Coordinated and quantified subjects as agreement controllers in Russian: an experimental approach

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1. Introduction

- If a subject consists of several elements with different phi-features, an agreement strategy is needed for choosing the features of a predicate. The acceptability of different strategies is often a subject of variability and depends on the language as well as certain intralingual parameters;
- Coordinated (&Ps) and quantified (QPs) subjects are such controllers in Russian (Patton 1969; Crockett 1976; Corbett 1985), but their properties have not been compared directly yet;
- In Russian, agreement in person is often overlooked in favor of gender and number; moreover, there is little experimental research in this area, despite the fact that the experimental methods are very useful for assessing acceptability variations;
- **The aim of this paper** is to compare the acceptability of different predicate agreement strategies with &Ps and QPs containing pronouns in pre- and post-position.

2. Methodology and procedure

- Two sets of experiments, each consisting of one SV experiment and one VS experiment;
- AJT method with the Likert scale from 1 (»very bad sentence") to 7 ("very good sentence»);
- Test stimuli to fillers ratio = 1:1; one half of the fillers are grammatical, the other half contains errors in the case choice and/or temporal and aspectual coherence;
- The experiments are created with the use of the PCIbes Farm (Zehr & Schwarz 2022);
- Respondents are recruited via social networks and the crowdsourcing platform Yandex.Toloka;
- All respondents completed a short sociolinguistic questionnaire, including their age, cities of birth and residence, education, and a consent checkbox for their personal data processing;
- The Likert scale ratings were normalized (z-transformed), then statistically analyzed with the use of the Linear Mixed Models and Tukey's HSD pairwise comparison;

Coordinated subjects

Agreement strategies:

- **Resolution,** i.e. personal hierarchy (Zwicky 1997)
  Number is plural, person/gender/noun class is computed based on what values the conjuncts have
- Partial agreement (i.e. **Closest Conjunct Agreement**, CCA)
  One of the conjuncts is ignored
  Widely attested in VS-languages and in particular contexts in languages whose primary strategy is the resolution (Nevins & Weisser 2018)
- **Default agreement** (3rd person)

Design: 4 × 2, 32 experimental sets in total

- verb form: 1pl (resolution), 1sg / 2sg (CCA), 3pl ("default")
- conjunct order: 1sg *and* 2sg (*ja i ty*) / 2sg *and* 1sg (*ty i ja*)

(1) [***Ja i ty*** / ***ty i ja***] [*stroim / stroju / stroiš / strojat*] *krepost' iz snega.*
I and you / you and I build.1PL b.1SG b.2SG b.3PL fort from snow

(2) *Krepost' iz snega* [*stroim / stroju / stroiš / strojat*] [***ja i ty*** / ***ty i ja***]
fort from snow build.1PL b.1SG b.2SG b.3PL I and you / you and I

'You and I are buiding a snow fort'

Quantified subjects

Agreement strategies (cf. Lyutikova 2022):

- With a **quantifier**
- With a **restrictor**
- **Default agreement**

Availability of a quantifier/restrictor depends on the structure and hierarchy within a phrase

Design: 2 × 2 × 2 × 3, 48 experimental sets in total

- quantifier: *dvoje* 'two of', *vse* 'all of'
- pronoun: *my* 'we', *oni* 'they'
- quantifier type: *elective* ("two of us"), *nominative* ("we two")
- verb form: 1pl (with a pronoun), 3pl (with a pronoun / a quantifier), 3sg (default)

(3) [***Dvoje / vse***] ***iz*** [***nas / nix***] [*zapišemsja / zapišutsja / zapišetsja*] *v sportivnyje sekcii.*
two all from us them enroll.1PL e.3PL e.3SG in sports clubs

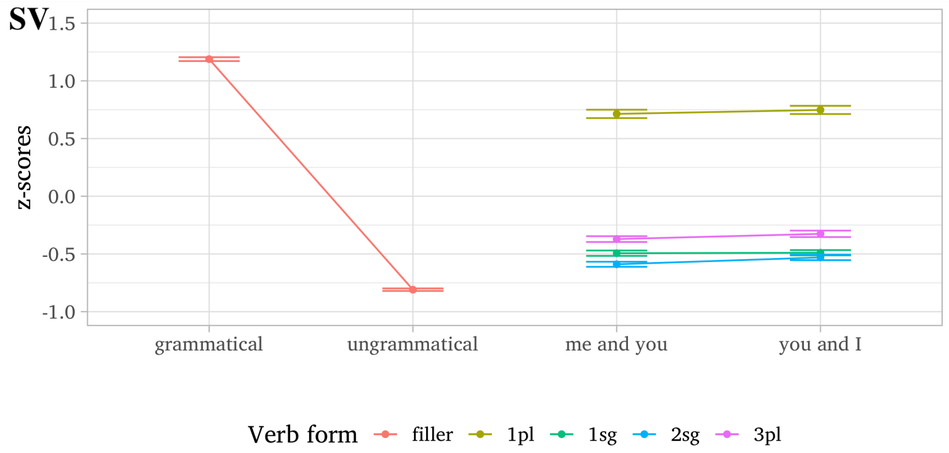
(4) *V sportivnyje sekcii* [*zapišemsja / zapišutsja / zapišetsja*] [***dvoje / vse***] ***iz*** [***nas / nix***].
in sports clubs enroll.1PL e.3PL e.3SG two all from us them

