

# The Effect of Givenness on Object Order in Croatian Monolingual Children

## A ditransitive elicitation task

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Check the QR-code to access all the data from the task

### / BACKGROUND

This study investigates how givenness influences the ordering of the direct object (DO) and the indirect object (IO) in ditransitive structures in Croatian pre-schoolers. As a free word order language, Croatian can simply rearrange the DO and IO without recurring to a different structure:

1. Ivan daje Mariji jabuku/ jabuku Mariji  
 john-NOM gives mary-DAT apple-ACC / apple-ACC mary-DAT  
 'John is giving Mary an apple.' / John is giving an apple to Mary.'

The **given>new** principle entails that if all other factors are equal speakers will prefer to place the information that is familiar to the listener first, and place the new information later (Birner & Ward, 2009). Ditransitive structures can accommodate the given>new principle by having the given object precede the new one.

**Animacy** is usually not balanced in ditransitives: the IO is animate and the DO is not; therefore the task has a balanced and unbalanced animacy condition. Animate elements precede inanimate elements (Van Nice & Dietrich, 2003).

### / STUDIES ON GIVENNESS IN CHILD LANGUAGE

Some studies (Snyder 2003, Anderssen et al, 2015, Stephens 2015) find a **given>new preference**. Nevertheless, the to-dative (DO-IO) is better accepted. Other studies (Mykhaylyk et al. 2013, Höhle et al.) find that children have a **preference for IO-DO** and tend not to deviate from it. Corpus data of Croatian child language found an IO-DO preference (Velnic 2016).

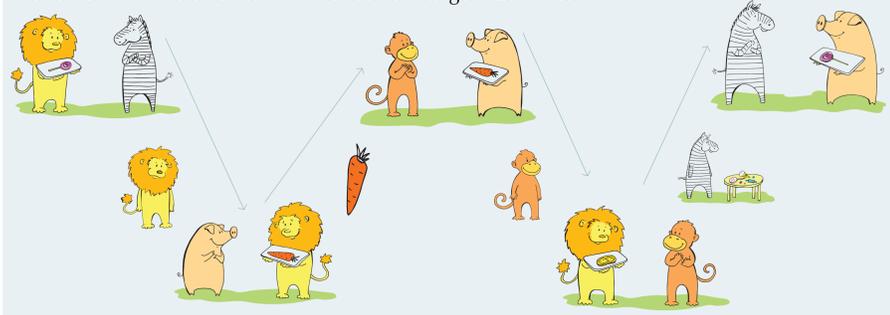
### / STUDIES ON ANIMACY IN CHILD LANGUAGE

These studies have more unified results: Young children acquire animacy very early (De Merneffe et al. 2012) and are attentive to it (Snyder 2003); this is due to animate entities being conceptually highly accessible and thus retrieved more easily (Branigan 2008).

### / METHODOLOGY

**Participants:** A total of 58 monolingual Croatian children between the ages of 3;8-5;2 (mean age=4;4, 26 males) participated in the experiment. The adult controls consisted in 36 participants aged 19-28 (mean=21, 8 males).

**Task:** the participants were asked to describe images depicting ditransitive actions, the experimenter could not see the images as they were placed on a board that acted as a barrier. The task consisted on three sets of images (2 **IO-animate** & 1 **both-animate**) that had 4 givenness conditions: **No-G**, **DO-G**, **IO-G**, **All-G**. After each action image, there was an image of the referents that would be given in the next condition. This strengthened the givenness condition and acted as a buffer between the target utterances.



### / PREDICTIONS

1. Since we have found in Croatian corpus data a predominance of IO-DO, Children will most likely prefer IO-DO, and this word order will be produced more frequently; nevertheless, the effect on givenness on object order should be observed when givenness and animacy have contrastive effects: IO-An DO-G
2. There will be a clearer effect when givenness is the only factor guiding word order (Both animate)
3. Animacy will be a more relevant factor in child data because adults have internalized the given>new principle and should thus pay more attention to that than to the animacy of the referents

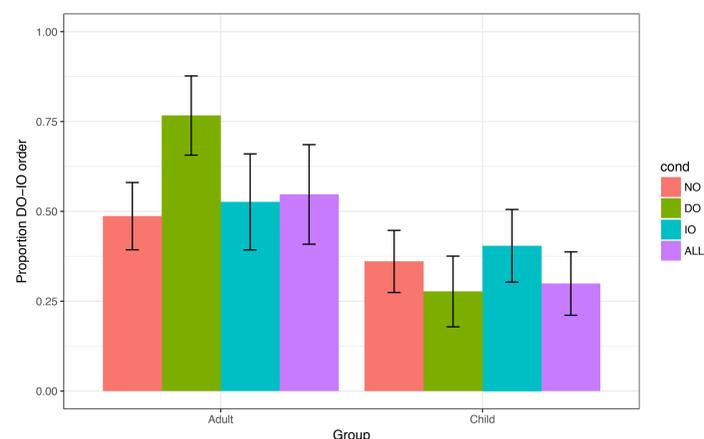
### / CONCLUSIONS

There is an indication of givenness being marked both in children and adults, as the DO-G condition differs from the baseline conditions. More research is needed in order to establish whether the given DO is more salient than the given IO or if the contrast of animate IO and given DO makes this condition more prone to being marked with word order. An important finding is that children and adult have a different preferred word order. This different preference guides the distribution of the responses presented in the results section: children prefer IO-DO, so when the IO is animate this is the dominant word order, when animacy is balanced they go to chance level and use either word order; adults prefer DO-IO, so we can see an equal distribution of the two word orders when the IO is animate, but when both are animate their DO-IO productions go to ceiling level.

