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马书红 著

陕西人民出版社

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图书在版编目（CIP）数据

范畴化因素对英语空间介词语义习得的影响 / 马书红著. —西安：陕西人民出版社，2010
ISBN 978-7-224-09488-6

Ⅰ. ①范… Ⅱ. ①马… Ⅲ. ①英语—介词—教学研究
Ⅳ. ①H314.2

中国版本图书馆 CIP 数据核字（2010）第 186527 号

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出版发行　陕西出版集团　陕西人民出版社
（西安北大街 147 号　邮编：710003）

印　　刷　西安市建明工贸有限责任公司
开　　本　850mm×1168mm　32 开　11.5 印张
字　　数　260 千字
版　　次　2010 年 9 月第 1 版　2010 年 9 月第 1 次印刷
书　　号　ISBN　978-7-224-09488-6
定　　价　20.00 元

本书的出版得到贵州师范大学博士研究基金的资助，特表示衷心的谢意！

前 言

空间概念是人类最重要的基本概念之一，人类的诸多活动都离不开他们对空间的认知。在空间中，物体或者处于不同的静态位置或者以不同的方式运动从而使位置发生改变。为有效地认识和表达物体间纷繁复杂的空间关系，人类把它们分为不同的种类，如上、下、左、右、前、后、里、外、飞过、走过、爬过等。人们对事物之间不同空间关系的认知、比较、分类和组织的结果就形成了空间范畴化系统（spatial categorization system）。由于人类拥有相同的感、知觉器官，相同的推理、分类和记忆能力，与同样的外在环境进行互动，因此各语言社团在空间范畴的概念语义内容上存在着相似之处。然而，不同的语言社团又可能从不同的视角（vantage point）来观察同样的空间结构，选择不同的参照物来确定两个物体间的位置关系，突显同一个空间关系的不同方面，赋予参照物不同的功能（如包含，支撑等），因而各语言社团的空间概念系统之间又有差异。例如，汉语和英语在划分“水”和“杯子”的关系时是一致的，它们都把两者的关系视为

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“包含”的空间关系（杯子里有些水，There is some water ***in*** the glass）。但是，汉、英语在认知“钉子”和“墙”的关系时却有不同，汉语把这种关系归入“接触与支撑”的范畴（墙上有一颗钉子），而英语则认为“钉子”嵌进了墙里，而且被固定在“墙”体里，是“部分包含”的关系，因而把这种关系归入 ***in*** 的范畴（There is a nail ***in*** the wall）。

英语主要用介词来表示物体之间不同的空间关系，而汉语主要用方位名词或介词 + 方位名词的结构来描述空间关系。英语的介词虽然词形简单，如 in，on，at 等只由两个字母组成，但是英语学习者却很难掌握它们的用法，介词的学习是个难点，这是第二语言习得研究者的共识。概言之，造成英语介词学习困难的原因有二：一是英语介词表示的是说英语的民族对空间关系的认知和分类等概念，因此，当学习者在学习英语的空间介词时，他们就不仅仅是学习它们的词形和语义，更是学习深层的英语的空间概念；二是学习者已有的空间概念系统对他们的学习会产生影响，他们需要在对比母语和目标语空间概念系统的异同的基础上，对母语的空间概念系统进行重构，从而建立起符合目标语要求的空间概念与认知系统（Becker & Carroll 1997）。

空间介词的习得问题自 20 世纪 70 年代末开始受到研究者的关注，成为二语习得研究领域的一个重要的研究课题，但目前国内外对这个问题的研究深度和广度都非常不够，而从认知语言学的角度研究介词习得的文章或专著更是少见。本书以认知语言学的范畴化理论为基础，探索中国学生对英语介词语义的学习，希望能够有助于揭示制约习得的深层认知因素和习得理论的构建，同时也希望给实际的课堂教学带来一些启发。

Effects of Categorization Constraints on the Acquisition of English Spatial Prepositional Semantics

Abstract

It is widely recognized that preposition learning presents one of the hardest problems for EFL learners. For example, they often produce sentences like *There is some water* ***in*** *the bottle*, *There is a book* ***on*** *the desk*, * *There is a hole* ***on*** *the shirt*, * *There is a crack* ***on*** *the jar*, etc. Among the four examples, the uses of **in** and **on** in the first two sentences are correct, while the last two uses do not conform to English spatial categorization conventions. Why some uses of spatial prepositions are easier for EFL learners while others are more difficult and more challenging? What are the underlying factors constraining EFL learners´ performance?

The above problems were approached through a comparative study of the spatial semantics of three English prepositions **in**, **on**, **over** and their Chinese counterparts in light of the spatial categorization theory. The comparison revealed that the three prepositions differ from each other in that they describe different bundles of spatial relations that belong to three spatial categories. Meanwhile they also share spatial features with one another as well as with other neighboring English prepositions such as **beside**, **through** and **above**. Another important finding from the comparative study is that there also exist spatial categorization commonalities and disparities across English and Chinese. Specifically, the semantic members of an English spatial category that share features with the core members of a neighboring category are often classified into a different category in Chinese. Conversely, the semantic members of an English spatial

category that do not share features with the core members of the adjacent category tend to fall under a corresponding category in Chinese. The former kind of semantic member is named Type 1 semantic member whereas the latter kind is called Type 2 semantic member. The above findings from the comparative study suggest that semantic overlaps and dissimilarities between English prepositions on the one hand, and categorization commonalities and disparities across English and Chinese on the other are two fundamental constraints relevant to L2 learning of spatial semantics. Furthermore, L2 learners´ perception and classification of prepositional semantic members into core, intermediate and peripheral types may constitute another constraint on their learning behavior.