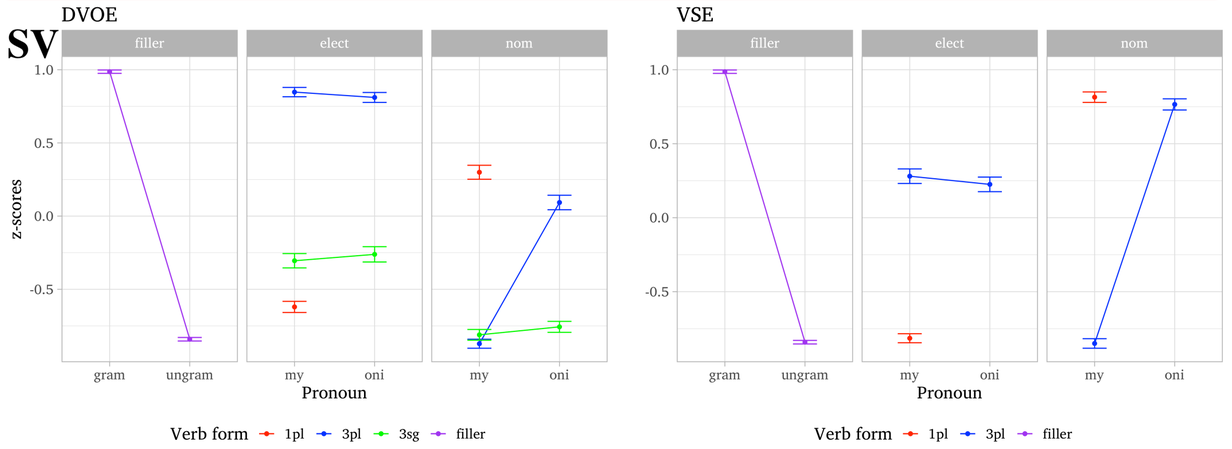
'Two / all of us (them) are going to sign up for sports clubs'.

(5) [***My / oni***] [***dvoje / vse***] [*zapišemsja / zapišutsja / zapišetsja*] *v sportivnyje sekcii.*
we they two all enroll.1PL e.3PL e.3SG in sports clubs

(6) *V sportivnyje sekcii* [*zapišemsja / zapišutsja / zapišetsja*] [***my / oni***] [***dvoje / vse***].
in sports clubs enroll.1PL e.3PL e.3SG we they two all

'We (they) two / all are going to sign up for sports clubs'.



