

Russian personal pronouns in Syntax and Phonology

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Abstract

We want to know how far the syntactic positions of Russian personal pronouns affect their phonological properties. To this aim we will examine the phonological behaviour of the pronouns first in three structural slots within the sentence and then in a right-peripheral position, thus in the position which is associated with sentence stress.¹

1. First Experiment

1.1. Background assumptions

We depart from Rappaport's (1988) idea that Russian pronouns – when placed either left or right adjacent to the verb – take the verb as its host and form together with it a prosodic word. Thus, while undergoing phonological cliticization they get destressed (lose primary or word stress). Although pronouns are assumed to be given information such a situation is perfectly compatible with presentational sentences in the sense that they can be part of an answer to an all-focus question like “What happened?”. Rappaport discusses only the relationship between the pronouns and the verb. In order to give a more precise description of the pronominal behaviour we will concentrate in this paper on the position of pronouns with respect not only to the verb, but also to adverbials.

Our goal is to find out whether this preference for the verbal category as a prosodic host for destressed Russian personal pronouns can be suspended under certain conditions. So the question is whether phonological cliticization² is determined (1) by focus: that is, when the pronoun is placed before or after an focused constituent; (2) by morphosyntactic categories: that is both in conditions where the pronoun is solely flanked by non-verbal categories which need not compete with the verb for cliticizing the pronoun and in conditions where verbal and other categories are in competition; or (3) by direction.

1.2. Material

To give evidence for one or the other option we conducted the following experiment the relevant conditions of which (1-

9) are shown in table 1. The three columns **1-3** represent the three surface syntactic orders of our target sentences in which personal pronouns were tested. While order 3 (Subj Verb *Pron Adv*) presents the pronouns in their argument position (right to the verb), the orders 1 and 2 display the pronouns in two derived positions (Subj *Pron Adv* Verb & Subj Adv *Pron Verb*) with the adverbial constituent left or right to them. Additionally to orders, the positions of the most prominent (e.g. focused) constituent in the sentences were altered (see conditions 1-9 in table 1). The focussed element is marked by underlining it.

Table 1: Orders 1-3/Conditions 1-9

Accent position	Order		
	1	2	3
Left adj. accent	Con 1 Subj <i>Pron Adv</i> Verb	Con 4 Subj <u>Adv</u> <i>Pron Verb</i>	Con 7 Subj <u>Verb</u> <i>Pron Adv</i>
Right adj. accent	Con 2 Subj <i>Pron</i> <u>Adv</u> Verb	Con 5 Subj Adv <i>Pron</i> <u>Verb</u>	Con 8 Subj Verb <i>Pron</i> <u>Adv</u>
Far accent	Con 3 Subj <i>Pron Adv</i> <u>Verb</u>	Con 6 Subj Adv <i>Pron</i> <u>Verb</u>	Con 9 Subj <u>Verb</u> <i>Pron Adv</i>

Our target sentences were embedded into the following contexts (1-4) establishing a certain focus-background structure with a minimally focused constituent. Furthermore, the sentences in conditions 3, 5, 8 were embedded into contexts that induced broad focus.³ For demonstration we use target sentences of order **1** – Subj *Pron Adv* Verb. The accented word is marked bold face.

- (1) A: *Kogda ja uže xotela skazat' načal'niku vse,*
Min *čto o nem dumaju, kto-to tixon'ko tolknul me-*
Focus *nja v spinu, čtoby ja zamolčala. Kto éto byl?*
on Subj Just when I was about to tell my boss what I think of him, somebody gently touched my back to tell me to be quiet. Who was it?
B: *Podruga* *tebja tixon'ko tolknula,*
(your) girlfriend you gently touched
It was your girlfriend who touched you gently.

- (2) A: *To že mne podruga! Tolknula menja v spinu,*
Min *tak, čto ja zabyla, čto xotela skazat'.*
Focus My friend again! She touched my back in
on such a way that I forgot what I wanted to say.

¹ Russian accusative pronouns can be monosyllabic (like *nas*, *vas*, *ix*) or bisyllabic (like *menja*, *tebja*, *ego*, *ee*). In our experiments we used only bisyllabic accusative pronouns as arguments of transitive verbs. In a future investigation we will test the behaviour of monosyllabic pronouns, either.

² Under phonological cliticization we mean the property of the pronouns to attach to a certain constituent and/or to lean into a certain direction. Phonological clitics can be found in the same positions as full forms of the pronouns and can be separated from the verb.

