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Overt, Omitted and Cliticized Structural Arguments in Preschool Speakers of Serbian Dialectal Varieties

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Abstract The paper explores two hypotheses: that the acquisition of clitics in Serbo-Croatian includes a stage in which children generalize pro as the uninflected clitic pronoun for both subjects and direct objects, before acquiring the inflection for the object clitic, and that the acquisition of object clitics in the standard variety is facilitated by a higher degree of grammaticalization of these clitics, and consequently also a higher frequency. Results of an investigation with picture-based narratives are reported and discussed, in which the predictions of these two hypotheses are quantitatively tested and confirmed.

Keywords Structural arguments. Clitics. Omission. Repetition. Language development. Bilingualism. Geographic variation.

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1 Introduction

The present study investigates L1 acquisition of the expression of direct objects in Serbo-Croatian (SC). The central question concerns the acquisition of object clitics in SC. As object clitics express discourse old referents, the focus is also on the two most frequent alternative strategies in the expression of direct objects: null objects and anaphoric lexical nominal expressions. The two central topics are: the differences between the status of discourse old direct objects in preschoolers' and adults' grammars and the effects of bilingualism between two dialects on the process of acquisition.

The paper is organized as follows. In the rest of this section, I discuss the relevance of the research, present the use of the three strategies of expression of direct objects in the adult grammar of SC, the dimension of geographic variation, some background information about the acquisition of clitics and null arguments, and formulate the hypotheses and predictions. Section 2 presents the empirical research: the design and materials, the demographic and geographic information about the participants, the procedure, the results and their discussion. Section 3 concludes the paper.

1.1 Relevance of the Research

This study directly contributes to the research on language acquisition, and indirectly also to the theory of grammar.

In language acquisition, null constituents (e.g. Zhu, Gavarró 2019) and clitics (Varlokosta et al. 2016) have been observed to show specific tendencies characterizing various phases in the language development. The current study contributes to the understanding of the relation of these two types of defective linguistic elements in the process of acquisition.

By investigating the effects of bilingual acquisition at the level of microvariation, i.e. between two dialects sharing a significant part of both grammar and the lexicon, the study provides further evidence for the delay due to bilingual acquisition (e.g. Schulz 2013), but also for the facilitating effect of the dominant language on the acquisition of an aspect of grammar in the non-dominant language, when this aspect has a higher degree of grammaticalization in the former (e.g., Müller 1998).

Finally, by establishing a link between the *pro* (the zero pronoun, traditionally referred to as the dropped pronoun, e.g. Rizzi 1986) and the overt object clitic (e.g. Spencer, Luis 2012), the study supports the theoretical analysis of *pro* as the uninflected realization of the clitic, i.e. of the overt clitics as inflected instances of *pro* (thus identifying the defective stem of *pro* with a zero realization, see e.g. Cardinaletti, Starke 1999).

1.2 Clitic and Null Arguments in SC

Both clitic and null arguments are conditioned by the old information status of their referents. Consider the minimal pairs from SC in (1), where (1a) is a context in which the subject in the answer conveys new information, and therefore cannot be omitted, while in (1b) its referent is old in the discourse and more saliently expressed by a null subject.

(1) a. A: Ko je zvao, Petar ili Jelena?
who AUX called Petar or Jelena
'Who called, Petar or Jelena?'
B: On/Petar je zvao.
he/P AUX called
B': *Zvao je.
called AUX
'He called.'

b. A: Koga je Petar zvao?
who AUX Petar called
'Who did Petar call?'
B: ??Jelenu je zvao on/Petar.
Jelena AUX called he/P
B': Jelenu je zvao.
Jelena AUX called
'He called Jelena.'

The same contrast, when the object position is the target, illustrates the inadequacy of clitics when conveying new information (2a) and their appropriateness with old information referents (2b).

