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## Infants acquire words before concepts: A case study

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### Abstract

The purpose of the paper is to prove that for a child the system of abstract concepts grows from the “material work” with the language. Using the case study method to a particular child we prove that little children can use rather complicated abstract words without knowing the concepts of these words. Children may use such words in proper grammar forms and correct collocations but they can’t explain the meaning of the words or give wrong explanation. It makes us think that in language acquisition process the language knowledge system is being developed earlier than the conceptual system of words meaning but we must understand what language knowledge consists of in this case and what it actually is. Implications for future research include further study of language knowledge system as having its own value independently from concept system of knowledge.

Keywords: language acquisition, infant speech, language knowledge system, case study.

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## 1. Introduction

Language acquisition problem has many aspects for discussion. Russian psycholinguistics follows the tradition of “speech activity” approach originated in L. S. Vygotsky (Vygotsky, 1999) and A. A. Leontyev’s (Leontyev, 1969) works in the 1930s. It pays attention to inner mental mechanisms of speech development. In American linguistics N. Chomsky and his followers’ ideas of the inborn language faculty (Hauser, Chomsky, and Fitch, 2002) are criticized by the supporters of the usage-based theory developed in the works by M. Tomasello (Tomasello, 2003). Experts discussed how children acquire words and use them in their utterances but the question if they know the concepts of the words they use is left without consideration because it is taken as obvious truth that a child understands the meaning of the word if he/she uses it in speech.

It makes us think that in language acquisition process the language knowledge system is being developed earlier than the conceptual system of words meaning but we must understand what language knowledge consists of and what it actually is. The purpose of the paper is to present the results of a case study of infant speech in order to prove that for a child the concept system grows from the “material work” with the language. Word concepts are not given to infants beforehand, they are developed after regular repetition of “material” words in different collocations.

## 2. Research method

Most investigations into language acquisition problem and infant speech development are done with the help of experimental methods. But for second language acquisition problem many use the method of case study. P. A. Duff suggests that case study research has been very important “particularly in studies of language teaching, learning, and use”, and “the case in such studies generally has been a person (e.g., a teacher, learner, speaker, writer, or interlocutor) or a small number of individuals on their own or in a group (e.g., a family, a class, a work team, or a community of practice)” (Duff, 2014,). Case study method gives opportunity to research different aspects of language learning. For example, modern papers include discussions of online language learning courses (Mok, 2014) because the method of case study helps to emphasize individual peculiarities of every case, deeply understand reasons and results due to various details which usually are not taking into consideration in experimental studies. At the same time every particular case gives much information for general conclusion since language learning process always has the same structure – there is someone who knows the language better and has the right to teach and someone who needs to be taught.

Since psychologists and psycholinguists suppose that L2 and L1 acquisition processes have much in common (see (Belyanin, 2004) for references), we suggest that it is effective to use the method of case study for infant speech development research. In our research the case is a particular baby – my daughter K., 4. I have written her utterances, dialogs with me and other adults, her “self-speech” expressions (when a baby talks to his/herself while playing) since K. was at the age of 6 months. Of course, it’s impossible to write down every child’s utterance, but most remarkable – which I considered interesting in some respect – were collected in a kind of scientific diary. Many of them are the expressions which attracted my attention because they were different from standard colloquial language expressions or were considered unusual for a child’s speech (the structure and scientific purpose of the diary is presented in (Osokina, 2015)). So, all situations presented in this paper as illustrative material to linguistic thoughts and conclusions are taken from my diary. K.’s speech expressions are given translated into English for better understanding.

Today the diary contains descriptions of over 500 speech situations with my commentaries explaining the reasons or situations that preceded the described utterances and my interpretations of their linguistic value. The form of the diary helps to see the process of language changing and developing in every small detail. In this paper I am going to discuss several situations in which K. pronounced very difficult abstract words the meaning of which she could not know at that age and nobody could have explained their meaning to her. Since such situations have repeated over time (and in my conversations

with other mothers having children of the same age I found out that they had noticed similar facts) I may conclude that these situations have general character and must be studied as parts of universal language acquisition mechanism.

### 3. Problem discussion

M. Hauser, N. Chomsky and W.T. Fitch mention in their article that there is “a long tradition holding that conceptual-intentional systems are an intrinsic part of language in a narrow sense”; and since “each expression is, in this sense, a pairing of sound and meaning” it is necessary to understand “how the faculty of language satisfies these basic and essential conditions” (Hauser, Chomsky, and Fitch, 2002). Indeed, most researches especially in the field of cognitive linguistics try to prove that concepts are not only the intrinsic characteristics of words but their primary characteristics. E. N. Negnevitskaya and A. M. Shakhnarovich in their experimental research of infant speech come to conclusion that children somehow may “feel” sound-meaning connection and affirm that meaning is the internal attribute of a language sign (Negnevitskaya & Shakhnarovich, 2006).

Sound-concept connection has been the crucial problem of linguistics. As Hauser, Chomsky and Fitch did it in the quoted article, we think that it's better to leave the question whether the concept is the internal word attribute or not to other researches: in this paper we want to attract attention to the fact that little children may get real satisfaction working and playing with material sound words rather than their concepts. Getting pleasure from playing with concepts is something that comes with adulthood, children may get real pleasure playing acoustic-articulation games.

