

Learning and Generalizing new Words by Young Children: We Should Take Memory Factors into Account to Enhance Retrieval of Novel Names

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Abstract

It is often assumed that young children learn to associate a word with a stimulus very easily, accurately, with a limited number of presentations: fast mapping (Carey, 1978; Markson & Bloom, 1997) and that these are long term associations and that children generalize spontaneously to new instances of the same category (Clark, 1973; Mervis, 1987).

Our proposal is that previous studies have overestimated children's memory of novel names and that their memory of novel name-referent associations is negatively influenced by discrepancies between the learning context and new occurrences of the object. The learning context might be different in later "presentations". Our purpose is to assess the role of these discrepancies. More generally, we believe that memory (cognitive) factors do interact with generalization processes of novel words and that training programs of lexical acquisition should include these factors in their methods.

Experiment 1.

We manipulated the role of the scene in which the target stimulus was included during the learning phase. Three and four-year old children had to learn the name of unknown stimuli displayed in a scene.

The procedure involved a learning phase followed by 3 posttests. The variable of interest was the scene associated with the stimulus in the training and the testing phase. Two types of presentation of the target stimulus: (a) same scene in both phases, (b) a stimulus is embedded in a scene in the training phase and in a novel scene in the posttest.

Results showed a significant effect of the type of presentation, in both the naming task and the comprehension task: lower results in the condition (b) than in the (a) condition. This strongly suggests that previous studies have neglected the role of "extra stimulus" information in their account of children's generalisations and memory for novel names.

Experiment 2

We compared the memory for training instances with new instances (not encountered during the learning phase). For most theoretical accounts, there should be no difference between training and novel instances as long as the child categorizes both in the same category, whereas a memory account might predict a difference in favor of training stimuli.

Children aged three, had to learn the name of four stimuli. In the transfer phase they had to recall the



name of the training stimuli (e.g., a hammer seen during training) and of novel instances of the training categories (e.g., a novel hammer).

Again the results revealed better recall for the old instances versus the new instances, even though children could tell that the old and new instances belonged to the same category.

Our explanation is that training instances provide better cues to the word than novel instances because there is a perfect match between the cues available in the learning and the test phase for old items. To conclude, teaching methods of novel words should take these memory effects in the sense that they should design the training methods in order to decrease the effect of the differences between training and transfer stimuli. A number of suggestions are discussed.