *Mister Johnson!; *Herr Janzen!; *Frau Müller!; *Doktor Kozak!; *Liebe Kollegen!; *Marie-Luise!.

About accent-bearers in German vocatives cf. [Палько 2009]. Thus the "left" shift in vocatives is a specific Russian typological feature.

A symmetric "right" shift is also applicable to speech acts occurring within either space or psychological distance between the interlocutors. However, the result of it generally coincides with the accent placement governed by the basic rules, because in statistical majority of cases the accent-bearer, irrespective of possible extraneous meanings (either space remoteness, or anger, or indignation, or sharp rebuke), the accent-bearer remains sentence-final. Nevertheless, the minimal pair (31) proves that a remote call follows not the Basic Principle, but the linear one:

(31) а. Дорогие гости-и! К столу-у! vs. b. Гости дорогие-е! К столу-у!

In (31b), the accented sentence-final adjective *dopozue* demonstrates that the accent placement here follows the linear principle because the "syntactic" (or the "basic") accent-bearer in (31b) would be not the word *dopozue* but the word *zocmu*.

In sum, the linear accent placement principle is employed in Russian to designate the distance between the interlocutors. Within the short distance communication the accent-bearer is sentence-initial, whereas within the remote distance communication the accent bearer is sentence-final.

3. "Illocutionary" Principle

The "illocutionary" principle presumes that in certain specific illocutions (dreaming, being puzzled, recollecting, urgent requests) the accent placement can follow individual rules, cf. sentence (32) with the accent on the object δημερδροδικ. ACC and sentence (33) with the "basic" accent on the adjunct κοπδαcκοῦ. INSTR:

- (32) Вот бы нам сейчас дали бутербро-одик с колбаской!
- (33) Мама дала мне с собой в школу бутербродик с колбаской.

The accent placement in (32) obviously violates the Basic rules.

The rules of individual accent placement are based on 1) the taxonomy of illocutionary meanings, and 2) the syntactic taxonomy of noun groups. The taxonomy of speech acts and noun groups specify the types of sentences demanding a shift. For instance, sentence (32) displays the accent shift within the object NP from κοπδαςκοῦ to δημερδροδικ because (32) expresses a specific state of dreaming. Whereas in (33) that is just a statement not combined with any possible attendant illocutionary meanings the accent-bearer within the object (which, in its turn, has a syntactic structure of a noun group with an adjunct) is the word κοπδαςκοῦ. It is selected in full accord with the Basic Principle.

Thus dreams and recollections are characterized by the following accent shifts. In an NP which itself is a privileged accent-bearer in terms of the Basic Hierarchy and has dependent nodes the accent moves from 1) the family name to the first name (cf. examples (34) where (34a) is a sentence of dreaming, while (34b) is an ordinary statement) and 2) from the complement (or the adjunct) to the head (cf. examples (35)):

- (34) а. Вот бы к нам сейчас сюда Ва-асю Иванова! b. Я сейчас приведу сюда Васю Иванова;
- (35) а. Вот бы сейчас пирожко-ов с капустой! b. Мама дала нам с собой пирожков с капустой.

However, there are no any expected shifts from the noun to the adjective (cf. (36)), from the patronymic to the name (cf. (37)), from the name to title (cf. (38)), and from the second coordinate group to the first coordinate group (cf. (39)):

- (36) *Вот бы сейчас квашеной капустки!
- (37) *Вот бы к нам сейчас сюда Виктора Ивановича!
- (38) *Вот бы к нам сейчас сюда сержанта Иванова!;*Вот бы к нам сейчас сюда почтальона Печкина!
- (39) *Вот бы к нам сейчас сюда Танечку и Ванечку!

The accent-bearers here are the same as those selected by the Basic Principle:

(40) Вот бы сейчас квашеной **капустки**!; Вот бы к нам сейчас сюда Виктора **Ивановича** / сержанта **Иванова**! / почтальона **Печкина**! / Танечку и **Ванечку**!

Accent shifts are also displayed by sentences of identification:

(41) Да это ж **Вася** Иванов!; Алё, здраствуйте, это **Вася** Иванов, вы меня помните?; Еще ж **Васи** Иванова не хватает. Он придет?

In sentences with illocutionary markers $\kappa a \kappa o \tilde{u}$, $\kappa o \epsilon \partial a$, $\kappa y \partial a$ designating hesitation, distrust, or being puzzled the accent-bearer is the illocutionary word:

(42) И **куда-а** только он запропастился, не знаю!; И **кака-ая** еще может быть прогулка в такую погоду, не представляю себе?!

The accent placement in the sentences where the words κακοῦ, κορθα, κyθα are complementizers follows the basic rules:

- (43) Не знаю, куда он запропастился; Не представляю себе, какая прогулка может быть в такую погоду.

 In urgent requests the accent moves from the object to the imperative:
- (44) *Ну купи* мне эту куклу, ну пожалуйста; **Зайдите** к хирургу; Не **забывайте** свои вещи. Cf. the basic selection in (45):
- (45) Купи мне, пожалуйста, эту куклу; Зайдите к хирургу; Не забывайте свои вещи.