³ In broad focus contexts the main accent falls on the right-most constituent in the sentence (Ladd 1996, Junghanns & Zybatow 1997).

Adverb B: *Ne ponimaju, počemu ty serdiš'sja. Kak ona tebja tolknula: Podrugā tebjā tixon'ko tolknula.*
I don't understand why you are annoyed. How did she touch your back? Your girlfriend touched your back only gently.

(3) A: *Ja ved' sobiralas' togda skazat' načal'niku vse, čto o nem dumaju. Ne podrugā mne pomešala, tol'ko ne pomnju, čto ona sdelala.*
Min Focus on Verb I was just about to tell my boss what I think of him. But my friend stopped me. Now I don't know anymore what she did.

B: *Podrugā tebjā tixon'ko tolknula.*
Your girlfriend touched you gently.

(4) A: *Ja ved' sobiralas' togda skazat' načal'niku vse, čto o nem dumaju. Ne pomnju, čto mne pomešalo èto sdelat'.*
Broad Focus I was just about to tell my boss what I think of him. Now I don't know what stopped me from doing that.

B: *Podrugā tebjā tixon'ko tolknula.*
Your girlfriend touched you gently.

The target sentences had the following phonetic structure:

(5) *Podrugā tebjā tixon'ko tolknula.*
Girlfriend you-acc gently touched.
“The girlfriend gently touched you.”

(6) **1** – Subj *Pron* Adv Verb:
Podrugā tebjā tixon'ko tolknula.
σ σ σ σ σ σ σ σ σ σ

(7) **2** – Subj Adv *Pron* Verb:
Podrugā tixon'ko tebjā tolknula.
σ σ σ σ σ σ σ σ σ σ

(8) **3** – Subj Verb *Pron* Adv:
Podrugā tolknula tebjā tixon'ko.
σ σ σ σ σ σ σ σ σ σ

All words except the pronoun had three syllables with word stress fixed to the second syllable (σ). All words began with unvoiced stop consonants (*p,t,k*) and ended with an *a* (given that destressed *o* in Russian is spoken like an *a*). This allows us to change word orders, whereby the vowel-consonant chain at word-borders remains the same, namely *a-t*. The reason of using unvoiced stop consonants (*p,t,k*) at word borders is that they can be detected easily in the signal concerning the measuring of pauses.

The only accusative personal pronoun in Russian that begins with a stop consonant and ends with a vowel *a* is *tebjā*. Thus, the experiment was made only with this pronoun.

1.3. Procedure

8 target items in 3 orders were presented in 4 focus-background conditions together with a set of unrelated fillers in 4 pseudo-randomized orders. 4 of our 8 target items contain time adverbials, 4 contain manner adverbials. 5 female Russian native speakers were asked to read aloud the contexts, recorded on DAT-tape, and digitized at 44.1 kHz and a 16 bit sampling rate. After the 480 target sentences were

extracted out of their contexts we localized the position of the main accent by way of introspecting the auditory signals. As for the conditions with minimal foci (with focus on the subject, verb or adverb), speakers consistently accentuated the corresponding constituent. As for broad focus, conditions 3 and 5 were consistently accentuated on the verb. However, condition 8 in the broad focus condition displayed sentence stress on the right peripheral position, hence on the adverb, only on chance level (22 of 40 items vs. 18 items with stress on the verb). The target sentences with the intended accent position were further analyzed concerning pauses.

The pronoun occurs in post- and pre-stressed positions and also in a position with no accent in the near. As a first hypothesis, the relevant evidence for (1) (the cliticization is determined by focus) should be found in the upper six conditions within table 1, and for (2) & (3) (the cliticization is determined by category or direction) within all conditions, probably depending on the tested orders. Prosodically, we should observe at least that the cliticization of the pronoun is suspended in one direction. This process could be indicated by pauses or a step up/down of F0-values immediately before or after the pronoun.

1.4. Results

We departed from the idea that the time span of silence between *Pron* and the constituent it cliticizes to should be shorter than between *Pron* and the constituent it does not cliticize to. To take a decision, we measured inter-lexical pauses between *Pron* and the constituent preceding and following the pronoun. According to our experimental material, each pause is based on the Voice Onset Time (VOT) of stop consonants which should vary within one condition for left and right pauses depending on the direction of cliticization of *Pron*. The following results that are presented in table 2(-4) base on the existence of a difference between both pauses verified by the relatively coarse and robust Wilcoxon test. This physical difference may not be relevant at all, and has to be backed by a perception/categorization test. Under the assumption that the difference is relevant for cliticization, table 2(-4) gives the extract of the experiment. Here, the direction of cliticization is symbolized by \Leftarrow/\Rightarrow . A tendency or uncertainty in the direction of cliticization is indicated by question marks.