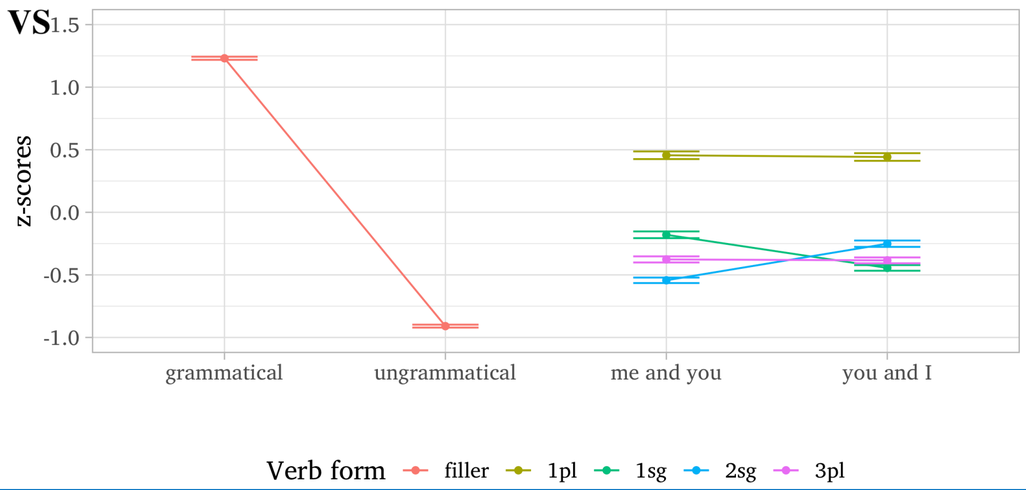


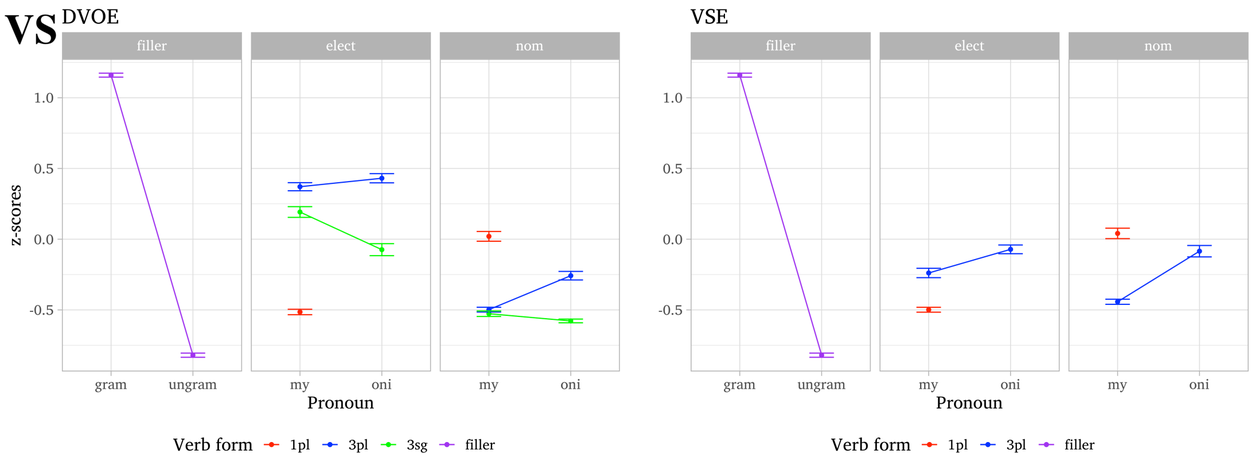
SV-exp.: 107 respondents (19-72 y.o., ∅ = 38.59). **LMM:** 1 + verb form + (1 | respondent)

- No significant difference between two conjunct orders (*me and you* vs. *you and me*)
- Statistically significant differences between all four verb forms
- Even the lowest conditions are significantly higher than the ungrammatical fillers
- Acceptability hierarchy: 1pl > 3pl > 1sg > 2sg

SV exp.: 87 respondents (20-69 y.o., ∅ = 39). **LMM:** 1 + quantifier * type * verb form * pronoun + + (1 + verb form + pronoun | respondent)

- For the elective type, only quant. agreement (3pl), but not pron. agreement (1pl) is acceptable
- For the nominative type, only pronoun agreement (1pl/3pl) is acceptable
- Default agreement is possible only with the elective type constructions
- The lowest conditions are on the same level as the ungrammatical fillers





VS-exp.: 126 respondents (17-76 y.o., ∅ = 34.54). **LMM:** 1 + conjunct order * verb form + + (1 | respondent) + (1 | sentence)

- Statistical significance of the verb form factor and its interaction with the conjunct order factor
- 1pl and 3pl ratings do not depend on the conjunct order, 1sg and 2sg are rated significantly higher when preceded by the corresponding verb form

VS-exp.: 112 respondents (18-66 y.o., ∅ = 38.4). **LMM:** 1 + quantifier * type * verb form * pronoun + (1 | respondent) + (1 | sentence)

- For the elective type, quantifier and default agreement (3pl / 3sg) are equally acceptable, pronoun agreement is rated lower
- For the nominative type, pronoun agreement is rated the highest, quantifier and default agreement are rated lower and on the same

4. Discussion

- **&P results**: all four verb forms are rated higher than the ungrammatical fillers in both experiments, so they are all possible. The resolution strategy (1pl) is obviously superior (in line with prescriptive Russian grammars). Besides that, there are no signs of the CCA in the SV word order, but a clear CCA in the VS one;
- The high ratings of 3pl are interesting as there is no conjunct of 3rd person. The "true" default form in Russian is 3sg. The nature of the number and person features adopted by the verb is to be investigated further;
- **QP results**: the gap between acceptable and unacceptable strategies in two word orders is much more striking than in the &P experiments. The VS word order raises the acceptability of those strategies that are impossible in the SV one. This is the point of similarity between two sets of experiments;
- Two types of quantified constructions behave differently. In some languages, pronouns in the restrictor of elective QPs are accessible for agreement, but in Russian, it is only marginally acceptable. In turn, in nominative QPs, the pronoun demonstrates head-like properties. None of the QP constructions exhibits a linear-based influence on the agreement;

References **Corbett G. (1983).** Hierarchies, Targets and Controllers. Agreement Patterns in Slavic. London & Canberra: Croom Helm. **Crockett D. (1976).** Agreement in contemporary standard Russian. Cambridge, MA: Slavica Publishers. **Lyutikova E. (2022).** Agreeing inflected quantifiers, intensifiers and anaphors as derived personal pronouns: Evidence from Tatar. Word structure 15(3), p. 380-401. **Nevins A. & Weisser P. (2018).** Closest Conjunct Agreement. Annual Review of Linguistics 5(1), p. 219–241. **Patton H. (1969).** A Study of the Agreement of the Predicate with a Quantitative Subject in Contemporary Russian. PhD diss. University of Pennsylvania. **Zehr J. & Schwarz F. (2022).** PennController for Internet Based Experiments (IBEX). **Zwicky A. (1997).** Hierarchies of Person. Papers from the Chicago Linguistics Society Meeting, p. 714–733.

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