

The young children's sensitivity to the communicative context as a trigger for grasping new words from the adult speech

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Introduction

In this research we have tested if the young children's sensitivity to the communicative context influence on acquiring new word meanings.

Previous research on speech development discovered that children use many external constraints for learning new word meanings such as object color (Carey, Bartlett, 1978), shape (Landau, Smith & Jones, 1998), mutual exclusivity bias (Markman, 1991).

We suppose infants and young children to be able to create the common meanings with an adult. This ability is built on the joint actions with adults and mediates children attention to the new words by an adult (Woodward, 2004). The way this mediation works supposes that attention is attracted to the new information that appears only in communicative context-preserving condition (Vygotsky, 1986). If the new information appears with a change in communicative context, attention to it will be weakened for its relevance to context other than initial.

Materials and method

Subjects. 40 three-year olds ($M=3.6$) and 40 four-year olds ($M=4.8$).

Procedure. We varied the communicative context in our experiments. Three- and four- year-old children heard a new word applied to the unknown artificial object while playing a game, but in one condition the **communicative context was changed** (the new word was uttered in the presence of a new adult who didn't participating in the game from the beginning) and in the other condition the **context was preserved** (second adult was there from the beginning).

In both conditions experimenter read the instruction twice, but at the first time – before the game was started – he called the original object (the one the child was playing with) by a neutral word (*this thing*). Then, in the middle of the game, he broke it and repeated the instruction, this time calling the target object by a novel word (*modi*).

Results

Subjects were tested 15 minutes later the game was finished. Experimenter showed them the original object among novel ones and asked for a *modi*.

We found that three- year-old children recalled new object name much better in the context-preserving condition than in context-changing condition, $\chi^2(1)=19.80$, $p<0.001$ (**Fig.1**). But four-year-old children recalled equally well in both conditions, $p>0.1$ (**Fig.2**)

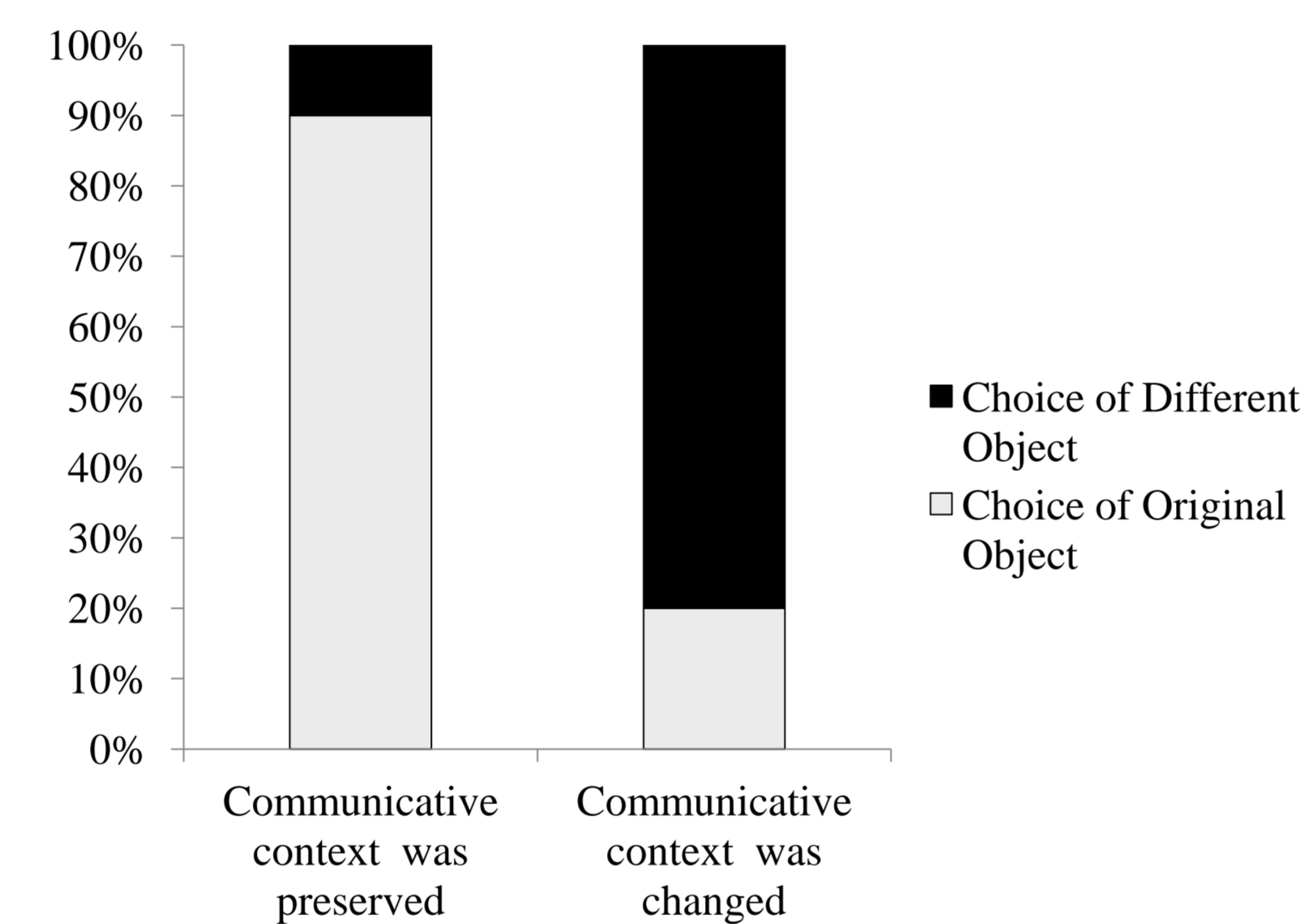


Figure 1. Three-year old' choice of original objects in different communicative contexts