Word concepts are given so much attention because a cognitive linguist usually thinks this way: When a person wants to say something, first he/she has an idea of what he wants to say in his mind; the idea exists in cognitive form at this moment; then the person tries to put this idea into words. A cognitive scientist wants to understand how this mechanism works (such an approach is given, for example in the works by S. Pesina (Pesina & Yusupova, 2014). But to be able to put one's idea in to words one must know the words connected with this idea first.

Investigations into infant speech provide a lot of evidence of the fact children may use the words from their developing lexicon to name new situations if they do not know the words which can describe the situation better. For example, a child may use the word *missed* to describe the situation of missing the train (where this word suits properly) and the situation of putting on his/her clothes on the wrong side (where this word does not suit properly, but the idea is understandable). We must underline that children in such situations use words they know to give names to absolutely definite situations new to their life experience. There is no evidence that the child realizes the concept of *missed* in this case.

Also, we do agree that children understand the meaning of most of the words they use in their speech. It is obvious because adults teach children to speak by showing some objects and pronouncing their names: “*This is a table*”, “*This is a clock*”. When children under the age of 12 months are asked “*Where is the table?*”, “*Where is the clock*”, they turn their heads towards the named objects and look at them. So, children can understand the meaning of words before they are able to pronounce these words themselves. Again, in such situations we must talk about the connection between a word and a definite denotatum, not a concept. At a different place (at somebody's else apartment) a child may not recognize a table and a clock.

But I want to pay special attention to the situations in which children pronounce complicated words with abstract meaning which children are not specially taught to pronounce and use. For example, it would never come to my mind to explain the word *science* or *sensation* to my daughter at the age of 2 – either the material sign, or the concept – because such words are rather difficult for pronunciation, rather complex for understanding and actually are unnecessary for a child at this age. So, I was really surprised when my daughter said “*I love science!*” and “*It's a sensation*” at the age of 2 years and 4 months.

Both expressions K. acquired from cartoons which she had regularly watched on TV. The first was from “Sid the Science Kid”. The cartoon teaches natural laws and elementary science principles. At the end of each series the main character exclaims “*I love science*”. The cartoon was shown on one of the TV channels 3 times a day (the same series) and K. watched it all three times. She was waiting till the end of the series for this phrase and when it was going to be pronounced on TV, K. jumped, clapped her hands and shouted out together with the TV character “*I love science*”. I didn’t ask her what *science* was, I understood she wouldn’t explain. In Russian TV channel it was shown in Russian interpretation and the word *science* was not pronounced in the Russian variant except for the final phrase.

The phrase “*It’s a sensation*” was acquired from another cartoon about a journalist mouse. The character often repeated “*It’s a sensation!*” with exclamatory intonation. K. remembered it and learned to reproduce the whole phrase. When I asked her what *sensation* was, she thought for a while and answered “*It’s bad... It’s run fast*”. I think that in both situations she connected not even an exact word but a whole phrase with a particular situation of the reality, not a concept. She did not use the mentioned words after she stopped watching the cartoons.

The same is true with the phrase “*I’ve got an idea*”. My daughter acquired this phrase at the age of 1 year 9 months. When I asked her “*Ok, what’s the idea you’ve got?*” she only smiled and the repeated again “*I’ve got an idea*”. Other mothers who have babies of the same age also told me their children knew this phrase. When mothers asked children about their ideas, children could not answer. It is one of the most frequently repeated phrases in cartoons. Children just like this phrase, they like the way it is pronounced and may be they like the emotion it expresses. Of course they do not know the concept of the word *idea*. At least, they can’t put it into words and verbalize their knowledge.

Many may argue: if a child can’t explain the concept of the word it doesn’t necessarily mean the child doesn’t know it. But I think if knowledge can’t be verbalized, it is not knowledge – maybe feeling. Knowledge is something that may exist as the product of mental work not only as the work itself. Otherwise, it’s not at all obvious there is any mental work.

I can’t say there are a lot of such situations in my diary as described before – I counted 15 up to the age of 3, later I have not noticed that K. used words which concepts were definitely too complex for her age. But if it is obvious that a child may pronounce several words without knowing their concepts and can practice them playing with toys or in self-talks, how can we be sure that children really understand the concepts of all the other words they use in speech?

I guess that in each case it was more important for a baby to be able to learn how to pronounce the phrases. Children experience real pleasure when they manage to pronounce certain sounds or sound groups especially which they couldn’t pronounce earlier. I come to such a conclusion very often in my diary observing different situations of K.’s language acquisition process. This idea is also underlined by other authors (e.g., see (Gvozdev, 1981; Elisseva, 2008). Also it is obvious that children especially like to repeated words and word combinations that other people pronounce with special emotional intonation. At the same time emotional connotation may not be an attribute of the word concept. For example, there is no emotional connotation or meaning element in the structure of the concepts *science* or *idea*.

