

# Subjects and Scales

Dorothee Fehrmann & Uwe Junghanns\*  
*Universität Leipzig*

## Abstract

The paper is concerned with the realization of subjects in Russian (Ru) as compared with Polish (Po) and Czech (Cz). Non-overt realization seems to be a general option in the Slavic languages. However, whereas Cz and Po are uncontroversially *pro*-drop languages, the status of Ru needs a closer look. On the one hand, Ru allows both subjects and non-subjects to be absent at the surface without a difference concerning contexts and conditions. On the other hand, gaps and overt expressions turn out to be just different options that are freely available for the realization of non-emphatic subjects in Ru. We conclude that Ru is not a *pro*-drop language. Gaps can be accounted for as ellipsis. In the last part of the paper we bring scales into the picture. One can try and invoke Silverstein's (1976) person/animate hierarchy and a reduction scale to account for non-overt vs. overt realization of subjects. However, different systems of weak pronouns turn out to be the true factor determining subject realization in Ru, Po, and Cz.

## 1. Initial data

Russian (Ru) sentences often have gaps in positions where one expects to find a subject. At first glance, there doesn't seem to be any difference between Ru and other Slavic languages.

There are *structural null subjects with non-finite verb forms* (like, e.g., infinitives and adverbial participles (gerunds)) as shown in examples (1a, b). This type of subject gap can be analyzed as PRO or an unpronounced copy. These gaps will not play a role in the present paper.

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- (1) a. My xotim \_\_\_ poexat' v Soči. (Ru)  
 we.nom want.1pl go.inf in Sochi.acc  
 'We want to go to Sochi.'  
 (infinitive)
- b. Junoša drožal, \_\_\_ ne (Ru, Mak)  
 young-man.nom trembled.past.sg.m neg  
 ponimaja.  
 understanding.ger  
 'The young man was trembling, not understanding anything.'  
 (adverbial participle (gerund))

*Subject gaps occur in finite clauses* too. Examples are given in (2)–(10). One explanation that comes to mind when dealing with missing subjects in finite clauses is *pro* drop. But do all subject gaps in the examples given in (2)–(10) qualify for an analysis as *pro* drop?

- (2) a. \_\_\_ Bylo očen' xolodno. (Ru)  
 was.past.sg.n very cold.sg.n  
 'It was very cold.'
- b. \_\_\_ Temneet. (Ru)  
 get-dark.3sg  
 'It is getting dark.'
- c. Ob ètom uže \_\_\_ govoriłos'. (Ru)  
 about this already spoke.past.sg.n.refl  
 'There has already been talked about it.'  
 (impersonal predicates)

The sentences in (2) contain predicates of a special kind – impersonal predicates. These have a specific argument structure lacking an external argument. There is no subject theta-role projected into syntax, so possible analyses will either assume a null expletive in subject position<sup>1</sup> or the position is not projected at all.

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<sup>1</sup>Standard Ru lacks overt expletives.

However, the fact that a language has null expletives says nothing about its ability to allow null referential subjects.<sup>2</sup> We will not discuss null expletives any further.

The sentences in (3a, b) receive a special interpretation that is associated with the form of the predicate. In (3a) there is third person plural agreement on the predicate. In this case the referent of the null subject is interpreted as indeterminate-human.<sup>3</sup> In (3b) the verbal predicate realizes second person singular agreement. Here the null subject has a non-expressed generalized-human referent.<sup>4</sup> We posit a special silent lexical element *pro*<sub>arb</sub> (“arbitrary pronoun”) with the required feature specification that is merged in those sentences. However, a language may have special *pro*<sub>arb</sub> items in its lexicon without allowing *pro* drop in general.

- (3) a. Po radio \_\_\_ peredajut poslednie (Ru, AG80, I, 617)  
 over radio \_\_\_ transmit.3pl last.acc  
 novosti.  
 news.acc  
 ‘They are broadcasting the latest news.’  
 (3pl predicate – “indeterminate personal sentence”)

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<sup>2</sup> These are two related but autonomous parameters (as stated by Rizzi 1986). The ability to have null expletives, i.e. to license null subjects (in Rizzi’s terms), is only the prerequisite for the identification of the content of the null element which makes null referential subjects possible. Franks (1995) even denies an implicational relation between the two parameters: a language that has null referential subjects does not obligatorily lack overt expletives.

<sup>3</sup> Note the term “neopredelennno-ličnoe predloženie” (indeterminate personal sentence) that is used in traditional grammar.

<sup>4</sup> Traditional grammar has the term “obobščennno-ličnye predloženiya” (generalized personal sentences) for the relevant sentences.

- b. Nikakoj siloj menja tuda \_\_\_ ne (Ru)  
 any.instr force.instr me.gen there neg  
 zataščiš'.  
 will-drag.2sg  
 'Wild horses couldn't drag me there.'  
 (2sg predicate – "generalized personal sentence")

In the coordinate structure given in example (4) the subjects of the non-initial conjuncts seem to be missing. However, the structure could be analyzed as VP-coordination, leaving no gap at all. In this case the initial *my* 'we' is the subject shared by all conjuncts.

- (4) My ezdili v Komi, \_\_\_ rubili (Ru, Put)  
 we.nom went.past.pl in Komi cut.past.pl  
 proseku dlja LĚP i  
 clearing.acc for power supply line and  
 \_\_\_ stroili doma.  
 built.past.pl houses.acc  
 'We went to the Autonomous Republic of Komi, cut a clearing for a power supply line and built houses.'  
 (VP coordination)

In example (5), on the other hand, a *wh*-expression occupies the initial position in each of the conjuncts. Therefore, we are forced to assume CP-conjuncts. There is a true gap in the position of the subject of the second conjunct. This gap needs to be explained.

- (5) Kogda vy zarabotali pervye den'gi (Ru, Put)  
 when you.nom earned.past.pl first.acc.pl money.acc.pl  
 i na čto \_\_\_ ix potratili?  
 and for what them.acc.pl spent.past.pl  
 'When did you earn your first money and on what did you spend it?'  
 (CP coordination, coreferential subjects)

Comparable subject gaps can be found in subordinate clauses, e.g., in complement clauses as in (6) and (7) or in adverbial clauses as in the example that is given in (8).

