

Focus interpretation in typical and atypical acquisition of Hungarian

The phenomenon of focus is a peculiar property of Hungarian syntax that is partly governed by semantic factors. Regarding the form, a focussed constituent appears in the immediate preverbal position of a phrase along with a distinctive stress pattern. The verb modifiers that usually precede verbs in neutral sentences move after the verb when a focussed element is present. There are certain kinds of elements that are obligatorily focussed, focussable or non-focussable. Question words and negated phrases are obligatorily focussed, while positively quantified adverbs or phrases with the inclusive particle 'is' can not be focussed. Adjuncts and arguments are focusable by default, that is, any sentence part can be selected for being focussed. In this case, the focussed phrase functions as a semantic operator representing a special exclusionary meaning: the sentence predicate will only be true of the focussed element (from a discourse-determined set of candidates). This may be made explicit with the exclusionary 'csak' particle but the sentence meaning is unambiguous for adult speakers anyway.

There have been only a few investigations on the acquisition of focus in Hungarian child language. The focus-related word order of verbs and modifiers is usually acquired during the third year of life, with some typical production errors (Babarczy 2006). After the age of 3 children usually use predicate negations and imperatives with adult-like post-verbal modifier word order. However, sentences with focus as an exclusionary semantic operator only begin to emerge in child language at the end of the 3 year of life and this period still may be far from being productive with these kinds of structures. Our investigations address the issue of interpreting sentences with focussed arguments in typical language acquisition and in language disorders. The main questions of the research were the following: (i) do children show evidence of the exclusionary interpretation of focussed arguments, (ii) are there differences between the importance of surface features that trigger that interpretation and (iii) do children with language disorder show limitations or deviant profiles in the comprehension of focus?

We tested two groups of children; all of them were native, monolingual speakers of Hungarian. The first group consisted of 28 children with language impairment (LD) in two age groups between the ages of 4;10 - 7;2 and 9;6 - 13;4 years. The main selection criterion for LD was significantly low performance (-1.5 SD or lower than age-norm) in any two of four independent language measures. All children had an IQ score higher than 85 measured by the Raven Coloured Progressive Matrices, and they showed no evidence of hearing loss, frank neurological impairment, social problems or psychiatric syndromes. The second group of children consisted of 28 typically developing (TD) children in two age groups between the ages of 3;6 - 6;9 and 7;2 - 10;8 years. The two groups were individually matched on receptive vocabulary level (PPVT raw score). We applied a computerized sentence-picture verification task with randomly presented items and digitized sentences. Children were asked to judge whether the sentence they heard matched the picture presented simultaneously by pushing buttons on a keyboard. We used 6 sentence types with 6 different items in each and 4 picture types. The sentence types were the following: (a) neutral SVO, (b) neutral SOV, (c) neutral SVO with object stress, (d) SOV with object focus, (e) SVO with subject focus and verbal prefix and (f) SOV with object focus and verbal prefix. The picture types were the following: (1) two actors performing an action on different objects, (2) one actor performing an action on two objects, (3) one actor performing an action with one object and (4) two actors performing an action on the same object. We constructed 24 variables of the 6 sentence types and 4 picture types for the acceptance rate of the 24 different types of picture-sentence pairs, and we analysed paired-sample t-tests in each of the four groups to judge the differences between them.

Our hypotheses were that (i) children accept neutral SVO and SOV sentences for all kinds of pictures except when there is a referential mismatch, i.e. when the object of the sentence is 'a tree' and there is a flower on the picture, (ii) children reject pictures with two actors performing the same action for subject focus sentences and (iii) reject pictures with somebody performing an action with two objects for object focus sentences. We hypothesized that (iv) the rejection ratio for (iii) depends on the presence of focus features, i. e. pre-verbal position, stress and prefix movement. We expected an (v) age and a (vi) group effect with the younger and the atypical groups showing less sensitivity to focus interpretation than older and typically developing children.

The acceptance of neutral sentences were almost as expected, typically developing children accepted neutral SVO and SOV sentences for all kinds of pictures except when there was a referential mismatch. The pattern was not so stable for the children with language disorder. The younger children with LD showed a similar pattern as the TD although all the differences were smaller. The older children with LD showed a quite deviant profile for neutral sentences, they accepted pictures with two actors or two objects to a much less degree than pictures with clearly only one person performing an action on one object. This pattern might be explained in terms of uncertainty with distinguishing between structures. These children might have recognized that some sentences had exclusionary meaning but could not match them exclusively to the relevant structural features of focus.

For the focus sentences, the results showed a remarkable sensitivity for subject focus in older children but not in younger ones in both groups. Older children in both groups rejected pictures with two actors performing the same action for subject focus sentences to the same degree as they rejected pictures with referential mismatch in the object. However, sensitivity for object focus was not manifest at all in any of the groups or age ranges: children accepted pictures with an actor performing an action with two objects for object sentences to a high degree. Because of the lack of sensitivity to object focus we could not compare the relative importance of surface focus features either. There are two potential explanations of this pattern. First, sentence objects are the most frequent so-called incorporated arguments appearing in the pre-verbal position. This frequent word order pattern might bias listeners for a neutral interpretation of verb-preceding objects even when distinctive stress is present. The other explanation is methodological: it is unnatural to simultaneously perform an action with two objects and it is difficult to represent such actions on pictures; it is possible that children did not notice that the actor is performing the action on two objects and this lead to the neutral interpretation.

To summarize, our results provide evidence that the exclusionary interpretation of focus sentences is not fully developed in children between 4 and 7, although they might perform better in everyday conversational contexts. School-age children with language disorder are still not able to consistently make fine-grained semantic distinctions that are governed by surface structural factors of focus.

References

Babarczy, A. (2006) Negation and word order in Hungarian child language. *Lingua* 116, 377-392.