Table 2 (- 4): All 9 conditions (1-3)

Accent Position	Con Nr.	Order 1
Left adj. accent	1 ?	Subj \Leftarrow <i>Pron</i> Adv Verb
Right adj. accent	2 ?	Subj <i>Pron</i> \Rightarrow Adv Verb
Far accent	3	Subj \Leftarrow <i>Pron</i> Adv Verb

Table 3: All 9 conditions (4-6)

Accent Position	Con Nr.	Order 2
Left adj. accent	4	Subj Adv \Leftarrow <i>Pron</i> Verb
Right adj. accent	5 ?	Subj Adv \Leftarrow <i>Pron</i> \Rightarrow Verb
Far accent	6	Subj Adv \Leftarrow <i>Pron</i> Verb

Table 4: All 9 conditions (7-9)

Accent Position	Con Nr.	Order 3
Left adj. accent	7	Subj Verb \Leftarrow <i>Pron</i> Adv
Right adj. accent	8	Subj Verb \Leftarrow <i>Pron</i> Adv
Far accent	9 ?	Subj Verb \Leftarrow <i>Pron</i> Adv

1.4.1. Valuation of our hypotheses:

(1) Cliticization is determined by focus: If this would be the case the time of silence between a minimally focused constituent (bold face) and *Pron* should be shorter than between *Pron* and a destressed constituent left or right adjacent to it. According to table 2 conditions 1, 2, 4, and 7 fulfil this requirement, while conditions 5 and 8 don't.

(2) Cliticization is determined by categories: If a category alone would be decisive, *Pron* should cliticize to the verb, adverb or subject independently of the position (before or after *Pron*) or of accentuation. As shown in table 2, this is not the case. The following empirical generalization emerges: When the pronoun occurs after the verb, it always cliticizes to it regardless of the position of the focused constituent in the sentence, see conditions 7, 8, and 9. The same holds true for sentences with broad focus as in condition 8.

(3) Cliticization is determined by direction: Except for the conditions 2 and 5 we observed a tendency for leftward cliticization. The following generalizations come up:

(i) If no accented constituent is adjacent to *Pron*, *Pron* cliticizes to the left, as in conditions 3, 6 and 9.

(ii) Left adjacent accents (see conditions 1, 4, 7) always lead to leftward cliticization of *Pron*.

(iii) As for right adjacent accents (conditions 2, 5, 8), two tendencies seem to compete: a) the pronoun cliticizes to the left, as a rule; b) the pronoun cliticizes to the accented (focused) constituent. In condition 2 *Pron* cliticizes to the right adjacent minimally focused adverb, while in 8 it cliticizes to the left (to the verb) in both minimal and broad focus contexts. Condition 5 is a special case as there is no clear tendency which direction the pronoun cliticizes to. (The silence time between the adverb and *Pron* is as big as between *Pron* and the verb).

To summarize our results in syntactic terms: Russian personal pronouns cliticize to the left, as a rule. This tendency is very strong, when the pronouns occupy their argument positions (after the verb) and remains constant, regardless of the placement of the focus accent in the sentence, see conditions 7, 8, and 9 (order 3).

In conditions 1, 2 and 3 (order 1) Russian pronouns occur in derived positions. The pronouns are moved from their argument positions into Spec,Agr_oP, so that they occur before the adverb, which is merged as an adjunct to vP (Werkmann 2005). The tendency to cliticize to the left is still intact, as given in conditions 1 and 3. However, there is also a tendency requiring that *Pron* cliticizes to the focused constituent, as in condition 2.

In conditions 4, 5 and 6 (order 2) the pronoun occurs again in a derived position (Spec,Agr_oP), whereby the adverb leaves its base-position and adjuncts to Agr_oP (Werkmann 2005). Apart from leftward cliticization, as in conditions 4 and 6, there is also a tendency of the pronoun to cliticize to the focused constituent, see condition 5. This second tendency is stronger in condition 5 than in condition 2. It seems that in

condition 5 the two tendencies stay in competition with each other causing their mutual neutralization.