(2) a. A: Koga si zvao Petra ili Jelenu
who AUX.2SG called Petar or Jelena
'Whom did you call, Petar or Jelena?'
B': Zvao sam Petra/njega
called AUX.1SG P/him
B'': *Zvao sam ga
called AUX.1SG him.CL
'I called him.'

b.	A:	Ko	je	zvao	Petra
		who	AUX	called	Petar
		'Who called Petar?'			
	B:	??Jelena	je	zvala	njega/Petra
		Jelena	AUX.SG	called	him/P
	B':	Jelena	ga	je	zvala
		Jelena	him.CL	AUX.SG	called
		'Jelena called him.'			

Considering that SC has no subject clitics, the two pairs of examples indicate that in SC, the grammatical and pragmatic status of the null subject at least partially parallels that of clitic objects. Considering that the nominative ending in SC is zero, and that clitics have the shape of the final morpheme in full pronouns (including the theme vowel when the ending is just a consonant), as illustrated in Table 1, this opens up the analytic possibility that *pro* is the stem of the clitic.

Table 1 Comparison of pronouns, their case endings and clitics in SC (only masculine)

Case	Full pronoun	Clitic	Clitic in children
NOM	*on-Ø-Ø*	pro-*Ø*	pro-*Ø*
GEN/ACC	*nj-e-ga*	pro-*ga*	pro-*Ø*
DAT	*nj-e-mu*	pro-*mu*	pro-*mu*
NOM	*on-i-Ø*	pro-*Ø*	pro-*Ø*
GEN/ACC	*nj-i-h*	pro-*i-h*	pro-*i-h*
DAT	*nj-i-ma*	pro-*i-m*	pro-*i-m*

Object omission attested in children's language in the contexts where adults use clitics can then be explained as the generalization of the uninflected clitic for both structural arguments, as in the third column in Table 1. Children may find support for this analysis in the abundant syncretism between nominative and accusative in several classes of declinable words (inanimates of class 1 and all class 2 and class 4 nouns in the singular, class 2, 3 and 4 nouns in the plural, the adjectives agreeing with these forms, some demonstrative and *wh*-pronouns, see (3) for illustration). The maturing aspect is then in establishing that clitic pronouns do show inflection in the accusative case.

(3)	a.	krov	b.	zvono	c.	kap	d.	čaše
		roof.NOM/ACC		bell.NOM/ACC		drop.NOM/ACC		glasses.NOM/ACC
		'roof'		'bell'		'drop'		'glasses'

e.	zvona	f.	kapi	g.	to	h.	belo
	bells.NOM/ACC		drops.NOM/ACC		that.NOM/ACC		white.N.SG.NOM/ACC
	'bells'		'drops'		'that'		'white'

While object omission is inappropriate in some of the contexts which favor the clitic, it is not generally banned in SC. Objects in SC can be null, but under different grammatical and pragmatic licensing than repeated and clitic objects. SC null objects for instance occur in contexts where a constituent other than the object or the verb is under narrow focus. This is why in (4a), where the predicate bears narrow focus, the null object expression is strongly degraded. In (4b), the verb realizes the *verum* focus, as opposed to narrow focus, and the null object is acceptable. This example also shows that the null object is a different type of item than clitics, since it can be used in contexts where the heterogeneous structure of the intended referent blocks the use of any pronoun, including clitics.[1] Repeated objects (B" replies in both examples) are pragmatically degraded whenever another mode of expression is acceptable.

(4) a. A: Hoće Petar popraviti Mariji ogrlicu?
WILL Petar fix Marija necklace
'Will Petar fix Marija's necklace?'
B: Ne, baciće je
no throw.FUT it.CL
B': ?Ne, baciće
no throw.FUT
B": ?Ne, baciće ogrlicu
no throw.FUT necklace
'No, he will throw it away.'

b. A: Jel Petar poslao Mariji ogrlicu knjigu i šest jabuka?
AUX.Q Petar sent Marija necklace book and six apples
'Did Petar send Marija the necklace, the book and six apples?'
B: ??Poslao ih je / *Poslao je njih
sent them.CL AUX sent AUX them
B': Poslao je
sent AUX
B": ?Poslao je ogrlicu knjigu i šest jabuka
sent AUX necklace book and six apples
'Yes, he did.'