- (6) Ivan skazal, što — pridet. (Ru)  
 Ivan.nom said.past.sg.m that will-come.3sg  
 ‘Ivan said that he would come.’  
 (complement clause, coreferential subjects)
- (7) Peredaju, što — skazal. (Ru, Ryb)  
 report.1sg what.acc said.past.sg.m  
 ‘I’m only telling what he said.’  
 (complement clause, null subject and main clause subject not co-  
 referential)
- (8) Na tretij den’ Savelija uveli. (Ru, Ryb)  
 ‘On the third day Savelij was led away.’
- Uxodil on tak že ravnodušno,  
 went-away.past.sg.m he.nom so prtcl indifferently  
 kak — prišel.  
 as came.past.sg.m  
 ‘He went not showing any sign of involvement, as he had come.’  
 (adverbial clause)

In (6) the null subject of the complement clause and the main clause subject *Ivan* are coreferential. But this is not a necessary condition for subject omission, as can be seen in (7). In this example, the main clause subject, which happens to be non-overt too, refers to the speaker, whereas the null subject of the subordinate clause refers to some specific third person involved.

Finally, the examples in (9) and (10) show that subject gaps can also occur in main clauses in Ru. Observe that in (10) not only the subject is missing. In this example, all three arguments of the predicate *peredat* ‘tell’ are absent at the surface.

- (9) Staršina vystavil život vpered. (Ru, Mak)  
 ‘The sergeant-major pushes out his stomach.’  
 — Spráiváet Rubaxina: – “ Nu? ... Budet  
 asks.3sg Rubaxin.acc prtcl will-be.3sg  
 podmoga?”  
 help.nom  
 ‘Asks Rubaxin: ‘Well ... Will there be any help?’  
 (main clause)
- (10) A: Tebe Leva peredal moju (Ru, Ryb)  
 you.dat Leva.nom tell.past.sg.m my.acc  
 pros’bu?  
 request.acc  
 ‘Did Leva tell you about my request?’  
 B: — peredal — —.  
 tell.past.sg.m  
 Yes, he did.  
 (main clause)

Non-finite clauses:		(i)	PRO (or unpronounced copy)	(1a,b)
Finite clauses:	impersonal predicate	(ii)	<i>pro</i> <sub>expl</sub> (or position not projected at all)	(2a,b,c)
	3pl, 2sg	(iii)	<i>pro</i> <sub>arb</sub>	(3a,b)
	VP-coordination	(iv)	no gap	(4)
	CP-coordination	(v)	<i>pro</i> drop?	(5)
	embedded clause	(vi)	<i>pro</i> drop?	(6), (7), (8)
	main clause	(vii)	<i>pro</i> drop?	(9), (10)

Table 1: Typology of subject gaps

As can be seen in table 1, example types (i)–(iv) have been eliminated as possible candidates for a *pro*-drop analysis. The interesting cases are types (v)–(vii).

## 2. Ru is (not) *pro* drop

The question is whether *pro* drop is an appropriate analysis for the Ru data in the first place. Whereas West and South Slavic languages are uncontroversially considered consistent *pro*-drop languages (see table 2), opinions vary with respect to the characterization of Ru.

Some authors claim that Ru is *pro* drop, treating all Slavic languages on a par in this respect (cf., e.g., Růžička 1986, Koktová 1992, Kosta 1990, Müller 2005).

Other linguists do not classify Ru as a canonical null-subject language. They claim that the relevant missing subjects can be explained as instances of the more general phenomenon of contextual ellipsis (cf., e.g., Jakobson 1939, Nichols 1985, Berger 1993, Weiss 1993, Lindseth & Franks 1994, Franks 1995, Lindseth 1998, Avrutin & Rohrbacher 1997).

Incidentally, Franks (1995) characterizes Ru as a “mixed” null-subject language – it has null expletives, but requires theta-marked subjects to be lexically filled in stylistically neutral contexts.

Languages		null expletive subjects	null referential subjects
South Slavic	Bu	+	+
	SC	+	+
West Slavic	Cz	+	+
	Po	+	+
East Slavic	Ru	+	?

Table 2: Characterization of Slavic languages

### 3. The *pro*-drop chameleon

#### 3.1. Different notions and accounts

The indeterminacy with respect to whether a particular language is *pro* drop or not is, to a certain degree, due to the heterogeneity of the phenomena subsumed under the notion of “*pro* drop” as well as the diverse accounts suggested.

(i) The classical notion of *pro* drop (based on observations by Perlmutter 1971 and developed in the *Government and Binding* framework by Rizzi 1982, 1986) relates to the omission of non-emphatic subject pronouns under rich subject-verb agreement, which allows for the local recovery of the content of the dropped argument (known as Taraldsen’s (1978) Generalization). This notion of *pro* drop is also known as the null-subject parameter. Null-subject languages are, e.g., Italian, Spanish, and Greek.

(ii) Radical or discourse *pro* drop describes the omission of *any* argument under certain discourse conditions in non-agreement languages (Chineses, Japanese), but also in rich agreement languages (Urdu, Hindi). Such phenomena are described in, e.g., Huang (1984), Butt & King (2000), Tomioka (2003), Neeleman & Szendrői (2005).

(iii) Finally there is the notion of topic drop (suggested by Huang 1984) referring to the omission of a topical argument moved to clause-initial position. Topic drop also occurs in languages that do not normally drop referential subjects. Compare, e.g. the so-called diary style of German or English.

It is obvious that (i)–(iii) do not relate to a uniform phenomenon.

Even if one looks at classical *pro* drop only, one observes that the languages subsumed under this label behave differently. We can distinguish between:

- Languages that have only expletive null subjects (no real *pro* drop languages),  
e.g., German;
- Languages that have also quasi-argumental null subjects (no real *pro* drop languages),  
e.g., Icelandic; and
- Languages that have also referential null subjects:

- consistent null-subject languages (null subjects with all persons and numbers), e.g., Italian<sup>5</sup>, Spanish, Greek;
- partial null-subject languages (null subjects only with some persons and numbers or tenses), e.g., Finnish, Modern Hebrew.

Apart from the classical account as empty pronoun *pro* (Rizzi 1986), different analyses have been proposed for phenomena subsumed under the different notions of *pro* drop. Huang (1984) suggested an operator-variable relation for topic drop. Tomioka (2003) invokes NP-deletion for discourse *pro* drop. Holmberg (2005) employs different categories. So there does not seem to be a universal category *pro* accounting for subjects that are absent at the surface.

Proposals put forward to account for missing subjects in null-subject languages include:

- post-syntactic (PF-) deletion (cf. Perlmutter 1971, Holmberg 2005 for some partial *pro* drop);
- an empty category *pro* ( $\phi$ -feature-less – cf. Chomsky 1982, Rizzi 1986, Müller 2005 – or specified for  $\phi$ -features – Holmberg 2005) merged in argument position;
- subject position not projected at all – pronoun incorporated into agreement (cf. Jelinek 1984, Borer 1986, Barbosa 1995, Kato 2000, Alexiadou & Anagnostopoulou 1998 for expletives)

We understand *pro* drop in the classical sense. According to this view, *pro* drop is the omission of non-emphatic subject pronouns under rich subject-verb agreement (see above).