Actually, a child may practice the pronunciation of such sound groups which are not always equal to a word or to a meaningful phrase. For instance, K. was watching a cartoon “Dora the Explore”. The cartoon is translated into Russian but one of the cartoon purposes is to teach English, so some English words are given there without translation into Russian. Dora asks children (viewers of the cartoon) to answer some questions. She may begin the question in Russian and then switch into English like this “*Куда мне пойти – to the left or to the right?*” (“*Where should I go – to the left or to the right?*”). At the same moment the character on the screen shows to the left or to the right with her hand. A Russian child hears the beginning of the phrase in Russian and the end – in English. Not having sufficient English language experience, K. divided English expressions into two parts which were connected with the main character’s hand movements when she showed the left and the right sides. So, answering questions K. pronounced such sound groups as *totheleft* and *ortotheright*. Thus, *ortotheright* existed for her as one language expression (maybe equal to one word) which she connected with a certain picture on the TV screen. She could pronounce this sound expressions and even could answer the questions of the cartoon

character properly, though she still can't answer properly even in Russian in which direction we go, to the left or to the right.

So, we can come to the preliminary conclusion that while acquiring language children may understand sound-meaning connection only in such a way that they connect some sound combinations with a certain fragment of reality and/or with some articulation movements of the tongue. There is no strict connection between an exact word and its concept at this stage of language acquisition but it develops later when a child gets more language experience and learns more standard collocations with the same words. If we consider the described fragments of the reality as a kind of complex referent (denotatum), we may think that such sound-referent connection is the beginning of concept formation. But it only proves that concepts as parts of language cognitive system are not given to children at the age of 2.

There are situations when a child uses words even without their connection with certain fragments of reality. For example, it is true with such abstract concepts as numerals and numbers. Children may pronounce all numerals from 1 to 10 without mistakes even at the age of 1 and several months but they cannot connect numerals with corresponding numbers and cannot actually count objects. It means that they can repeat a strict word order without knowing the meaning of this order and the meaning of each sign within the order. They memorize only material sound order first and get the sense of its meaning much later after a long period of working and playing with this sound order as if they are practicing such necessary physical movements as walking.

#### 4. Conclusion

General conclusion out of the privies discussion is: children acquire words as material signs first and only later they develop concepts through material work with words in their speech. We do not distinguish such notions as *concept* and *word meaning* in this paper though theoretical linguistics has such a tradition. We use the word *concept* to name the cognitive part of the word which is understood in traditional linguistics as the intrinsic part of the language sign. Our study shows that this intrinsic part is not obvious for a child until he/she has got sufficient experience working only with material parts of the words. The first step of this work consists in recognizing repeated sound groups in other people's speech and the second necessary step is articulation of these sound groups which can stand for both – a separate word and a phrase. Understanding of the concept comes after formation of the ability to recognize and to pronounce a word with proper articulation in different standard collocations or phrases with this word.

Concepts are not acquired together with words – they grow out of words usage. This makes us think that a certain concept can't be connected with a certain word – it must be connected with a set of collocations with this word. Logical structure of the concept appears as a result of keeping all collocations in memory. So, language knowledge is not built on the conceptual basis but has it as the result of language processing in communication.

#### References

- Belyanin, S.P. (2004). *Psycholinguistics*. Moscow: Flinta (Chapter 4).
- Duff, P.A. (2014). Case study research on language learning and use. *Annual Review on Applied linguistics*, 35, 233-255.
- Eliseeva, M.B. (2008). *Phonetic and lexical development of a child*. Saint Petersburg: Herzen University.
- Gvozdev, A.N. (1981). *From the first words to the first class. A diary of scientific observations*. Saratov: Saratov State University.
- Hauser, M.D., Chomsky, N., & Fitch. W.T. (2002). The faculty of language: what is it, who has it, and how did it evolve? *Science*, 298, 1569-1579. Retrieved from: <http://psych.colorado.edu/~kimlab/hauser.chomsky.fitch.science2002.pdf>

Leontyev, A.A. (1969). *Language, speech and speech activity*. Moscow: Prosveschenie.

Mok, J. (2011). A case study of developing student-teacher's language awareness through online discussion forum. The impact of applied linguistics. *Proceedings of the 44<sup>th</sup> annual meeting of the British Association for Applied Linguistics*, University of the West of England. Scitsiugnil Press.

Negnevitskaya, E.N., & Shakhnarovich, A.M. (2006). *Language and children*. Moscow: Nauka.

Osokina, S.A. (2015). Word collocations as language knowledge patterns: a study of infant speech. *The XXVI Annual International Academic Conference, Language and Culture*, Tomsk – Russia, October 27–30, 2015. *Procedia – Social and Behavioral Sciences*, 200, 353-358.

Pesina, S., & Yusupova L.G. (2014). Words functioning in lexicon. *2-nd Global Conference on Linguistics and language teaching, LINELT 2014*, Dubai – United Arab Emirates, December 11-13, 2014. *Procedia – Social and behavioral sciences*, 192, 38-43.

Tomasello, M. (2003). *Constructing a language: a usage-based theory of language acquisition*. Cambridge: Harvard University Press.

Vygotsky, L.S. (1999) *Thinking and speech*. Moscow: Labirint.