Thus in dreams, recollections, hesitations, identifications, and insistent requests the accent placement may differ from the basic one. The accent placement principles in such sentences are based on the speech acts taxonomy and the syntactic classification of noun groups.

4. Text Principle

A sentence as an element of a coherent discourse can conclude specific markers designating text incompleteness. For example, in sentence (46) the fall on the object $nu\partial \mathcal{M}a\kappa$. ACC is a focus marker, whereas the rise on the verb CHRR. V_{fin} designates text incompleteness, cf. Figure 2. (The rises and falls of frequency in examples below are marked by up and down arrows respectively. The arrows are placed after the words carrying pitch-accents. The context of the sentences in question is enclosed in angle brackets)

(46) Я тогда **пиджак снял** →, <на **почту** поскорее **побежал** →, жене телеграмму о снижении цен на фрукты > дал →. Потому что личный покой прежде всего.

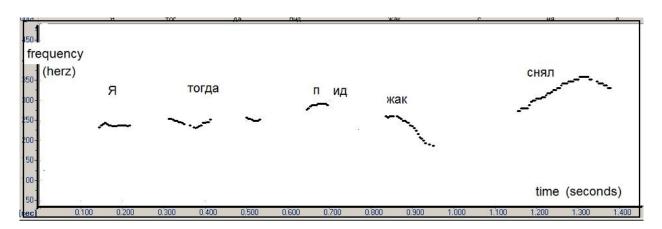


Figure 2. Frequency tracing of sentence (46).

Thus the accent-bearer of the focus the object $nu\partial nca\kappa$ follows the Basic Principle. Whereas the rise on the finite verb can be accounted for only by positing an additional and autonomous accent-bearer to designate text incompleteness. The finite verb as a marker of text incompleteness is positioned sentence-finally and its selection is not governed by the basic rules. In English this type of accent placement is obviously barred, in Russian, however, it is highly frequent in colloquial speech:

(47) Я из комнаты выхожу , когда вхожу, она уже наполовину пустая; И когда обратно уже бежали , ммм сейчас...; И вот во сне меня какое-то чувство страха с

5. Culturally bound principles

Intonation of begging, praying, verse-reading is characterized by pitch-accents and accent placement principles distinct from the basic ones. For instance, the Russian traditional Orthodox liturgical reading has specific intonation that differs from that of everyday speech or from that found in other liturgical traditions⁵. A number of questions then arise:

- what does such intonation express?
- what type of pitch-accents does it have?
- what words do the pitch-accents fall on?

The analysis below is based on recordings of the Morning and Evening cycles of prayers recited by contemporary Russian priests in Church Slavonic. I argue that the Russian liturgical intonation does not express illocutionary or any other language-specific distinctions. It only serves to divide a prayer into lines and a series of prayers into single prayers. The marker of a line is a rise on the tonic syllable of the initial phonetic group followed by high and level groups up to the end of the line. Thus in line (48) the accent on *ангельскую* marks the onset of the line, while the default accent-bearer *песнь*, "inherited" from the Basic Principle, can remain unaccented, cf. Figure 3.

(48) ...и ангельскую песнь вопием Ти, Сильне...

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⁵ The Russian traditional Orthodox liturgical prosody has been thoroughly investigated in [Прохватилова 1999]. In my paper I am only attempting to answer the question what are the words carrying pitch accents in this reading.

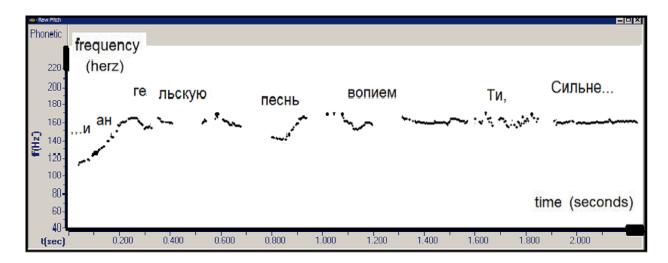


Figure 3. Frequency tracing of example (48).

The marker of a prayer is a similar rise and longer duration on the terminal phonetic group of a prayer. Thus in line (49) the accent on *πyκαβα20* marks the end of the prayer (while the accent on *μ3δαβμ* designates the onset of the line), cf. Figure 4.

(49) ...но **избави** насъ от **лука-ава-аго-о-о**.

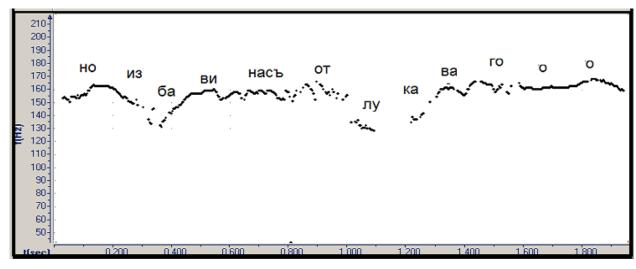


Figure 4. Frequency tracing of example (49).

Thus the Russian liturgical reading has a highly concise system of intonational text-segmenting, whereas many other liturgical traditions preserve all language-specific distinctions.

6. Conclusion

The account of accent placement principles proposed here shows that the Basic Principle is not the only one in oral discourse: within the constraints imposed by the context, the accent placement can be also governed by a diversity of peripheral intonational strategies.

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