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<sup>5</sup> Interestingly, *pro* drop is not (always) obligatory – even for a language like, e.g., Italian Oliveira (2000) states that nothing prevents the subject from being lexically realized in contexts where a null subject can also be used. In general, null-subject languages vary with respect to the frequency of subject drop. According to Grimshaw & Samek-Lodovici (1998) even in so-called *pro*-drop languages, the actual dropping of the pronoun depends on discourse conditions.

### 3.2. “Rich” morphology

What exactly does morphological “richness” mean? How does “rich” morphology come into play? Again, there are various views.

According to Rizzi (1982) agreement is [+pron]. It has to be rich enough to identify the  $\phi$ -features of  $\phi$ -featureless *pro*. Infl morphology distinguishing between all persons is able to achieve this.

Jaeggli & Safir (1989) propose the “morphological uniformity” criterion allowing to extend the concept of *pro* drop to non-agreement languages (e.g., Chinese and Japanese).

Roberts (1993) invokes the two notions of “formal richness” (phonologically uniform paradigm) and “functional richness” (restriction on the number of syncretisms tolerable for successful identification).

Müller (2005) suggests a new definition of morphological richness that relates to his concept of “Impoverishment”. It is based on the decomposition of morphological features in the framework of *Distributed Morphology*.<sup>6</sup>

Alexiadou & Anagnostopoulou (1998) develop ideas by Jelinek (1984) and Barbosa (1995) arguing that in null-subject languages, agreement is (pro)nominal. It is equipped with a nominal [+D]-feature. Ultimately, such an approach may result in the elimination of *pro* altogether, cf. Manzini & Savoia (2002), Platzack (2003, 2004). Holmberg (2005), Roberts (2007), and Kato (2000), on the other hand, take the [+D]-feature of agreement to enable D-less *pro* to refer (via the  $\phi$ -features).

### 3.3. Russian morphology

There are different views on whether Ru is morphologically rich enough (to have referential *pro* drop). Lindseth (1998) and Müller (2005) come to different conclusions that are based on different interpretations of the past tense inflectional system of Ru.

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<sup>6</sup> Impoverished T cannot license *pro*. “Pro Generalization: An argumental *pro* DP cannot undergo Agree with a functional head  $\alpha$  if  $\alpha$  has been subject to  $\phi$ -feature neutralizing impoverishment in the numeration.” (Müller 2005, 10)

Lindseth (1989) distinguishes between person and gender agreement. In the Ru past tense inflectional system there is no person agreement due to the loss of the auxiliary. Hence, there is no  $\text{AGR}_{\text{persP}}$  in the past tense (though there is an  $\text{AGR}_{\text{gendP}}$ ). Lindseth concludes that Ru cannot have referential null subjects, since they are not identified. Expletive null subjects are possible.

Müller (2005) observes that past tense in Ru is marked only for gender and number. At first sight this looks like radical person impoverishment. But Ru past tense forms derive from *l*-participles that were accompanied by auxiliaries in older stages of the language. The *l*-participles never had any person features in the first place. Those features were located on the auxiliaries. So the person features are not deleted. Rather past tense inflection markers are not specified for person features. According to Müller, Ru is still *pro* drop.

#### 3.4. Diagnostics for *pro* drop

Lindseth & Franks (1996) propose three diagnostics for real *pro* drop (cf. Lindseth 1998, 34):

- (i) Only null pronominals are stylistically unmarked.
- (ii) Only null pronouns can function as bound variables.
- (iii) Only null 3rd plural pronominal subjects can have arbitrary reference.

Ad (i): Lindseth & Franks (1996) observe that overt subject pronouns do not have a marked status in Ru and can be freely interchanged with the null form – as shown in our Ru examples in (11) contrasted with the Cz example in (12). The overt subject pronoun *já* ‘I’ in (12b) can only get a stressed – emphatic or contrastive – reading.

- (11) a. A: Bud'te dobry peredat' mos'e (Ru, MiM)  
 be.imp.2pl good tell.inf mister.dat  
 Volandu, čto vystuplenie ego  
 Voland.dat that appearance.nom his  
 segodnja v tret'em otdelenii. [...]  
 today in third part  
 'Kindly tell Monsieur Woland that his performance is  
 tonight in the third part  
 of the programme.'  
 B: \_\_\_ Peredam.  
 will-tell.1sg  
 'I'll tell him.'
- b. A: Tut dvadcat' rublej. Peredajte, (Ru, Ryb)  
 here twenty rubles give.imp.2pl  
 skažite, čto ja ešče živa.  
 say.imp.2pl that I.nom still alive  
 'Here are twenty rubles. Give them to him. Tell him that I  
 am still alive.'  
 B: Xorošo, **ja** peredam.  
 good I.nom will-give.1sg  
 'Very well, I'll do it.'  
 (both versions unmarked)
- (12) a. \_\_\_ Udělám to. (Cz, Short (1993, 470))  
 will-do.1sg it.acc  
 'I'll do it.'  
 (unmarked subject)
- b. **Já** to udělám.  
 I.nom it.acc will-do.1sg  
 'I'll do it.'  
 (stressed subject)

Ad (ii): Lindseth (1998, 48-49) shows that overt pronominal subjects in Ru complement clauses can be coreferential with the subject of the matrix clause (bound variable reading). This is hardly possible in Cz. Note the contrast between the examples in (13) and (14) from Lindseth (1998).



**4. Other missing elements (non-subject gaps)**

In Ru we do not only find subject gaps. Other elements (e.g., objects) can be non-overt as well. The structural conditions appear to be the same for subject and non-subject gaps. This was already pointed out by Lindseth (1998).

