

Serbian Distributive Children

Issue. This paper discusses ongoing research on scope (in)dependent readings of sentences with cardinals in subject position and cardinals and universal quantifiers in object position in Serbian speaking adults and children. Our experiment is based on Musolino [3]. We conclude that Serbian 3-6 year-olds prefer distributive to collective readings of both cardinals and quantifiers (generalization (i) below). This claim is consistent with two recent acquisition studies in Russian [1] and Brazilian Portuguese [2] who also conclude that children have a strong preference for distributive interpretations.

Experimental conditions. A comprehension study (Truth-Value Judgment Task, Crain & Thornton, 1998) was run with 13 children and 20 adults, native speakers of Serbian. The participants were asked to give judgments of truth and falsity for two test sentences under four experimental conditions:

Scope-dependent (distributive) readings

Condition A.a - Subject Wide Scope Condition (SU): There are three boys in the picture. Every boy is holding two balloons.

Condition A.b - Object Wide Scope Condition (OBJ): There are two groups of three boys. In each group, all of the three boys are holding the same balloon.

Scope-independent readings

Condition B.a - Collective Condition (COLL): There are three boys who are holding together two balloons.

Condition B.b - Cumulative Condition (CU): There are three boys. One is holding one balloon. Two others are holding together another balloon.

Test sentence 1: Tri dečaka drže dva balona.
 Cardinal Gen.Sg 3.p.Pl PRES cardinal Gen.Sg
 three boy hold two balloon
 Three boys are holding two balloons.

Test sentence 2: Tri dečaka drže svaki balon.
 Cardinal Gen.Sg 3.p.Pl PRES UQ Acc. Sg
 three boy hold each balloon
 Three boys are holding each balloon.

Results.

Yes responses (%)	Adults <i>Test sentence 1</i> (%)	Children <i>Test sentence 2</i> (%)	Adults <i>Test sentence 1</i> (%)	Children <i>Test sentence 2</i> (%)
SU	15	80.77	17.5	73.8
OBJ	7.5	23.08	32.5	53.85
COLL	92.5	46.15	72.5	50
CU	82.5	30.77	12.5	46.15

Generalization. The results provide evidence for two important generalizations:
(i) children prefer distributive to collective readings, even on the inverse scope construal (A.b) while Serbian adults, unlike English adults, do not accept distributive conditions (A.a and A.b)
(ii) children, unlike adults, do poorly under the collective condition (B.a).

Discussion. (I) There is a mandatory distributive operator *po* in Serbian that yields subject wide scope reading if operating on an object or object wide scope if operating on a subject. Adults, unlike children, show a strong preference for using *po* under the distributive conditions. This property could explain the difference between English and Serbian adults' data for distributive conditions.

Why do children do not need this operator to access distributive readings?

(II) Serbian children, just like Russian and Brazilian Portuguese children, show a preference for distributive readings. We suggest that the relevant property that these three languages have in common is that they allow bare singular count nouns, unlike English. We suggest that in determinerless languages children show a preference of construing the cardinal as a determiner quantifier and not as an adjective and thus prefer distributive over collective readings.

(III) Moreover, the different distribution of distributive vs. collective interpretations, in Serbian and English, can also be correlated with the morphosyntax of agreement in number phrases. Singular agreement of the nominal restriction with the number head in Serbian, which is not allowed in English, could yield distributive readings of NumPs. On the contrary, plural agreement of the noun with the cumulative cardinal, just like in English, would give rise to collective readings.

We can find the parallel of this singular/plural agreement – interpretation dependency in the distinction in both Serbian and English universal quantifier pair *svaki/each* vs. *svi/all*.

We argued that Serbian, Russian and Brazilian Portuguese children are different from English children in preferring distributive over collective readings. We conclude however by suggesting, on the basis of remarks by Musolino [3], that English children might not be different. The interesting question then is why children, in general, prefer distributive to collective interpretations.

Selected references: [1] Kuznetsova et al. 2007. The Acquisition of Universal Quantifiers in Russian. Proceedings of the 2nd Conference on Generative Approaches to Language Acquisition North America [2] Lopes, R. 2006. Bare Nouns and DP Number Agreement in the Acquisition of Brazilian Portuguese. Selected Proceedings of the 9th Hispanic Linguistics Symposium, Cascadilla, MA [3] Musolino, J. 2008. The logical syntax of number words: Theory, acquisition and processing. *Cognition* 111(1): 24-45.