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Influence of Semantic Referent in the Fast Mapping Paradigm on L2 Vocabulary Learning

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Abstract

Complementary learning system believes that the acquisition and consolidation of new information is a relatively slow process. Contrary to the traditional theory, recent studies have shown that new words learned by fast mapping (FM) paradigm can be rapidly integrated into neocortical memory networks, inducing neural mechanisms different from the complementary learning system. However, factors affecting rapid cortical integration through FM are still under debate. This study thus explored the influences of semantic referent on L2 English vocabulary learning in the FM paradigm. Fifty participants were randomly assigned to the fast mapping or the incidental encoding learning condition, and completed three vocabulary tests shortly after learning and again about 24 hours later.

Index terms— fast mapping, incidental encoding, semantic referent, second language vocabulary learning, memory network.

1 Influence of Semantic Referent in the Fast Mapping

Paradigm on L2 Vocabulary Learning

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Abstract-Complementary learning system believes that the acquisition and consolidation of new information is a relatively slow process. Contrary to the traditional theory, recent studies have shown that new words learned by fast mapping (FM) paradigm can be rapidly integrated into neocortical memory networks, inducing neural mechanisms different from the complementary learning system. However, factors affecting rapid cortical integration through FM are still under debate. This study thus explored the influences of semantic referent on L2 English vocabulary learning in the FM paradigm. Fifty participants were randomly assigned to the fast mapping or the incidental encoding learning condition, and completed three vocabulary tests shortly after learning and again about 24 hours later. The results showed that (a) in the lexical integration test, only the FM group produced lexical competition effects, which proved that the semantic referent in the FM paradigm can promote the rapid lexical integration of new words into the pre-existing mental lexicon, (b) in the semantic integration test, only the FM group produced semantic priming effects, which proved that the semantic referent in the FM paradigm can promote the rapid semantic integration of new words into the semantic network. The results indicated that the semantic referent is driving factors for rapid cortical integration through FM. The study has important implications for vocabulary instruction and provides a new perspective for L2 vocabulary learning.

Keywords: fast mapping, incidental encoding, semantic referent, second language vocabulary learning, memory network. Abstract-???????–????????? ??? ???????????ç¼?”???????????????? ??????ç ?”????????????????? ????????????????????????????? ?????????????å?” ????????????? ??????????????ç ?”??????????? ???????????????å?” ?50????????? ????????????????????????? ???-?è ?”???? ????????????? ??????????ç ?”????1)?????????? ??????ç?”???????åº?”????????????? ??????????????????????????2) ???????????????ç?”???????åº?”??? ????????????????????????????? ????????ç ?”?ç»?”?????????????

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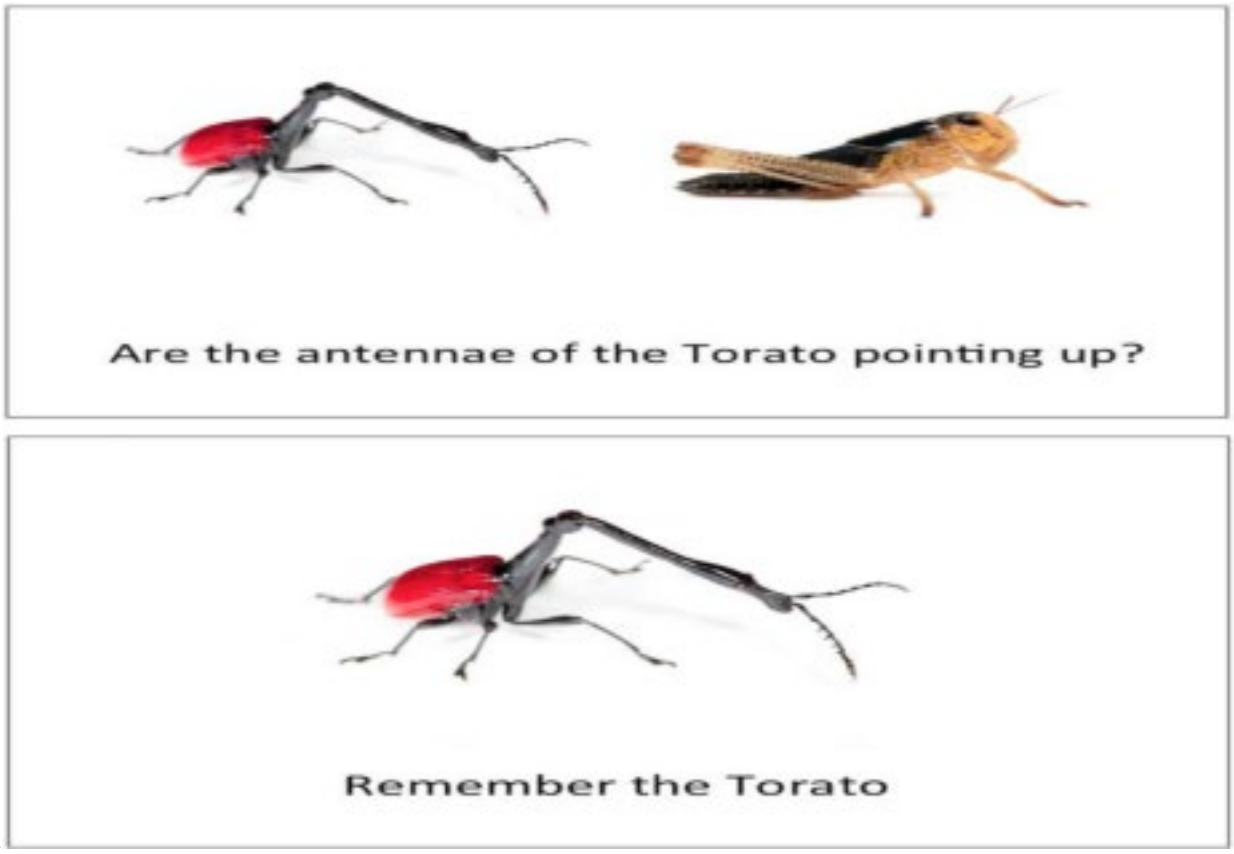

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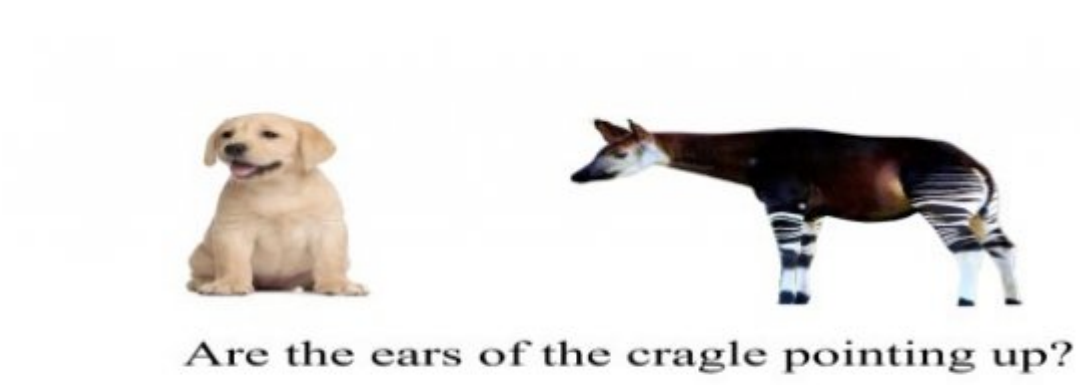

Figure 2: ???????????

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