*Absent object*

- (17) Kljanus', ničego takogo net v mašinax – ni oružija, (Ru, Mak)  
ni produktov. Pustye my!..  
'I swear, there's nothing of the sort in the trucks – neither weapons,  
nor produce. We're empty!..'
- Pust' pridet vaš čelovek i proverit \_\_\_ – vse  
ptcl come.3sg your man.nom and check.3sg  
pokažem, streljat' ego ne budem.  
'You can send someone to check – we'll show everything, we won't  
shoot him.'  
(direct object gap)
- (18) – Taz vynesu, togda ljagu, – otvetil Saša. (Ru, Ryb)  
'I'll carry away the bowl, then I'll lie down,' Sasha said.'  
– Ja vynesu \_\_\_, – otec Vasilij podnjaj taz. – Vy ne  
I.nom carry-away.1sg  
znaete kuda.  
'I'll carry it away.' Father Vasilij took the bowl. 'You don't  
know where to put it.'  
(direct object gap)
- (19) Ty vzjal u menja iz dorožnoj apteki banočku (Ru, DV)  
s morfiem. [...] Morfij že otdaj, a to [...] podumajut,  
čto èto ja tebe dal \_\_\_  
that ptcl I.nom you.dat gave.past.sg.m  
'You took from my first aid travel kit a phial with morphine. [...]  
Give it back, otherwise [...] they will think that it was me who gave  
you the morphine.'  
(ditransitive verb, direct object gap)

- (20) A pis'mo \_\_\_ peredam \_\_\_\_\_. (Ru, Ajtm)  
 and letter.acc deliver.1sg  
 'And I'll deliver the letter.'  
 (ditransitive verb, indirect object gap)
- (21) Bud'te dobry peredat' mos'e Volandu, (Ru, MiM)  
 čto vystuplenie ego segodnja v tret'em otdelenii.  
 'Kindly tell Monsieur Woland that his performance is tonight in the  
 third part of the programme.'  
 Slušaju. Kak že. Nepremenno. Sročno. Vseobjazatel'no.  
 \_\_\_ peredam \_\_\_\_\_, – otryvisto stukala trubka.  
 tell.1sg  
 'Right. Of course. Absolutely. Urgently. Without fail. I'll tell him,'  
 the receiver rapped out abruptly.'  
 (ditransitive verb, indirect object gap and direct object gap)

In (21) both objects as well as the subject are missing at the surface. A similar example is (10) in section 1.

*Absent prepositional object*

- (22) Rubaxin sprosil vody \_\_\_\_, [...] (Ru, Mak)  
 R.nom asked.past.sg.m water.gen  
 'Rubakhin asked for some water, [...]'  
 (PP gap – *sprosit' čego u kogo-n.* 'to ask sb. sth.' (literally: 'to ask sth. at sb.'))

*Absent argument adverbial*

- (23) [...], potom ego uveli \_\_\_\_, (Ru, Ryb)  
 then him.acc led-away.past.pl  
 a krovat' ostavili \_\_\_\_.  
 but bed.acc left.past.pl  
 'Then they led him away, but the bed was left in the room.'  
 (directional adverbial gap (with *uveli*), local adverbial gap (with *ostavili*))

We would like to emphasize two interesting points with regard to object gaps. The first point concerns “arbitrary *pro*” vs. referential object gaps. The second point is about object gaps with overt subjects.

*“Arbitrary pro” vs. referential object gaps*

Object gaps have been shown to receive an *arbitrary interpretation* (cf. Rizzi 1986 and Růžička 1986; see also Holmberg 2005 who discusses Rizzi 1986). We can refer to such gaps as “arbitrary *pro*” object gaps.

The case is attested in Ru as well. An example from our data base is:

- (24) Krasota mesta porazila \_\_\_\_, [...] (Ru, Mak)  
 beauty.nom.sg.f place.gen struck.past.sg.f  
 ‘The beauty of the place was striking.’  
 (direct object gap (“arbitrary *pro*”))  
 NB: The verb is transitive (*porazit’ kogo* ‘to strike sb.’).

However, quite often we deal with *referential* object gaps in Ru. This type of gap was illustrated in (17)-(21).

*Object gaps with overt subjects*

In Ru, objects can be non-overt even if there is an overt subject. This contradicts claims in the literature (see Prasad 2000 for Hindi) that object gaps depend on subject gaps to exist. In Ru, object gaps are independent of subject gaps (and vice versa). Hence, there is no asymmetry between object and subject gaps. See also subsection 5.2.

- (25) – Esli ty rad našej pobede, počemu ty ne (Ru, Sneg)  
 pomog nam pobedit’?  
 ‘If you are glad that we’ve won, why didn’t you help us win?’  
 Golos otvetil s mjagkoj ukoriznoj:  
 ‘The voice answered slightly reproachfully:’  
 – **Ja** pomogal \_\_\_\_, [...]  
 I.nom helped.past.sg.m  
 ‘I did help (you win).’  
 (overt subject pronoun, indirect object gap)

- (26) **Mama** peredala togda \_\_\_\_ (Ru, Ryb)  
 mother.nom sent.past.sg.f then  
 vtoruju predaču.  
 second.acc parcel.acc  
 ‘Sasha’s mother then sent the second parcel.’  
 (ditransitive verb, overt subject, indirect object gap)
- (27) A: Tut dvadcat’ rublej. Peredajte, skazite, (Ru, Ryb)  
 here twenty rubles give.imp.2pl say.imp.2pl  
 što ja ešče živa.  
 that I.nom still alive  
 ‘Here are twenty rubles. Give them to him. Tell him that I am still alive.’
- B: Xorošo, **ja** peredam \_\_\_\_ \_\_\_\_.  
 good I.nom will-give.1sg  
 ‘Very well, I’ll do it.’  
 (ditransitive verb, overt subject pronoun, indirect and direct object gap)

From the fact that Ru has subject and non-subject gaps we draw the following conclusion: Unless one can show that subject “*pro* drop” is, in principle, different, one obviously must state that subject gaps and other gaps occur under similar conditions and may be seen as related in kind.

So we could claim that subject gaps in Ru are not due to “*pro* drop”. Subject and non-subject gaps that we observe in Ru could be analyzed in a parallel fashion, e.g., as instances of ellipsis governed by discourse conditions. This is also the conclusion drawn by Lindseth (1998) and Franks (1995).<sup>7</sup>

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<sup>7</sup> Compare the following two citations from Franks (1995): “Such discourse ellipsis applies with equal force to virtually any element, regardless of syntactic position, suggesting that it is a PF-deletion process.” And: “Phrases deleted under ellipsis are contextually recoverable and need be neither subjects nor pronouns (although of course they may be and often are).” (Franks (1995, 292))

**5. Non-emphatic overt subjects**

## 5.1. Overt realization – four cases

Non-emphatic<sup>8</sup> subjects can be realized overtly as pronouns (Pron) or full nominal expressions (NP). We would like to illustrate the following four classes of examples: (i) Pron V, (ii) V Pron, (iii) NP V, and (iv) V NP.

*(i) Pron V*

An overt subject pronoun preceding the verb is a very common case in Ru.

- (28) – [...] Ty ponjal menja ili udarit' tebja? (Ru, MiM)  
 'Do you understand me, or do I hit you?'

