

# Acquisition of Ditransitive Structures in Croatian Child Language

## A Corpus Study

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### INTRODUCTION

- This study investigates how Croatian children order the objects in their first **ditransitive structures**.
- **Animacy** and **accessibility** have been shown to influence word order: animate→inanimate and given→new.
  - The most frequent structure is 'daj mi +DO' (give-IMP me-DAT.cl + DO): the dative/IO clitic (CL) followed by DO
  - We establish that this structure is productive, and is not acquired as a chunk.
  - We also compare the distribution of the children's ditransitive structures compared to their caregivers' and check whether there is an effect of animacy and accessibility on object order.

### THE USAGE OF DITRANSITIVE STRUCTURES

Form	Adult IO-DO	Adult DO-IO	Child IO-DO	Child DO-IO
NP-NP	55	17	0	2
NP-PR	3	0	0	1
NP-CL	0	27	0	9
PR-NP	15	2	24	0
PR-PR	0	3	2	1
PR-CL	0	8	0	5
CL-NP	144	1	170	0
CL-PR	15	0	38	0
CL-CL	12	n/a	4	n/a
	244	58	238	18
Total	302		256	

Both adults and children predominantly use IO-DO, the most frequent structure of this type is CL-NP (144 – 170). This skews the distribution of the data in the direction of IO-DO. The occurrences with IO realised as CL cannot be used to determine the relative impact of animacy and accessibility because clitics in Croatian are fixed in the second position (Schutze 1994), so this object order is motivated by syntactic rather than pragmatic factors.

Children have less variety in their utterances and use CL-NP significantly more than adults ( $p\text{-value}= 0.0056$ ). By checking the overall proportion of the two object orders, we can see that children use significantly less DO-IOs ( $p\text{-value}: 5.036e^{-05}$ ) than the adults.

In the data we are analysing here, avoiding the clitic, there is no preference for the IO-DO.

### THE CASE OF 'DAJ MI'

'Daj mi +DO' represents the vast majority of children's productions at this age (IO-DO CL-NP). This construction is further investigated because we need to establish whether 'daj mi' is used as a chunk or whether it is productive. Object clitics are problematic to acquire in some languages (French, Italian, Catalan) but not in others (Spanish, Greek) (Babyonyshev and Marin 2006). Therefore, we have checked if the two elements 'daj' and 'mi' are productive by looking into the combinations in which they are attested.

#### IS THERE A STAGE WITH 'DAJ' AND 'DAJ MI'?

**Yes** (examples of 'daj' after the child has already produced 'daj mi'):

1a. **VJE:** *a daj meni to.*  
Age: 2;4.14 give-IMP me-PR.DAT that

1b. **ANT:** *daj ovoga meni.*  
Age: 2;8.1 give-IMP this-ACC me-PR.DAT

#### DO 'DAJ' AND 'MI' ARISE IN OTHER COMBINATIONS?

**Yes.** We have searched for occurrences of 'daj' (2) and other clitics and for 'mi' (3):

2a. **VJE:** *daj mu kapu.*  
Age: 2;1.5 give-IMP him-CL.DAT hat-ACC

2b. **MAR:** *i sad daj joj meko*  
Age: 2;8.8 and now give-IMP her-CL.DAT milk-DAT

3. **VJE:** *(h)oćeš mi dati?*  
Age: 1;9.24 will me-cl.DAT give-INF

'Daj mi' is a productive structure; it is the first and most frequent ditransitive construction that children produce.

### THE INFLUENCE OF ANIMACY AND ACCESSIBILITY ON OBJECT ORDER

A multitude of factors influence word order, here we have chosen to look into only two: animacy and accessibility (given, present, and salient). The target order is animate<inanimate and given<new (de Marneffe et al. 2012).

### THE DISTRIBUTION OF ANIMACY AND ACCESSIBILITY IN THE CHILD DATA

AN	Adult		Child		ACC	Adult		Child	
	IO-DO	DO-IO	IO-DO	DO-IO		IO-DO	DO-IO	IO-DO	DO-IO
Both	1	0	0	0	Both	67	29	14	9
IO	71	30	26	13	IO	5	0	12	4
					DO	0	1	/	/

We have excluded all categories that include clitics (except NP-CL) because of the fixed position of CL. The IO is closely linked to AN, and most of the objects are ACC. The distribution of the object orders across conditions is similar in both types of speaker, there is no statistical significance in any condition. The DO-IOs in IO AN are influenced by other factors in both adults and children that place the DO in first position, discourse topic is relevant. We can see that children produce given→new structures but also new→given ones. The adult data does not have these examples. This could be an indication that for children givenness is not in place yet or that they fail to take the listener's point of view into account. However there is too little data to make any conclusions.

### CONCLUSIONS

The data suggests that children are quite sensitive to the frequency in the input, as their preferences mirror the frequencies of the adult data. Once the IO-CL structures are taken out, the predominance of IO-DO is decreased down to 26 vs.14. So, there are two factors responsible for the predominance of IO-DO: animacy of the IO and preference to express it as a CL. The distribution of the two factors does not allow us to make many conclusions because the language we see is quite uniform: all IOs are animate, and mostly all objects are accessible. Both children and adults use DO-IO to the same proportion in IO AN. Children use both given before new and new before given. More data is needed but this study served as a good preliminary study for experimental design.