1 For elaboration on the syntactic and semantic nature of null objects, see Huang 1984.

There are also other strategies of expression of discourse-old direct objects, such as strong pronouns, newly introduced descriptions (usually a different, synonymous or hypernymous noun, but sometimes also a noun referring to a different set that the referent is member of). As these other strategies are relatively rare, especially in children's narratives, they are not discussed here.

1.3 Acquisition of Clitics and Null Arguments

Research on the acquisition of pronouns, clitics and null elements in the object position delivers somewhat conflicting results. Works like Marinis (2000), Baauw et al. (1999, 2011) and Varlokosta (2000) provide evidence that the acquisition of clitic pronouns is completed later than the acquisition of full pronouns in a range of languages. Varlokosta et al. (2016), in a cross-linguistic investigation, establish that already at the age of five, children properly identify the contexts of use of pronouns and select the proper forms. They too observe some departures from the adult use, in particular in choosing between strong pronouns, weak pronouns and clitics. While in adults, these choices are based on a spectrum of pragmatic considerations, children tend to go for the weakest form available – a clitic in clitic languages and a weak pronoun in others. This sets aside the weakest form of expression: null elements. Varlokosta et al. observe that null objects are not attested in significant quantities at any stage of acquisition in those languages in which in adult language, null objects are ungrammatical or strongly restricted.

Other works, like Jakubowicz et al. (1996), Schmitz et al. (2004), Wexler et al. (2003; 2004), Pérez-Leroux (2018), and Anđelković (2012) for SC, identify a higher use of null objects in children's language in positions in which they are not attested in the adult language. This is in line with Varlokosta et al.'s generalization that children prefer the simplest form, as long as the availability of the form in the language is taken as a separate constraint which can be violated. It is hence expected that before acquiring the system with both null and clitic arguments, the child passes through stages in which null realization is generalized, or at least less restricted (Anđelković 2012 for SC).

Varlokosta et al. open the question why in certain languages children do, and in others do not produce more null objects than adults, i.e., why in some languages they bottom the hierarchy of strength of pronouns at the level of clitics and in others at the level of the zero pronoun. The present paper contributes to answering these questions.

1.4 Dialectal Variation and Language Acquisition in SC

There are three large SC dialect groups in Serbia: Neoshtokavian, Oldshtokavian and Torlakian. All three varieties are shtokavian and ekavian, they share most parameters of grammar, but also display some significant differences. Neoshtokavian dialects are the base for the standard SC. They are characterized by preserving the full 7-membered case system, and having developed a hybrid lexical prosody involving both tone and stress, as the most prominent distinctive properties. Children from this dialect zone have an approximately monolingual acquisition. The other two dialect groups depart from the standard, resulting in a bilingual acquisition for their speakers. Oldshtokavian dialects present the state which departs the least from the older varieties of SC. It is slightly affected by the Balkan Sprachbund processes, e.g. in having slightly simplified their case system and lost the infinitive, but shares the pronominal system for the most part with the standard (apart from some strictly lexical differences). Torlakian dialects are most strongly affected by the Balkan Sprachbund tendencies: they have a highly simplified case system (only two forms) – but some varieties have developed a definite article, lexical prosody which only involves stress and, in some domains, distributes it in a templatic way, and a more analytic morphology than the other two groups. Importantly, Torlakian dialects differ from the other two groups in involving clitic doubling (Tomić 1996) – a configuration whereby an argument is realized twice: once by a full pronoun or a full-fledged nominal expression, and once by a clitic, as illustrated in (5).