Arestovannyj pošatnulsja, no sovladal s soboju, kraska vernulas', on perevel dyxanie i otvetil xriplo:

– **Ja** ponjal tebja. Ne bej menja.

'The arrested man swayed, but got hold of himself, his colour returned, he caught his breath and answered hoarsely: **I** understand. Don't beat me.'

(1p pronoun)

- (29) Sliškom mnogo **ty** žalovalsja kesarju na menja, (Ru, MiM)  
 i nastal teper' moj čas, Kaifa!

'**You** have complained about me too much to Caesar, and now my hour has come, Kaifa!'

(2p pronoun)

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<sup>8</sup>“Non-emphatic” is to be understood as either “non-focal” (here, Information Structure is concerned) or “not emphasized” (for whatever other reasons there might be).

- (30) Vovka-strelok vskidyvaet svoj karabin (Ru, Mak)  
 i s osoboj medlitel'nost'ju vedet im sleva napravo, ispol'zuja  
 optičeskij pricel kak binokl'. **On** zatail dyxanie.  
 'Vovka-the-marksman raises his carbine to his shoulder and he  
 moves it with special slowness from left to right using the optical  
 aim as binoculars. **He** holds his breath.'  
 (3p pronoun)

Again, we should like to point out that the situation is quite different from the one that we find in Cz. In Cz, a non-emphatic pronominal subject is dropped obligatorily (see above, example (12a)). An overt pronominal subject, on the other hand, needs licensing via some kind of stress in that language (see above, example (12b)).

Po occasionally allows a non-emphatic overt 3p pronoun in the preverbal subject position. Compare the following example which, according to Górna (1976), is possible with verum focus on the verb.

- (31) Parę dni później **on** był świadkiem (Po, Górna (1976, 212))  
 rozmowy.  
 'Some days later **he** witnessed a conversation.'  
 (3p pronoun)

See section 6 for an account.

(ii) *V Pron*

A backgrounded pronominal subject can follow the verb at the surface. Compare the following Ru examples.

- (32) [...] privezli s železnoj dorogi streločnika; (Ru, DV)  
 položil **ja** ego na stol, čtoby emu operaciju delat', [...]  
 'They brought the switchman from the railway line. **I** laid him on the  
 table to operate on him.'  
 (1p pronoun)

- (33) Prišel **ty** iz vtorigo ešelona činovnikov (Ru, Google)  
na glavnyj post strany.  
'**You** came from the second rank of civil servants to the highest  
position of the country.'  
(2p pronoun)
- (34) Katerina L'vovna vdruk poblednela, [...] (Ru, Lesk)  
Postojala **ona** sredi komnaty [...]  
'Katerina L'vovna suddenly grew pale. [...] **She** stood for a while in  
the room [...]'  
(3p pronoun)

Interestingly, the *pro*-drop languages Po and Cz behave differently in this respect. Whereas Cz doesn't realize V Pron structures,<sup>9</sup> Po does. Consider the following example.

- (35) Parę dni później był **on** świadkiem (Po, Górna (1976, 212))  
rozmowy.  
'Some days later **he** witnessed a conversation.'  
(3p pronoun)

Observe that in Po, which is usually classified as a *pro*-drop language, V Pron is possible only with 3p pronouns. We will come back to this issue in section 6.

With V Pron the interesting point is that a non-emphatic pronominal subject can be overt – even if it is an item which is not very heavy in terms of communicative weight and could be contextually recovered without difficulty. The pronominal subjects under discussion are clearly background items in their sentences. Still they show up at the surface.

V Pron is not a true inversion structure. Note that verb placement and placement of the pronominal subject are independent syntactic processes. For an analysis see Fehrmann & Junghanns (2008).

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<sup>9</sup> Non-emphatic overt pronominal subjects are excluded in Cz. See above, examples (12a, b).

## (iii) NP V

Just like an overt subject pronoun preceding the verb (Pron V), a subject realized as an overt full nominal expression in preverbal position is a very common case in Ru.

- (36) V belom plašče s krovavym podboem, (Ru, MiM)  
 šarkajuščeĭ kavalerijskoj poxodkoj rannim utrom četyrnadcatogo  
 čisla vesennego mesjaca nisana v krytuju kolonnadu meždu dvumja  
 kryl'jami dvorca Iroda Velikogo vyšel prokurator Iudei Pontij Pilat.  
 Bolee vsego na svete **prokurator** nenavidel zapax rozovogo masla,  
 [...]  
 'In a white cloak with blood-red lining, with the shuffling gait of a  
 cavalryman, early in the morning of the fourteenth day of the spring  
 month of Nisan, there came out to the covered colonnade between  
 the two wings of the palace of Herod the Great the procurator of  
 Judea, Pontius Pilate.  
 More than anything in the world **the procurator** hated the smell of  
 rose oil, [...]'

## (iv) V NP

Backgrounded full subjects that follow the verb are attested as well.

- (37) I vot dolgoždannoe pojavlenie Anny Netrebko (Ru, Part)  
 na gamburgskix podmostkax. [...] Načala **Netrebko** s [...] fragmentov iz oper Mocarta [...]  
 'And eventually there came Anna Netrebko's long-awaited  
 appearance on the stage in Hamburg. **Netrebko** began with pieces  
 from Mozart's operas [...].'

Here – just like in the V Pron case (see above) – we deal with ordinary placement of the subject in a canonical background position.

NP V and V NP are attested both in Po and Cz. These cases are not interesting for the two *pro*-drop languages, since full nominal subjects are involved.

## 5.2. Cooccurrence of non-emphatic subject pronouns and object gaps

It is interesting that in Ru, we can have a non-emphatic subject pronoun and, at the same time, an object gap. From this we can conclude that non-emphatic subject pronouns occur in contexts that, in principle, license gaps.

- (38) – *Esli ty rad našej pobede, počemu ty ne* (Ru, Sneg)  
*pomog nam pobedit'?*  
 'If you are glad that we've won, why didn't you help us win?'  
*Golos otvetil s mjagkoj ukoriznoj:*  
 'The voice answered slightly reproachfully:'  
 – **Ja** pomogal \_\_\_\_\_, [...]  
 I.nom helped.past.sg.m  
 'I did help (you win).'  
 (overt subject pronoun, indirect object gap)

## 5.3. Observations

As a rule, a non-emphatic overt subject pronoun can be left out without the sentence becoming ungrammatical. Compare:

- (39) *Odna devočka ušla iz doma v les.* (Ru, Tri)  
*V lesu (ona) zabludilas' i [...]*  
 '(Once upon a time) there left a girl her home and went into the forest. In the forest **she** got lost and [...]'  
 (3p pronoun)
- (40) *Sliškom mnogo (ty) žalovalsja kesarju na menja,* (Ru, MiM)  
*[...], Kaifa!*  
 '**You** have complained about me too much to Caesar, [...], Kaifa!'  
 (2p pronoun)

See also examples (11a, b) above.