To sum up, the direction of cliticization does not depend upon the morphosyntactic category of the constituent preceding or following the pronoun. It depends marginally on the position of the minimally focused constituent before or after the pronoun. The process of cliticization is determined mainly by direction to the left. The effect of leftward cliticization is very strong, when the pronouns stay in their first merged positions (immediately after the verb), but it loses strength when the pronouns occur in derived positions (preceding or following an adverb). When pronouns are in derived positions, this effect interacts with the tendency of cliticizing to the focused constituent in the sentence, which can lead to neutralization of both tendencies (see condition 5). Thus, the syntactic positions of the pronouns have an influence on their phonological behaviour.

2. Second Experiment

2.1. Background assumptions

The second experiment shall answer the question whether Russian pronouns in sentence final position manifest different behaviour in different focus conditions given in table 5. Especially interesting will be to see whether personal pronouns could attract main stress in sentences with broad focus. In this case they would behave like lexical nouns (content words) and their phonological properties would not depend upon their pragmatic status (given information) but rather upon the syntactic position that they occupy. If this is not the case, Russian pronouns would behave phonologically like functional words regardless of their structural positions.

2.2. Material

To give evidence for one or the other option we conducted the following experiment the relevant conditions of which are shown in table 5. The pronoun occupies the right peripheral position in the sentence with a potential to attract sentence stress (bold face) in certain focus-background conditions. These were compared to conditions with the main accent on the verb.

Table 5: All 5 conditions

Accent Position	Conditions
Subj Adv Verb <i>Pron</i>	1. minF; 2. contrF; 3. broadF
Subj Adv Verb <i>Pron</i>	4. minF; 5. contrF; ? broadF

9-13 demonstrate how an example target item is embedded into diverse contexts disambiguating the focus-background structure.

- (9) Min Focus on Verb
A: *Čto Katja včera sdělala s tobój?*
What did Katja do with you yesterday?
B: *Katja včera poBlla menja.*
Katja yesterday slapped me
“Yesterday, Katja slapped me.”
- (10) Contr Focus on Verb
A: *Katja pomirilas' s tobój včera?*
Did Katja got along well with you yesterday?
B: *Net. Katja včera poBlla menja.*
“No. Yesterday, Katja slapped me.”

- (11) Broad Focus A: *Čto slučilos’?*
What happened?
B: *Katja včera poBila menja.*
“Yesterday, Katja slapped me.”
- (12) Min Focus on Pron A: *Kogo Katja včera pobila? Tebja?*
Whom did Katja slapped yesterday?
You?
B: *Da. Katja včera pobila menJA.*
“Yes. Yesterday, Katja slapped me.”
- (13) Contr Focus on Pron A: *Ty včera pobila Katju?*
Did you slapped Katju yesterday?
B: *Net. Katja včera pobila menJA.*
“No. Yesterday, Katja slapped ME.”

2.3. Procedure

200 target sentences (8 target items presented in 5 focus-background conditions spoken by 5 female Russian native speakers) were extracted out of their contexts. By way of introspecting the auditory signals we localized the position of the main accent.

2.4. Results

Table 6: Results for all 5 conditions

Condition	Accent position
Contrastive F on <i>Pron</i>	37 of 40 items on Pron
Contrastive F on Verb	39 of 40 items on Verb
Broad F	40 of 40 items on Verb
Minimal F on <i>Pron</i>	11 of 40 items on Verb
	28 of 40 items on Pron
Minimal F on Verb	40 of 40 items on Verb

As shown in table 6, the pronoun can receive contrastive accent. In contexts where the pronoun is minimally focused, two possible accentuation patterns emerge: (i) the pronoun carries main stress; (ii) the verb receives main stress. In the second case we are dealing with VERUM focus caused by the specificity of the context. In sentences with broad focus, the main accent was always realized on the verb. Obviously, the main accent was shifted from the right peripheral pronoun to the left, so that *Pron* never received the main accent in conditions with broad focus. In these cases, the pronoun

cliticizes to the verb forming with it a prosodic word (Werkmann 2004).

Generalizing so far, the results are twofold: (i) According to broad focus, Russian personal pronouns are functional words. (ii) In conditions with contrastive and minimal focus, Russian personal pronouns can receive main stress (with accent shapes differentiating between the focus conditions) and thus, behave like lexical/content words. As the experiment will be redone with a less controversial context for minimal focus, the argument can be made even stronger. Furthermore, Werkmann (2005) has authentic evidence for Russian personal pronouns in contexts with minimal focus. Both observations strengthen the evidence that Russian pronouns are rather lexical than functional words.

3. References

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