(5) a. Dečak ga je uzeo
boy it.CL AUX taken
'The boy took it.'

b. Dečak je uzeo zmaja
boy AUX taken kite
'The boy took the kite.'

c. Dečak je njega uzeo
boy AUX it taken
'The boy took it.'

Pronominal clitics hence have a higher degree of grammaticalization in these dialects, and are also more frequent. Torlakian children are therefore expected to acquire pronominal clitics earlier and use them more frequently than their peers from other dialect groups. To experimentally investigate whether a higher degree of grammaticalization and a higher frequency of clitics in the dominant local variety facilitates the acquisition also in the non-dominant

standard variety, two control groups are needed: one in which the children acquire only one variety (as the base-line), and one in which they acquire two with similar pronominal systems, crucially – neither of which has clitic doubling (in order to eliminate bilingual acquisition alone as the facilitating factor, i.e. as the bilingual base-line).

This is exactly what is provided by the described dialectal situation. Neither Neo- nor Oldshtokavian have clitic doubling, but otherwise the pronominal systems of the three varieties are the same. Oldshtokavian children have a bilingual and Neoshtokavian children have monolingual acquisition. Therefore, Neoshtokavian qualifies as the overall base-line and Oldshtokavian as the bilingual base-line.

1.5 Hypotheses and Predictions

The hypotheses investigated are formulated in (6).

(6) H1: In bilinguals, a higher degree of grammaticalization of a property in the dominant grammar facilitates the acquisition of the same property in the non-dominant language (e.g. Müller 1998, and a lot of subsequent research).
H2: Clitics are inflected *pro*'s, i.e. *pro* is an uninflected clitic.

I target specifically the predictions of the hypotheses above formulated in (7), respectively.

(7) P2: Children in the Torlakian dialect zone will have the highest rate of use of clitics and the lowest rate of omission in the object position compared to both control groups: children acquiring a single variety and children acquiring two dialects with the same status of clitics.
P3: Children with a higher share of *pro* in the subject position will also produce more null and /or more clitic objects.

An experiment was designed and conducted to test these predictions.

2 Elicited Production Study

The goal of the experiment was to obtain natural linguistic data, while imposing sufficient restrictions to guarantee comparability. I used data that were obtained in an independent investigation of preschoolers' language, which turned out to neatly fit the requirements. The adult data are gathered by myself.

2.1 Design and Materials

The experiment conducted consisted in asking the participant to tell a story based on four ordered pictures. These were then annotated for all the relevant variables. Children from all Serbian dialect zones were included.

a. Independent and Dependent Variables Adopted

The following independent variables were included:

- the dialect group, a categorical variable; levels: Neoshtokavian, Oldshtokavian, Torlakian.

The dependent variables included in the research were all scalar, standing for the percentages of:

- the quantity of objects realized by clitics.
- the quantity of objects realized by repeated nominal expressions.
- the quantity of objects realized as null.
- the quantity of subjects realized as null.

The last dependent variable has the role of a predictor variable, as we are interested in the extent to which the quantities of the omitted objects and those expressed by clitics are predicted by the quantity of omitted subjects.

b. The Stimulus and Its Properties

Only one stimulus, presented in (8), was used in the experiment: a set of four ordered grayscale pictures representing mutually connected events, thus giving ground for a simple and easily constructed story.

(8) The stimulus used in the experiment

Expressions relevant for the target hypotheses were transitive verb phrases, such that their (intended) direct object has already been

introduced in the discourse. This is illustrated in (9) where the three available options are illustrated: the direct object can be expressed by a clitic as in (9b), the best fitting option in the adult grammar; it can be omitted as in (9c), strongly grammatically degraded in the adult grammar for the given context (see section 1.2); or it can be repeated as in (9d), an option which is grammatical, but stylistically marked.