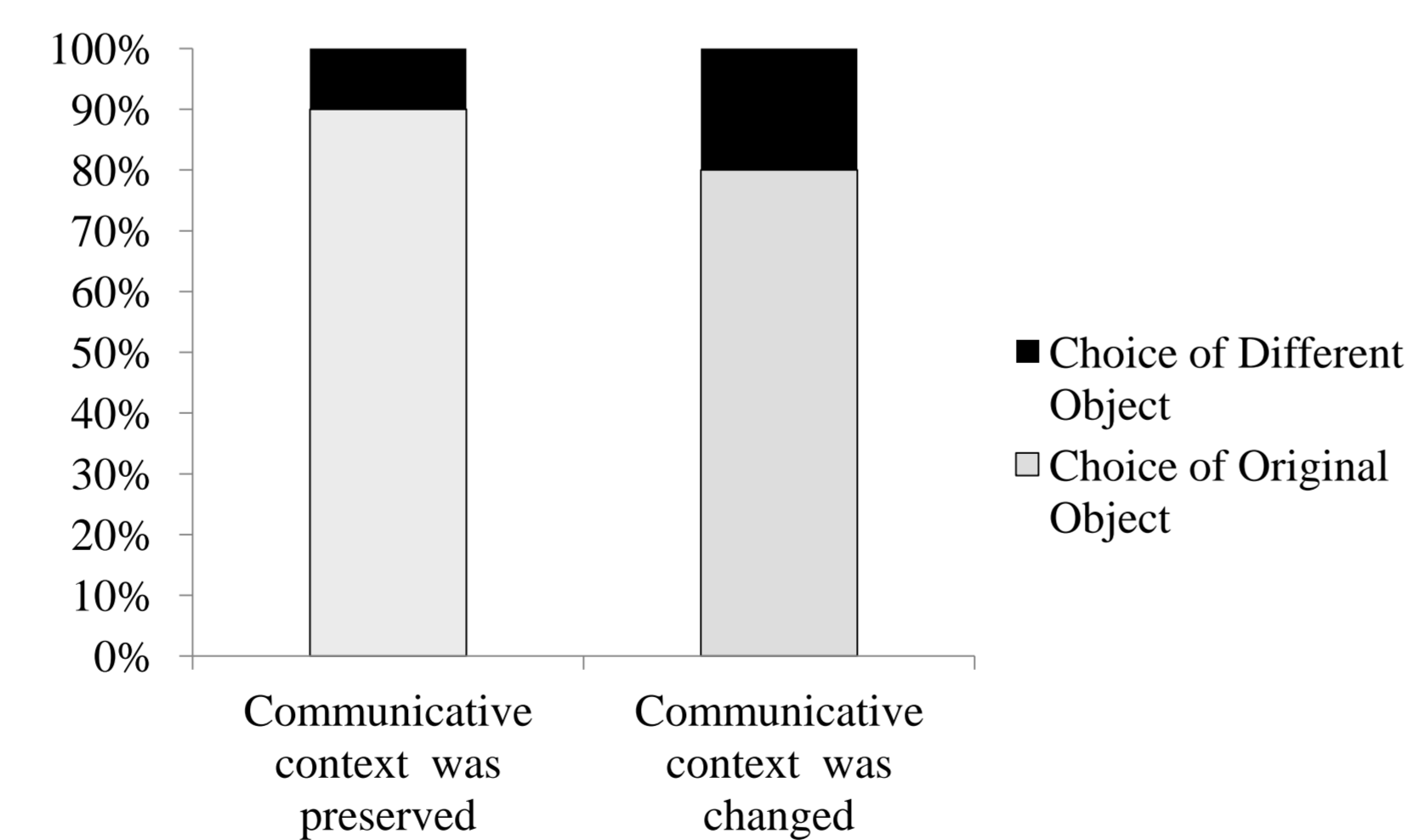


Figure 2. Four-year old' choice of original objects in different communicative contexts

Three-year-olds appeared to be more sensitive to communicative context, grasping new words from adult speech only in context-preserving condition. But it could possibly be due to the difficulty of the task (so the change of communicative context might disturb them).

In the additional experimental condition (20 four-year olds, $M=4.4$) we found that such sensitivity to the communicative context doesn't depend on the task difficulty.

We replaced the stick for object manipulation by an inconvenient one. The new stick was longer, made of soft material, and its tip was hidden behind a paper disc so it couldn't be seen. Even four- and five-year-olds wasted much more time on accomplishing the task in that condition.



Figure 3. Example of easy-to-use stick (below) and inconvenient stick (above). Test objects in the middle

Four- year-old children recalled new object name again equally well in both conditions even when the task performance was significantly declined, $\chi^2(1)=0.21$, $p=0.5$. So the sensitivity to the communicative context doesn't depend on task difficulty but appears to be age-specific property of three-year-olds.

Conclusions

Our research has revealed that 3-4-years-old children decided whether to use word learning strategies (shape bias, mutual exclusivity and others) on the base of information about stability of communicative context: if a communicative context is changing they don't grasp the new words from adult speech.

But in future we must find out why such sensitivity to communicative context is declined in preschool children.

Literature cited

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For further information

Please contact al.kotov@gmail.com. More information on this and related projects can be obtained at site of Research Group for Concept and Cognitive development (www.cogdevelopment.com)