

## 摘要

言语产生是人们内心表达思想的重要途径，它涉及概念组织、词汇选择、音韵编码和发声阶段。在这个过程中，非目标词的语音信息是否和最终产生的目标词一样得到激活，即是否存在多重语音激活是口语产生中独立两阶段模型和层叠模型争论的焦点之一。印欧语言研究采用不同的实验技术和范式大多发现了多重语音激活。汉语多重语音激活研究少，已有的研究没有探测到非目标词的语音激活，且汉语多重语音激活研究多只集中在对名词产生的探讨，对动词产生关注少。理论语言学根据语义和语法上的差异将名词和动词分为两大词类，这一分类也得到大量实证研究证据支持。名词和动词在语义和语法特征的差异可能影响词汇产生过程中信息的加工，因此研究采用一系列行为实验探究汉语口语词汇的产生，重点对汉语动词产生时的多重语音激活情况进行探讨。研究主要发现：(1) 单音节孤立动词产生实验的行为结果没有探测到音节层面的语音效应；(2) 述宾结构中动词产生的行为实验发现显著的语音抑制效应，和无关干扰条件相比，个体在音节相关条件下词汇产生潜伏期显著更慢，表明非目标词的语音得到激活。(3) 名动成语产生实验中动词在前成语产生时非目标词语音激活，出现促进效应，名词在前成语产生没有探测到语音效应。综合研究结果显示语法语境下，动词的语法信息的激活促进词汇的通达，使词汇选择阶段传递至语音编码阶段的激活更多，两阶段联系紧密，非目标词的语音激活被探测到。这同时也说明汉语动词产生过程中非目标词的语音激活不是自动激活的过程，而是有一定的条件的。研究还从理论语言学 and 神经层面实证证据反映的名词和动词本身语义和语法特点及认知加工差异等方面解释汉语名词和动词表现出的不同的口语产生模式。

**关键词：**言语产生；独立两阶段模型；层叠模型；多重语音激活；汉语动词产生

## Abstract

Speech production is one of significant ways for people to express their thoughts, of which lexical production involves cognitive processes including conception activation, lexical selection, phonological encoding and articulation. During this process, whether the non-target lemma activates its corresponding phonological representation has been intensively argued. Serial models hold that only the phonological form of the selected lexical node can be activated, whereas cascade models posit a theory of multiple phonological activation that phonological representations of the target lemma, together with all non-target candidates are co-activated during the lexical retrieval. Substantial evidences in alphabetic language support multiple phonological activation. However, little is known about how activation of the non-target node spreads in word production of non-alphabetic language, i.e. Chinese. Besides, the existing study mainly focuses on noun production yet neglects verb production which plays a crucial role in sentence production. Therefore, this study aims to investigate multiple phonological activation in Chinese verb production by using behavioral methods. The results are: (1) No significant phonological effects were found in single verb production; (2) However, the result of verb phrase production revealed phonological activation of non-target nodes with slower producing latencies in phonologically related distracted pictures compared with phonologically irrelevant distracted pictures; (3) Significant facilitation effects were found in the production of Chinese verb idioms. The results indicate that activation of grammatical information plays a role in detecting the phonological activation of non-target words during production and the activation is conditional. Overall, the findings support a cascade model for verb production. Different patterns of Chinese noun and verb production were explained by linguistic knowledge as well as neurophysiological empirical evidence.

**Key words:** Chinese verb production; cascade models; multiple phonological activation