

Semantics vs. Syntax in Verb Structure Acquisition

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Abstract

The paper deals with the problem of verb argument acquisition and verb realization in the speech of children and adults, which is one of the most discussed, but still vaguely understood problems in Russian grammar. In their reports both children and adults used about 800 verbs, that were classified according to their semantics and their argument structure. The paper discusses the results of the analysis of adults' and children's usage in all different types of verb argument structures. It proves that both groups tend to fulfill all possible arguments of verbs of speech. However, it is only subject position that is usually fulfilled in two-participant verbs of motion while the second argument position is often omitted. It also shows that semantics are acquired earlier than syntactic rules, even in relation to simple sentence structure, and that children acquire syntactic structure by analogy with other verbs of the same semantics.

1 Introduction

The aim of the paper is to discuss some problems relating to the acquisition of verb argument structure and their representation in children's narratives in comparison with adults in connection with verb semantic classification. The history of verb argument studies and their acquisition is very long, but it should be noticed that it is mostly in connection with the earliest periods of language acquisition, when children are not expected to produce any long monologues. At the same time we should not forget that narrative as a coherent account of some sequence of events provides usage of special sentence structures and the omission of different arguments.

It should also be mentioned that the study of Russian language acquisition has unfortunately not paid sufficient attention to the problem, mostly discussing different morphological peculiarities of Russian language acquisition.

Nevertheless, it has been shown that children acquire 2-argument verbs with subject and object by the age of 2 (Özçalışkan, Goldin-Meadow 2005; Lidz, Gleitman 2004) and children tend to omit subjects and objects, especially in pro-drop languages such as Italian or Russian (Schmitz, Müller 2003; Tseitlin 2000). The acquisition of verb-argument structures depends on their semantics and are acquired generally by analogy with other verbs of the same semantics (motion, speech, perception, etc.) (Gropen, Pinker, Hollander & Goldberg 1991; Tseitlin 2009).

2 Material

The paper represents some conclusions which are based on the data of two similar experiments – one with adults as the subjects, and the other – with children. A 4-minute cartoon was chosen to elicit verbal reports of the Ss. The adult experiment was run in three sessions with 2 month intervals in order to give subjects enough time to forget the plot of this cartoon and their own narratives. The experiment with children was run in two sessions with 2 month intervals. The same group of Ss. participated in all experimental sessions: 20 students, aged 19-25, and 17 children, aged 7-8. 94 original narratives have been recorded, and the total duration of all the records is about 6,5 hours.

In their narratives, the subjects used 788 verbs in total, while children used only 245. All these verbs were classified according to their argument characteristics. A 1- argument verb may have 3 slots, namely the verb itself, its only actant and a *circonstant*¹, a 2- argument verb may have 4 slots: the same plus the second actant; a 3-argument verb – 5: 3 actants, the verb and a *circonstant*².

If one of the actant slots is left empty, the utterance is elliptic. In the research two types of

¹ In the analysis we count one slot for *circonstants* regardless of their number.

² In the analysis first actant is indicated as S in order to distinguish it from other actant and because it usually coincides with syntactic subject.

elliptic structures are distinguished. *Ellipsis* is an incomplete syntactic structure in which it is possible to restore the deleted items, thus recovering the original meaning and filling the gap in the syntactic structure. There are rather semantic or pragmatic reasons for omitting this component of the structure (for example: *and X begins to destroy them / and X throws at / now X is throwing a ball*, where *X* stands for omitted subject).

The other type is a *reduction* where the restoration of the gap, relying on the semantic and syntactic context, is impossible or may lead to a different meaning. This is because there are restrictions on a syntactic manifestation of a semantic argument, i.e. an element is omitted for purely syntactic reasons and is determined by grammar (for example, infinitives or impersonal sentences in Russian).

3 Discussion

The paper discusses different semantic groups of verbs as examples of coordination between semantic and syntactic argument structures. The first group represents the verbs of speech. The verbs of this group were not frequent either in adults' or in children's texts. Among all 55 verbs of speech 52% of the total were 3-argument verbs, whilst 2-argument verbs constituted 40% of the total. As for their syntactic structures, the 3-argument verbs are of two types: nominative, prepositional, prepositional instrumental (*besedovat* 'talk to smbd about smth') and nominative, accusative, different prepositional cases (*obsuzhdat* 'discuss smth with smbd').

The distribution of these argument structures in children's and adults' texts is presented in the diagram (Figure 1):

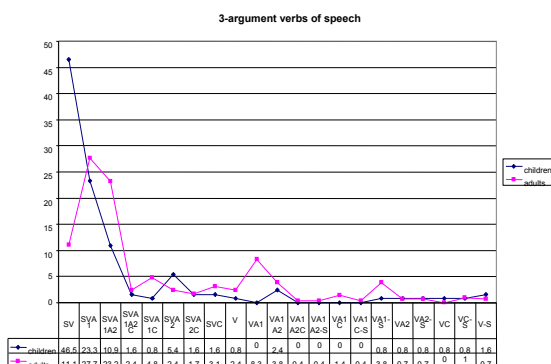


Figure 1. Distribution of argument structures in verbs of speech³.