(9) a. Zmaj se zaglavio u drvetu
kite REFL stuck in tree
'The kite got stuck in the tree.'
b. Dečak ga je izvukao
boy it.CL AUX pulled_out
c. Dečak je izvukao
boy AUX pulled_out
d. Dečak je izvukao zmaja
boy AUX pulled_out kite
'The boy pulled it out.'

H1 predicts less of pattern (9b) and more of those in (9c, d) in children compared to adults.

Also relevant, as a non-manipulated predictor variable, is the quantity of omitted and repeated subjects, illustrated in (10), where the null subject in (10b) is neutral in the adult language, while (10c) is strongly stylistically marked.

(10) a. Devojčica je razgovarala sa dečakom
girl AUX talked with boy
'The girl was talking to the boy.'
b. Puštala je zmaja
flown AUX kite
c. Devojčica je puštala zmaja
girl AUX flown kite
'The girl was flying the kite.'

According to H3, the quantity of null subjects should predict the quantity of null and clitic objects, and the quantity of repeated subjects the quantity of repeated direct objects.

2.2 Participants

The experiment included 371 participants, all preschool children (233 girls, 138 boys, mean age 77.33 months, st. dev. 6.91), native

speakers of SC. Among them, 253 were from the Neoshtokavian, 39 from the Torlakian and 79 from the Oldshtokavian zone. The number of children per dialect reflects the distribution of the general population of Serbia.

2.3 Procedure

The procedure consisted in presenting the participant with the pictures, and then asking them to observe them and narrate what is happening on them. The experimenter wrote down the entire narrative, including pauses and pause-filler sounds, errors, corrections and gestures. All 25 experimenters, to whom I am grateful for the great work, are speech therapists with experience in similar tasks. Together with detailed instructions, this guaranteed uniform procedure. The notes were analyzed and annotated for the dependent variables by the author.

Annotation did not include information about acceptability in the adult language, as it was difficult both to reconstruct the intended information structure (i.e. intonation) and to establish a uniform scale. While the obtained measure is still indicative of the number of unacceptable uses too, especially when compared with the quantities in the adult language, the annotation of unacceptable cases would more likely give statistically significant effects, and is a task to be tackled in future research.

2.4 Results

a. Predictions of H1 concern the comparison between the dialects. The relevant quantities are the quantities of objects expressed by the respective strategy: omission, repetition or clitics. The absolute number of objects expressed through one strategy correlates with the number of sentences produced by the participant (i.e. with fluency), which further may correlate with the degree of language development. To avoid this possible confound, I factored the number of produced objects in each strategy by the maximal number of possible objects selected by the verbs which were used in the narrative (i.e. with the number of verbs selecting nominal expressions as direct objects). The compared values are the shares of each strategy in the aggregate number of objects per narrative (the remaining share in each dialect are discourse nw direct objects).[2] Indeed, Torlakian children have a

2 I also performed calculations on the absolute numbers, and they yield equivalent results.

higher rate of clitics and a lower rate of omission than both base-line groups, as shown in Table 1 and in Figure 1.

Table 2 Quantities of clitic, omitted and repeated objects in the three dialect groups

Object type	Oldshtokavian	Neoshtokavian	Torlakian
Clitic objects	21.49%	28.47%	35.7%
Omitted objects	14.47%	17.79%	8.68%
Repeated objects	33.62%	22.34%	25.64%