### / RESULTS

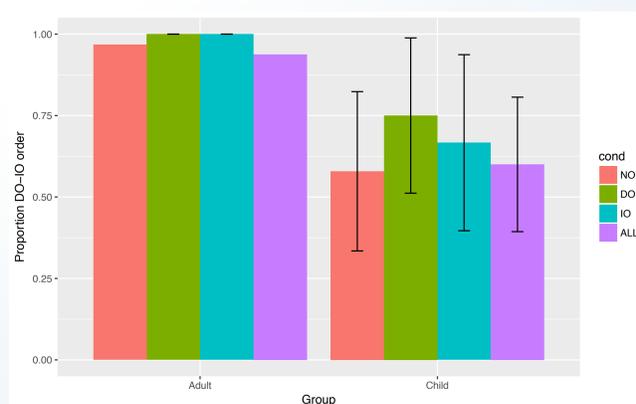
We conducted linear mixed effect models comparing the target conditions (DO-G and IO-G) to the baseline conditions (No-G and All-G)

#### / IO-ANIMATE



The adults start by choosing either word order (IO-DO 51%, DO-IO 49%) in the first condition (No-G), but then there is a significant increase (p-value=0.004) when the DO is given. The IO-G condition is not different from the baseline conditions. The children prefer the IO-DO order across the task (66%), but the DO-G condition has a significantly lower proportion of DO-IO (p-value=0.02) when compared to the rest of the task, this is an indication of new>given order. Again, the IO-G does not differ from the baseline conditions.

#### / BOTH-ANIMATE



The adults produce only DO-IO, no trace of any givenness effect. The increase of DO-IO is significant when compared to IO-An (p-value=2.81e-06). The children produce significantly more DO-IO when compared to the IO-animate condition (p-value=8.96e-08). The DO-G condition is now the condition with most DO-IO productions, but the statistically there is no difference in any of the conditions in the task.

### / DISCUSSION

The task does not find a clear givenness effect on object order as predicted but there might be different reasons for each participant group: children might not have givenness in place and we thus see a different preference for the ordering of the given object in the DO-G condition across the two animacy conditions; with regard to adults, the task might not have been suitable because they possibly did not believe that the experimenter has not seen the images, and thus treated all conditions as All-G.

One prediction was that the IO-An DO-G condition would provide insight on the givenness preference. The mentioned condition has a special status in both children and adults by significantly differing from the baseline and the IO-G condition, which never differs from the baseline. This entails that the speakers pay attention to givenness, more when it is in contrast to animacy.

Animacy has a strong influence on object order for both types of speaker but children do not seem to be more sensitive to it than adults. The reason for the different behaviour in the two animacy conditions is that the two types of speakers have a different word order preference: children prefer IO-DO, while adults prefer DO-IO. These preferences were already found for child data in a Croatian corpus study (Velnic 2016) and for the adult data in an acceptability task for different conditions of givenness and animacy (Velnic 2017).

## References

- Anderssen, M., Rodina, Y., Mykhaylyk, R., & Fikkert, P. (2014). The acquisition of the dative alternation in Norwegian. *Language Acquisition*, 21(1), 72-102.
- Birner, B. J., & Ward, G. (2009). Information structure and syntactic structure. *Language and Linguistics Compass*, 3(4), 1167-1187.
- Branigan, H. P., Pickering, M. J., & Tanaka, M. (2008). Contributions of animacy to grammatical function assignment and word order during production. *Lingua*, 118(2), 172-189.
- de Marneffe, M.-C., Grimm, Scott, Arnon, Inbal, Kirby, Susannah, and Bresnan, Joan (2012). A statistical model of the grammatical choices in child production dative sentences. *Language and Cognitive Processes*, 27(1), 86.
- Höhle, B., Hörnig, R., Weskott, T., Knauf, S., & Krüger, A. (2014). Effects of focus and definiteness on children's word order: evidence from German five-year-olds' reproductions of double object constructions. *Journal of Child Language*, 41(4), 780-810. doi:10.1017/S0305000913000196
- Mykhaylyk, R., Rodina, Y., & Anderssen, M. (2013). Ditransitive constructions in Russian and Ukrainian: Effect of givenness on word order. *Lingua*, 137, 271-289.
- Snyder, K. (2003). *The relationship between \*form and \*function in ditransitive constructions*. (PhD), University of Pennsylvania. (3095944)
- Stephens, N. (2015). Dative constructions and givenness in the speech of four-year-olds. *Linguistics*, 53(3), 405-442. doi:10.1515/ling-2015-0008
- Van Nice, K. Y., & Dietrich, R. (2003). Task sensitivity of animacy effects: Evidence from German picture descriptions. *Linguistics*, 41(5; ISSU 387), 825-850.
- Velnić, M. (submitted-a). *Acquisition of Ditransitive Structures in Croatian Child Language*. FDSL Workshop: L1 Acquisition of syntax in the Slavic languages. Short paper. Potsdam, Germany.
- Velnić, M. (submitted-b). The influence of animacy, givenness, and focus on object order in Croatian ditransitives.