We even find sequences of sentences of a text where some sentences have a non-emphatic overt pronominal subject whereas other sentences have subject gaps. Compare:

- (41) Nakonec **on** rešilsja. Ozaglaviv svoe pis'mo (Ru, Ajtm)  
 “Ašiktyk kat”, \_\_\_ napisal, čto [...]  
 ‘Eventually, **he** made up his mind. Having entitled his document  
 “Ašiktyk kat” [love letter], **he** wrote that [...]  
 (non-emphatic overt pronominal subject and subject gap)

#### 5.4. Conclusion

Subject gaps are not obligatory in Ru. Rather they are one option alongside non-emphatic overt subjects.

Sticking to the claim that Ru is a *pro*-drop language would lead to a problem. The *pro*-drop parameter should have the status of a law, i.e., it should imply logical necessity. A subject gap should occur whenever the conditions are met. We have seen that in Ru, we find gaps and overt expressions in identical or quite similar contexts. From this we can conclude that subject gaps and overt expressions are different options for realizing non-emphatic subjects. This casts strong doubts on the existence of a null-subject parameter in Ru.

Apart from this we have already shown in section 3 that there are more arguments against Ru as a *pro*-drop language.

### 6. Scales and subjects

This section considers the possibility to involve scales in an account of subject realization in the Slavic languages. We should like to point out that one can try and apply scales for explaining subject realization including gaps irrespective of whether these gaps are actually analyzed as *pro* drop or ellipsis.

It is important to distinguish between two views: (i) scales as a possible “built-in” device of the language system, and (ii) scales as a device guiding language use only. Our interest lies in the first view.

#### 6.1. Inventory of scales and implications

A number of scales have been suggested that appear to play a role for subject realization. These are primarily different kinds of discourse

prominence scales like, e.g., Givón's (1983, 1984) concept of "referential distance", also called "degree of topic continuity" applied to Po by Siewierska (1988) or the implicational hierarchy of "cognitive states" proposed in Gundel et al. (1993) that predicts the distribution of referring expressions.

Artstein (1999) suggests to apply another type of hierarchy – the person/animacy hierarchy (first proposed in Silverstein 1976) – to capture effects of person specification on the licensing of null subjects. In this way, Artstein tries to account for the system of null subjects in Hebrew, which allows null subjects in first and second persons, but not in the third person. The hierarchy is given in (42).

(42) *Person/animacy hierarchy* (adapted from Silverstein 1976)

1/2 person (pron.) > 3 person (pron.) > animate (3 person) > inanimate (3 person)

Elements that are located higher on the person/animacy scale tend to be realized non-overtly, while elements that are lower on the scale tend to be realized overtly.

Hence, a second scale comes into play. This takes the form of a reduction scale in the spirit of, e.g., Bresnan (2001).

(43) *Reduction scale* (Bresnan 2001)

Null > Overt

Incidentally, there seems to be an interesting parallel between this scale and the "Avoid Pronoun" Principle proposed by Chomsky (1981), or the more general "Minimise Structure" or "Economy of Representation" principle introduced by Cardinaletti & Starke (1999) by which "the most deficient form must be chosen if it can be chosen".

Alignment of the person/animacy scale with the reduction scale allows Artstein to derive the following implications:

- (44) In languages with a *pro*-drop system conditioned by person:
- (i) A first or second person null subject is less marked than a third person null subject.
  - (ii) A first or second person overt NP is more marked than a third person overt NP.
- And:
- (iii) If a language allows null arguments in the third person, it will also allow them in first and second persons.
  - (iv) If a language requires first and second person arguments to be overt, it will also require third person arguments to be overt.  
(cf. Artstein (1999, 3))

## 6.2. Weak pronoun systems and the person/animacy hierarchy

We can try and extend this approach to the system of weak pronouns.

According to Cardinaletti & Starke (1999) pronouns fall into three classes – strong, weak, and clitic pronouns. Little *pro* counts as a weak pronoun. Hence, in their system weak pronouns can be overt or null.

It is important to note that languages vary with regard to the inventory of lexical weak pronominal forms that they have.

The person/animacy hierarchy and the relevance scale apply to weak pronominals – and to NPs – in general:

- (45)
- (i) A first or second person null weak pronominal is less marked than a third person null weak pronominal.
  - (ii) A first or second person overt weak pronominal is more marked than a third person overt weak pronominal.

If there are differences between the systems of weak pronouns in the languages investigated, we expect them to conform to these generalizations.

What do the pronominal systems of the languages investigated look like?

weak subject pronouns <sup>10</sup>		Cz		Po		Ru	
form	position	1/2p	3p	1/2p	3p	1/2p	3p
overt	preverbal	-	-	-	(+)	+	+
	postverbal	-	-	-	+	+	+
null		+	+	+	+	-	-

Table 3: System of weak subject pronouns in Slavic languages

Table 3 shows that null weak subject pronouns are possible in Cz and in Po for all persons. Cz and Po are canonical *pro*-drop languages. Ru is not a *pro*-drop language (see above). Hence, it has no null subject pronouns.

As far as overt weak subject pronouns are concerned we have shown that Ru can realize a non-emphatic subject as an overt pronoun in all persons – either in preverbal or in postverbal position. See section 5 for examples.

In Cz, an overt subject pronoun always gives rise to a marked interpretation. An example containing a first person pronoun was given in (12b) in section 3. We do not give an example for the second person, because it is ranked together with the first person. The following example illustrates the case for the third person.

- (46) A: Co je s Petrem<sub>k</sub>? (Cz)  
 what is.3sg with Peter.instr  
 ‘What about Peter?’
- B: Jan<sub>i</sub> řekl, že \*on<sub>k</sub> / *pro*<sub>k</sub> přijde.  
 Jan.nom said.past.3sg.m that he / *pro* will-come.3sg  
 ‘Jan said that he would come.’

Po allows overt realization of non-emphatic subject pronouns – both in preverbal and postverbal position. See section 5 for examples. However,

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<sup>10</sup>We exclusively discuss the standard languages.

this seems to be true only for the third person. In the postverbal position which is available for weak, non-emphatic, expressions only, first and second person pronouns never appear. Compare the following examples.