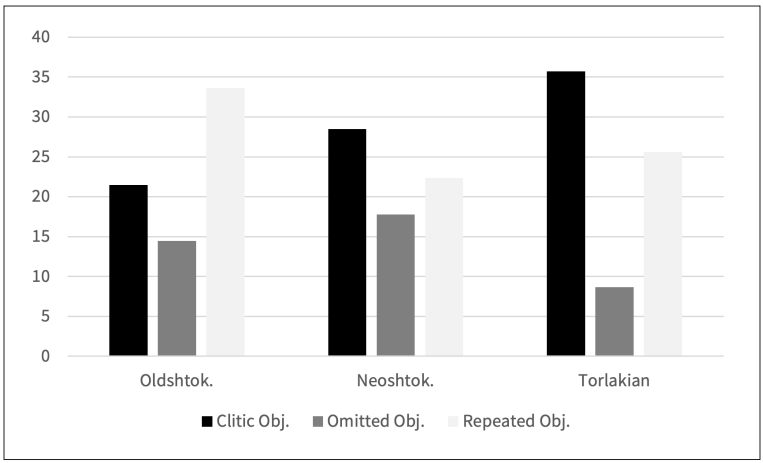

Figure 1 Quantities of clitic, omitted and repeated objects in the three dialect groups

To test the effect of the availability of clitic doubling in the dialect, I fitted a linear mixed effects model. I coded the two relevant properties of dialects, bilingual acquisition and the availability of clitic doubling in terms of zero for monolingual acquisition and for lack of clitic doubling, respectively, and one for bilingual acquisition and for the availability of clitic doubling, respectively. I used the function *lmer* from the R's package *lme4* (Bates et al. 2015), with the numerical value of the day of the experiment as the random factor. The functions used and the results obtained are given in (11), showing a positive effect of the availability of clitic doubling and a negative effect of bilingual acquisition on the quantity of produced clitics, as well as a positive effect of bilingual acquisition on the quantity of repeated subjects, and no significant effect in the remaining combinations.

(11) a. lmer(RatioCliticObj ~ Biling + Doubling + (1|DayExp), data = Arg)
Biling: β = -0.07, SE = 0.04, z(361) = -1.989, p = 0.0475
Doubling: β = 0.14, SE = 0.05, z(361) = 2.698, p = 0.0073

b. lmer(RatioRepeatObj ~ Biling + Doubling + (1|DayExp), data = Arg)
Biling: β = 0.11, SE = 0.03, z(361) = 3.456, p = 0.0006
Doubling: β = -0.07, SE = 0.05, z(361) = 1.628, p = 0.1044
c. lmer(RatioOmitObj ~ Biling + Doubling + (1|DayExp), data = Arg)
Biling: β = -0.03, SE = 0.03, z(361) = -1.005, p = 0.316
Doubling: β = -0.06, SE = 0.05, z(361) = 1.170, p = 0.243

Pairwise comparisons using single factor ANOVA provided in (12) gives a closer insight in the strength of the individual contrasts. Out of the four relevant contrasts, three (underlined) reach significance – both contrasts in the production of clitics and the contrast with the Neoshtokavian dialects in the omission. Children from the Torlakian zone produced fewer omissions than those from the Oldshtokavian zone, but this difference is not significant.

(12) a. Clitics, Torlakian vs. Neoshtokavian: F(1, 286) = 4.52, p = 0.0345
b. Clitics, Torlakian vs. Oldshtokavian: F(1, 115) = 7.55, p = 0.007
c. Omission, Torlakian vs. Neoshtokavian: F(1, 286) = 4.51, p = 0.0344
d. Omission, Torlakian vs. Oldshtokavian: F(1, 115) = 1.72, p = 0.1918

The strongest contrast, and the main source of the overall effects of dialect groups is the contrast in the rate of production of clitics between Torlakian and Neoshtokavian children.

I have further analyzed each of the strategies for the numbers of participants who never use it for discourse-old referents, as well as for the number of participants who exclusively use this strategy (i.e. who never use any of the remaining two strategies in focus, or any of the strategies that were not analyzed, such as full pronouns or new, different descriptions of old referents). The results are presented in Table 3 and Figure 2, i.e. in Table 4 and Figure 3, respectively.