³ Unfortunately, the article size does not allow to elaborate every argument structure here, see Eysmont 2008.

The data show, that both children and adults have used almost all possible structures, but children generally tended to fill the first position of the subject – the subject position is filled in 91,5% of all utterances, while adults filled it in only 76,5%. As for optional valences, children tended to omit them as well: more than 80% of all utterances were such structures as SV, SVA₁ and SVA_{1A2}, while the same structures in adults' texts were only about 60%. So children, even using 3-argument verbs in their narratives tend to fill only 1 or two possible arguments. If we look at their syntactic representations, we'll see that children fill the second argument position with direct speech, whilst adults tend to reformulate it in indirect clauses or its nominalization. So, we may conclude that children have already acquired the semantic structure of a 3-argument verb and tend to fill most semantic valences of a speech event, but still drop out the syntactic ones.

The other group to be discussed in the paper is the group of verbs of motion. This group was the most frequent, and all of these verbs are 2-argument verbs, where second position refers to either destination or start point of the motion, and is to be filled with different prepositional cases or an adverb.

The distribution of argument structures in children's and adults' texts is presented in the following diagram (Figure 2):

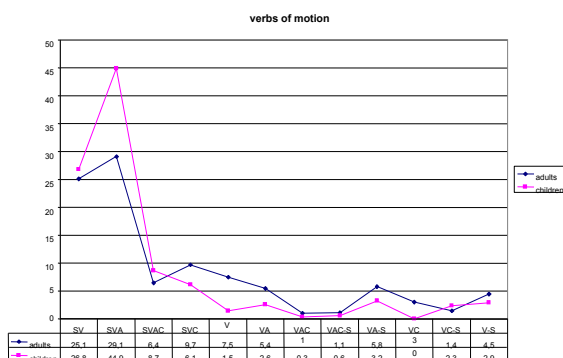


Figure 2. Distribution of argument structures in verbs of motion.

The diagram shows, that all possible structures have been used by both children and adults in their narratives and proves, that children have already acquired verbs of that kind and feel free using them in their speech. But at the same time, you may notice that the most frequent structure in children's narratives was the structure with both positions – subject and object – filled, while

in the verbs of speech this structure followed the simpler structure with only one – subject position filled. It also demonstrates that children are free to use 2-argument verbs as easy as adults use 3-argument verbs.

So high number of verbs of motion in children's narratives may also be explained as a result of their semantic and syntactic structure: they are 2-argument verbs, and children acquire them by the age of 2 (Özçalışkan, Goldin-Meadow 2005; Lidz, Gleitman 2004). If so, we may suggest that although children are obvious to acquire syntactic structure on the analogy of other verbs of the same semantics, in some period of language development it begins to work in an opposite way: children tend to use in their speech verbs of the same syntactic structure as the verbs acquired before. In other words, having acquired a new syntactic structure, children try to apply it as often as it is possible.

As for syntactic structures, this analysis proves that there is no distinction in use between different 2-argument verbs either they are prototypical or non-prototypical, and their usage does not depend on their syntactic structures. I should also mention that there was no single mistake within the noun cases in children's narratives, although the previous studies by Tseitlin showed quite a big percentage of cases misuse in schoolchildren's narratives (2009).

4 Conclusion

The analysis of adults' narratives proved that adults use all possible types of argument structure – both semantic and syntactic, but tend to omit 'everything that is possible to be omitted', and use elliptic utterances as often as reduced ones. At the same time children tend to use complete semantic argument structures and do not omit subjects for elliptical reasons, but use quite a lot of reduced structures. Children fill most of subject and first object semantic positions independently of the number of verb arguments, but in 3-argument verbs they do it in a different way, and avoid using syntactically required structures (cf., direct vs. indirect speech). Verbs of motion are the most frequent, whereas verbs of speech are much more infrequently observed. It should be mentioned, that this situation cannot be interpreted as verbs of motion referring to concrete actions, which are known to be more important for little children. This is because the group which follows verbs of motion is that of verbs of perception, which are

probably even more abstract than verbs of speech.

The analysis has also proved that semantics are acquired earlier than syntactic rules, even in relation to simple sentence structure. This result seems to be quite understandable and predictable, as the semantics of verbs and especially their argument structures represent the structures of real events and their perception does not require any specific language skills.

Children tend to fill subject position. This result was quite unexpected for two reasons. The first is the fact that Russian children start speaking by producing mostly elliptic structures, which they may be considered to have already acquired by the age of 7. The second reason is that Russian is a pro-drop language, and adults generally prove it in their narratives. So, these results probably demonstrate a kind of a non-pro-drop period in acquisition which has not been studied before.

The last point is that children, as have been shown acquire syntactic structure by the analogy of other verbs with the same semantics. Having studied this new syntactic structure they are able to use it widely in their speech with all the appropriate verbs.

References

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