- (47) a. Parę dni później był (Po, Górna (1976, 212))  
 some days later was.past.3sg.m  
**on** świadkiem rozmowy.  
 he.nom witness.instr conversation.gen  
 ‘Some days later **he** witnessed a conversation.’
- b. \* Parę dni później byłem  
 some days later was.past.1sg.m  
**ja** świadkiem rozmowy.  
 I.nom witness.instr conversation.gen  
 ‘Some days later **I** witnessed a conversation.’

Summarizing we can state the following: Ru has only overt weak subject pronouns. We find them for all person/number configurations. Cz, by contrast, doesn't have any overt weak subject pronouns – neither for the third person nor for first or second persons. Hence, in Cz the null subject has to appear when a weak pronoun is required. Among the three languages investigated Po is the only one that has both null and overt weak subject pronouns. However, overt weak subject pronouns are available for the third person only.

The three languages behave exactly as expected. Compare:

(48) *Implications*

- If a language has first and second person overt weak pronouns, it will also have third person overt pronouns. (Ru)
- If a language has no overt weak pronoun for third person, it will also have none for first and second persons. (Cz)
- If a language provides overt weak pronouns only for part of the person/number paradigm, it will have them for third person, not for first or second persons. (Po)

## 6.3. Conclusion

It should have become clear that it is the pronominal systems of the languages (i.e., grammar as such) that determine subject realization. As it turns out some form of scales is compatible with the various outputs of the grammars involved. But from this it cannot be concluded that scales are a priori.

Already Newmeyer (2002) claimed that prominence hierarchies are not grammatical primitives. We assume that scales are generalizations over large sets of linguistic data and thus an epiphenomenon of grammatical processes. This is in line with assumptions made by Brown et al. (2004).

**Sources**

- AG80 *Russkaja grammatika*. Edited by N. Ju. Švedova. Volume I. Moskva: Nauka. 1980.
- Ajtm Čingiz Ajtmatov: Rannie žuravli. In: *Rannie žuravli: Povesti*. Alma-Ata: Žazušy. 1988, 345-414.
- DV Anton Čexov: Djadja Vanja. In: *P'esy*. Paris: Bookking International. 1994, 53-92.
- Lesk Nikolaj Leskov: *Ledi Makbet Mcenskogo uezda. / Die Lady Macbeth aus dem Landkreis Mzensk*. Stuttgart: Philipp Reclam jun. 2004.
- Mak Vladimir Makanin: Kavkazskij plennyj. In: *Novyj mir* 4 (80), April 1995, 3-19.
- MiM Mixail Bulgakov: *Master i Margarita*. (scanned text)
- Part Ekaterina Bjalik: Anna Netrebko – zvezda XXI-go veka. In: *Partner* 1 (24), January 2005, 55.
- Put Putin dal interv'ju narodu, 23.12.2001. <http://www.gzt.ru/>, 27.07.2004.
- Ryb Anatolij Rybakov: *Deti Arbata*. Minsk: Vyšějšaja škola. 1988.
- Sneg Sergej Snegov: *Vtorženie v Persej*. Leningrad: Lenizdat. 1968.
- Tri Tri medvedja. In: *Russkie skazki*. Moskva: Russkij jazyk. 1985, 126-127.

## References

- Aissen, J. (1999): Markedness and Subject Choice in Optimality Theory. In: *Natural Language & Linguistic Theory* 17, 673-711.
- Alexiadou, A. & E. Anagnostopoulou (1998): Parametrizing Agr: Word Order, V-Movement, and EPP-Checking. In: *Natural Language & Linguistic Theory* 16, 491-539.
- Artstein, R. (1999): Person, animacy and null subjects. In: Cambier-Langeveld, T., Lipták, A., Redford, M. & E.J. van der Torre (eds.): *Proceedings of Console VII*. Leiden: SOLE, 1-15.
- Avrutin, S. & B. Rohrbacher (1997): Null Subjects in Russian Inverted Constructions. In: *Proceedings of the Fourth Annual Workshop on Formal Approaches to Slavic Linguistics*. Ann Arbor: Michigan Slavic Publications, 32-53.
- Barbosa, P. (1995): *Null Subjects*. Ph.D. dissertation. MIT.
- Berger, T. (1993): *Das System der tschechischen Demonstrativpronomen. Textgrammatische und stilspezifische Gebrauchsbedingungen*. Habilitation thesis. Ludwig-Maximilians-Universität München.
- Borer, H. (1986): I-subjects. In: *Linguistic Inquiry* 17, 375-416.
- Bresnan, J. (2001): The emergence of the unmarked pronoun. In: Legendre, G., Grimshaw, J. & S. Vikner (eds.): *Optimality-theoretic Syntax*. Cambridge, MA: The MIT Press, 113-142.
- Brown, J. et al. (2004): The Person Hierarchy: Primitive or Epiphenomenal? Evidence from Halkomelem Salish. Ms. University of British Columbia. To appear in *Proceedings of NELS 34*.
- Butt, M. & T. Holloway King (2000): Null Elements in Discourse Structure. Paper presented at the Seminar on NULLs, Delhi University, 1997. Downloadable at <http://ling.uni-konstanz.de/pages/home/butt/nulls97.pdf>
- Cardinaletti, A. & M. Starke (1999): The typology of structural deficiency: A case study of the three classes of pronouns. In: Riemsdijk, H. van (ed.): *Clitics in the Languages of Europe*. Berlin/New York: Mouton de Gruyter, 145-233.
- Chomsky, N. (1981): *Lectures on Government and Binding*. Dordrecht, Holland/Providence R.I., U.S.A.: Foris.
- Chomsky, N. (1982): *Some Concepts and Consequences of the Theory of Government and Binding*. Cambridge, Mass./London, England.
- Franks, S. (1995): *Parameters of Slavic Morphosyntax*. New York/Oxford: OUP.