Table 3 Percentages of participants who never use one strategy by the dialect group

Participants	Oldshtokavian	Neoshtokavian	Torlakian
Never using clitics	53.16%	37.85%	28.21%
Never omitting objects	65.82%	61.35%	76.92%
Never repeating objects	30.26%	48%	33.33%

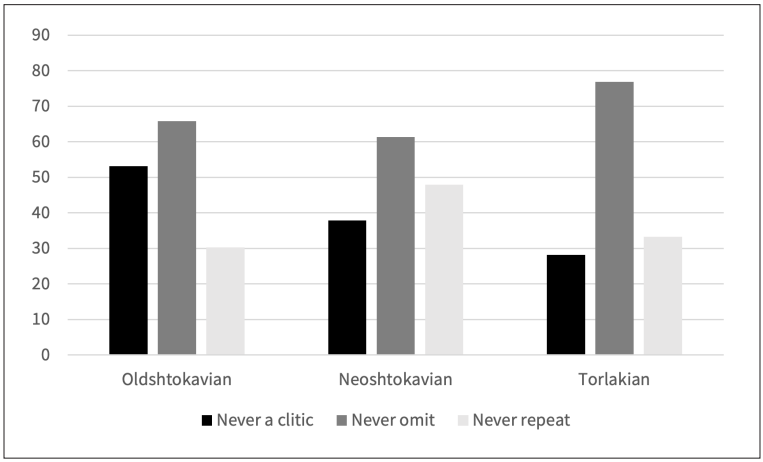

Figure 2 Percentages of participants who never use one strategy by the dialect group

Table 4 Percentages of participants who only use one strategy per dialect group

Participants	Oldshtokavian	Neoshtokavian	Torlakian
Only using clitics	53.16%	37.85%	28.21%
Only omitting objects	65.82%	61.35%	76.92%
Only repeating objects	30.26%	48%	33.33%

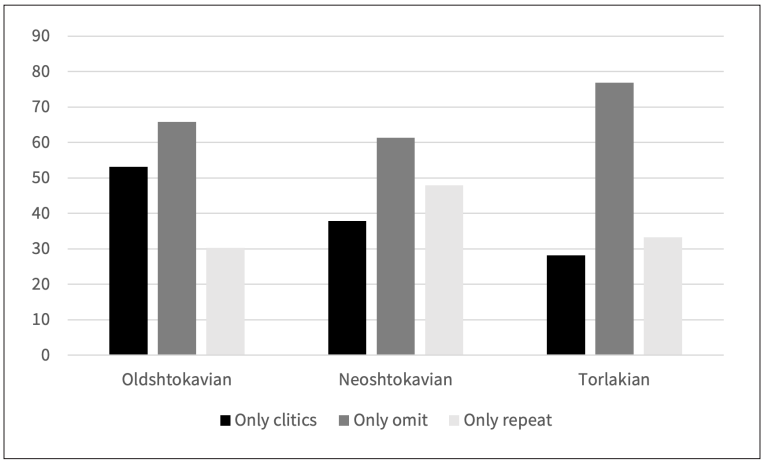

Figure 3 Percentages of participants who only use one strategy per dialect group

These distributions follow the same tendencies as the overall rates of use in Figure 1 above. As the quantities of participants are smaller, fewer of the contrasts reach significance. I therefore do not report the results of the statistical teste, but only include the raw data for illustration.

b. Predictions of H2, that the quantity of omitted subjects predicts the quantity of omitted and clitic objects, was tested by fitting a linear mixed effects model to the shares of omitted subjects as the predicted variable and the shares of omitted and clitic objects as predictors, analogously to (11b) above. The numerical value of the day of the interview was again used as the random variable (using the function *lmer* from the package *lme4* in R, as in (13)). The function and the results are given in (13).

(13) lmer(RatioOmitSubj ~ RatioOmitObj + RatioClitObj + (1|DayExp), data = Arg)
RatioOmitObj: $\beta = 0.19$, SE = 0.05, $z(361) = 3.811$, $p = 0.0002$
RatioClitObj: $\beta = 0.29$, SE = 0.05, $z(361) = 6.204$, $p << 0.0001$

Both clitic objects and their omission are confirmed as good predictors of null subjects – if a preschooler speaking SC has a higher rate of either omitted or clitic objects, they will likely also have a higher rate of omitted subjects.