- Fehrmann, D. & U. Junghanns (2008): 'Missing' and 'Misplaced' Subjects in Russian (and other Slavic languages). Paper presented at GLiP-6, Warsaw, April 5-6, 2008.
- Givón, T. (1983): Topic continuity and word order pragmatics in Ute. In: Givón, T. (ed.): *Topic Continuity in Discourse. A Quantitative Cross-Language Study*. Amsterdam: Benjamins, 141-214.
- Givón, T. (1984): *Syntax. A Functional Typological Introduction*. Amsterdam: Benjamins.
- Górna, M. (1976): Word Order – A Semantic Phenomenon? In: *Papers and Studies in Contrastive Linguistics* 5, 201-217.
- Grimshaw, J. & V. Samek-Lodovici (1998): Optimal Subjects and Subject Universals. In: Barbosa, P. et al. (eds.): *Is the Best Good Enough? Optimality and Competition in Syntax*. Cambridge, Mass.: MIT Press, 193-219.
- Gundel, J. et al. (1993): Cognitive Status and the Form of Referring Expressions in Discourse. In: *Language* 69.2, 274-307.
- Holmberg, A. (2005): Is there a Little Pro? Evidence from Finnish. In: *Linguistic Inquiry* 36, 533-564.
- Huang, C.-T.J. (1984): On the distribution and reference of empty pronouns. In: *Linguistic Inquiry* 15, 531-574.
- Jaeggli, O. & K. Safir (1989): The Null subject parameter and Parametric Theory. In: Jaeggli, O. & K. Safir (eds.): *The Null Subject Parameter*. Dordrecht: Kluwer, 1-44.
- Jakobson, R. (1939): Signe Zéro. In: *Mélanges de linguistique offerts à Charles Bally*. Genève, 143-152. Reprinted in: Jakobson, R. (1971): *Selected Writings*. Vol. II: *Word and Language*. The Hague/Paris, 211-219.
- Jelinek, E. (1984): Empty categories, case and configurationality. In: *Natural Language & Linguistic Theory* 2, 39-76.
- Kato, M.A. (2000): The partial *pro*-drop nature and the restricted VS order in Brazilian Portuguese. In: Kato, M.A. & E.V. Negrão (eds.) (2000): *Brazilian Portuguese and the Null Subject Parameter*. Frankfurt/Main: Vervuert, 223-258.
- Koktová, E. (1992): Anaphoric expressions across clause boundary in *pro*-drop languages. In: *Prague Bulletin of Mathematical Linguistics* 58, 39-63.
- Kosta, P. (1990): Zur formalen Lizenzierung und inhaltlichen Determination leerer Subjekte im Russischen. In: Breu, W. (ed.): *Slavistische Linguistik 1989. Referate des XV. Konstanzer Slavistischen*

- Arbeitstreffens Bayreuth 18.-22.9.1989* (= *Slavistische Beiträge*; 260). München: Sagner, 117-165.
- Lindseth, M. (1998): *Null-Subject Properties of Slavic Languages. With Special Reference to Russian, Czech and Sorbian*. München: Sagner.
- Lindseth, M. & S. Franks (1996): Licensing and Identification of Null Subjects in Slavic. In: Toman, J. (ed.): *Formal Approaches to Slavic Linguistics: The College Park Meeting*. Ann Arbor: Slavica, 199-225.
- Manzini, M.R. & L. Savoia (2002): Parameters of subject inflection in Italian dialects. In: Svenonius, P. (ed.). *Subjects, expletives and the EPP*. Oxford: OUP, 157-200.
- Meyer, R. (2007): A diachronic take on null Subjects in Russian and Czech. Paper presented at the BASEES 2007 conference, Cambridge, England, March 31, 2007.
- Müller, G. (2005): Pro-Drop and Impoverishment. Ms. Universität Leipzig.
- Müller, G. & B. Rohrbacher (1989): Eine Geschichte ohne Subjekt. Zur Entwicklung der *pro*-Theorie. In: *Linguistische Berichte* 119, 3-52.
- Neeleman, A. & K. Szendrői (2005): Radical Pro Drop and the Morphology of Pronouns. Ms.
- Newmeyer, F.J. (2002): Optimality and Functionality: A Critique of Functionally-based Optimality-theoretic Syntax. In: *Natural Language & Linguistic Theory* 20, 43-80.
- Nichols, J. (1985): The Grammatical Marking of Theme in Literary Russian. In: Brecht, R.D. & M.S. Flier (eds.): *Issues in Russian Morphosyntax*. Columbus: Slavica.
- Oliveira, M. de (2000): The pronominal subject in Italian and Brazilian Portuguese. In: Kato, M.A. & E.V. Negrão (eds.) (2000): *Brazilian Portuguese and the Null Subject Parameter*. Frankfurt/Main: Vervuert, 37-54.
- Perlmutter, D.M. (1971): *Deep and Surface Constraints in Syntax*. New York: Holt, Rinehart and Winston.
- Platzack, C. (2003): Agreement and null subjects. In: *Nordlyd* 31.2, 326-355.
- Platzack, C. (2004): Agreement and the person phrase hypothesis. In: *Working Papers in Scandinavian Syntax* 73, 83-112.
- Prasad, R. (2000): A Corpus Study of Zero Pronouns in Hindi: An Account Based on Centering Transition Preferences. In: *Proceedings of DAARC 2000, Discourse Anaphora and Reference Resolution Conference*. Lancaster University, 66-71.
- Rizzi, L. (1982): *Issues in Italian Syntax*. Dordrecht: Foris.

- Rizzi, L. (1986): Null objects in Italian and the theory of *pro*. In: *Linguistic Inquiry* 17, 501-557.
- Roberts, I. (1993): *Verbs and Diachronic Syntax*. Dordrecht: Kluwer.
- Roberts, I. (2007): Taraldsen's Generalisation and Language Change: Two Ways to Lose Null Subjects. Ms., University of Cambridge.
- Růžička, R. (1986): Funkcionirovanie i klassifikacija pustyx kategorij v ruskom literaturnom jazyke. In: *Zeitschrift für Slawistik* 31, 388-392.
- Short, D. (1994): Czech. In: Comrie, B.S. & G.G. Corbett (eds.): *The Slavonic Languages*. London: Routledge, 455-532.
- Siewierska, A. (1988): Postposed Subject Pronouns in Polish. In: *Kwartalnik Neofilologiczny* 3/88, 315-330.
- Silverstein, M. (1976): Hierarchy of Features and Ergativity. In: Dixon, R. (ed.): *Grammatical Categories in Australian Languages*. Canberra: Australian Institute of Aboriginal Studies, 112-171.
- Taraldsen, K.T. (1978): On the nominative island condition, vacuous application and the *that*-trace filter. Ms. MIT. Distributed by the *Indiana University Linguistics Club*, Bloomington, Indiana.
- Tomioka, S. (2003): The semantics of Japanese null pronouns and its cross-linguistic implications. In: K. Schwabe & S. Winkler (eds.): *The Interfaces: Deriving and Interpreting Omitted Structures*. Amsterdam: Benjamins, 321-339.
- Weiss, D. (1993): Die Faszination der Leere: Die moderne russische Umgangssprache und ihre Liebe zur Null. In: *Zeitschrift für slavische Philologie* 53(1), 48-82.