To further test the correlation between the strategies of expression of objects and subjects, I fitted a model for the repetition as the strategy of expression of objects and subjects. The function and the results are given in (14).

(14) lmer(RatioRepeatSubj ~ RatioRepeatObj + (1|DayExp), data = Arg)
RatioRepeatObj: $\beta = 0.19$, SE = 0.06, $z(361) = 3.361$, $p = 0.0009$

2.5 Discussion

a. Predictions of H1. The results partly confirm the hypothesis. The factor of bilingual acquisition effects a lower, and the factor of clitic doubling a higher rate of production of object clitics, as confirmed in (11), but no effect of these factors on omission can be confirmed with significant probabilities in the overall picture. Pairwise contrasts lead to the same conclusions, as confirmed in (12a, b), while additionally showing that the factor of clitic doubling in combination with the factor of bilingual acquisition also effects a lower rate of omission, but alone does not reach significance in this contrast, as shown by (12c, d).

The exact same tendencies are also observed when the quantities of participants are considered who never use a particular strategy

of object expression, as well as for those who only use one of the strategies.

Reasons for the weaker effects in omission probably have to do with the fact that omission is not always in competition with clitics, as there are contexts in which it is the best strategy for the expression of direct objects (recall the discussion of 4b)). Moreover, the factor of dialects codes dialect zones, but children in a dialect zone are not all necessarily dominant speakers of the respective dialect. Due to migration and parent's education policies, children in the zones of dialects different from the standard often speak the standard in the family, and even in the Neoshtokavian zone, due to migration, some families speak a dialect from another group. Furthermore, some of the towns where the data have been gathered are in the border zones, where another dialect group is represented to a higher or lower extent. The imperfect match between dialect zones and the actual dialects of the participants are a probable general weakening aspect for all the measured contrasts.

b. Predictions of H3. The results of the experiment confirm that the participants display general preferences for particular strategies of expression of discourse-old structural arguments, applying to both objects and subjects. Ignoring other, less frequent strategies, the mapping is two to three, i.e. omission and repetition as strategies for the expression of subjects map to clitics, omission and repetition as strategies for the expression of objects. Children who have a preference for repetition in the expression of discourse-old objects also prefer repetition when realizing discourse-old subjects. Both children who prefer omission and those who prefer clitics for the expression of direct object prefer omission as the strategy of expression of discourse-old subjects. This is compatible with the view that children represent object omission as a *pro*, i.e. as an uninflected clitic syncretic between the nominative and the accusative case. Maturation of grammar in this domain involves dispensing with this syncretism (i.e. realizing the ending in object clitics, thus making them overt) and representing object omission in the way that licensed its realization in the narrow set of contexts it is limited to – plausibly as a variable (Huang 1984).

3 Conclusion

On the material of children's picture-based storytelling, I tested two hypotheses about children's expression of direct objects in SC: that children who produce object omission instead of object clitics misanalyse object omission as the *pro*, assuming nominative-accusative syncretism, and that the availability of clitic doubling in the dominant variety facilitates the acquisition of clitics in the

standard variety too, in children undergoing bilingual acquisition between the standard and a dialect. The former hypothesis was tested via its prediction that both children who prefer to omit discourse-old direct object and those who prefer to realize them as clitics will also prefer to omit discourse-old subjects, and that children who repeat discourse-old objects will also prefer to repeat discourse-old subjects. The latter was tested via its prediction that children acquiring the standard variety bilingually with a Torlakian dialect, where clitics are more grammaticalized and more frequent, will also use them in the standard, more than both children acquiring the standard alone, and those acquiring it bilingually with a dialect without clitic doubling. The results are congruent with both predictions, thus confirming both hypotheses.

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