On the basis of the comparative study, it was hypothesized that the above three constraints would exert a weighted, instead of monolithic, impact on L2 learning of different spatial semantic members. To test this hypothesis, three empirical studies were run employing tasks including forced – choice, semantic ranking and semantic judgment. The results of Study 1 showed that the learners performed much better on Type 2 semantic members than on Type 1 semantic members. This demonstrates that the interaction of semantic differences between the L2 prepositions and categorization similarities across the L1 and the L2 would greatly facilitate the learning of Type 2 semantic members. By contrast, the interplay of semantic overlaps between the L2 prepositions and categorization discrepancies between the L1 and the L2 would pose considerable difficulty to the learning of Type 1 semantic members. Furthermore, when a prepositional semantic member shares features with the core member of a neighboring preposition, the learners were prone to mistake the former for the member of the latter preposition, but not the other way round. Besides, the more features a prepositional semantic member shares with the core member of another preposition, the more difficult that semantic member would be for the learners to acquire. The finding that the advanced learner group performed much better than the beginner group, but not better than the intermediate learner group suggests that the

learners´ spatial knowledge does not necessarily develop hand in hand with their general language competence.

The results of Study 2 and Study 3 revealed that the learners and the native speakers reached a greater degree of consensus on ranking the core members of the three prepositions, but tended to diverge in rating the non – core members. The semantic members of **in** and **on** that were ranked as the core ones by the learners obtained the highest means in the semantic judgment task. In contrast, the members of these two prepositions that were rated as peripheral members received the lowest semantic judgment scores. Besides, the judgment mean differences between the core and the non – core members of **in** and **on** were highly significant. This proved that the learners´ performance on the semantic members of **in** and **on** was influenced by their perception and categorization of these semantic members. Contrary to the learners´ judgment pattern on **in** and **on**, no significant variations were found in judgment scores across the members of **over** that were rated as core, intermediate and peripheral types for both the beginner and the intermediate learner groups.

The study has uncovered three overriding constraints on L2 learning of spatial semantics. They are a) semantic similarities and differences between L2 prepositions, b) spatial categorization commonalities and disparities across the L1 and the L2, and c) L2 learners´ perception and classification of prepositional semantic members. These spatial categorization constraints have been shown to cause varied learner performance on different kinds of prepositional semantic members. The above findings have confirmed the hypothesis and shed much light on the mechanism of L2 learning of spatial semantics.

Key Words: spatial categorization, spatial relation, spatial semantics, core semantic member, non – core semantic member

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摘 要

介词学习是外语学习者面对的最大难题之一，这是二语习得研究领域的共识。比如，外语学习者常常造出这样的句子 *There is some water **in** the bottle*，*There is a book **on** the desk*，*There is a hole **on** the shirt*，*There is a crack **on** the jar* 等等。在这些例子中，前两句中 ***in*** 和 ***on*** 的用法是正确的，而后两句中的用法却不符合英语空间范畴化的规范。为什么英语空间介词的一些用法对于外语学习者而言比较容易学习而另一些用法却较难掌握？造成外语学习者这两种不同表现的原因是什么呢？

为解决上述问题，我们首先以空间范畴化理论为基础分析对比了三个英语介词 **in**，**on**，**over** 和它们的汉语对应词的空间语义。分析结果表明这三个英语介词分别表示属于三个空间范畴的不同的空间关系，同时它们之间又共享某些空间语义特征，而且这三个词还与其他邻近的介词如 **beside**，**through and above** 等共享一些语义特征。空间语义对比分析的另一个重要发现是英、汉两种语言在空间范畴化方面既有共性又有差异。具体而言，当一个英语空间范畴的成员与相邻范畴的核心成员共享语义特征时，该成员在汉语中往往被划入不同的空间范畴内，与此相反，跟相邻范畴的核心成员不共享语义特征的那些英语空间范畴的成员往往被汉语归入相同的空间范畴里。我们把前一种语义成员称为第一类语义成员，把后一种语义成员称为第二类语义成员。上述空间语

义对比分析的发现说明英语介词之间的语义相似性和不同以及英、汉语之间在空间范畴化上的共性和差异可能是制约二语空间语义习得的两个关键因素。此外，外语学习者对介词语义成员的感知和划分（即分为核心、中间和边缘三种）或许是影响他们学习的另一个重要因素。

在空间语义对比分析的基础上，我们提出了这样的假设，即上述三个因素对不同的空间语义成员的习得会产生不同的影响。为验证这个假设，我们做了三个实验，分别采用了三种任务，即多项选择、语义等级判断和语义可接受性判断。第一个实验的结果表明学习者在第二类语义成员上的平均分远远高于第一类语义成员的平均分。这个结果证实英语介词之间的语义差异与英、汉语在空间范畴化上的共性这两个因素的共同作用极大地降低了第二类语义成员的习得难度。相反，英语介词之间的语义相似性与英、汉语空间范畴化的差异这两个因素的共同影响使第一类语义成员很难习得。此外，当一个英语介词的语义成员与相邻介词的核心成员共享语义特征时，学习者往往错把前一个介词的成员当作后一个介词的成员，但不会把后一个介词的核心成员当作前一个介词的成员。而且，一个介词的语义成员与相邻介词的核心成员共享的语义特征越多，该成员就越难学会。实验的另一个发现是，虽然高英语水平组与低英语水平组的平均分之间有显著差异，但高英语水平组的得分并不比中级水平组的得分高。这说明二语学习者的空间知识的发展与它们的整体语言能力的提高并不是同步的。

第二个和第三个实验的结果显示：学习者和英语本族语者在三个介词的核心成员的分类上趋于一致，而在非核心成员的分类上差异较大。在 **in** 和 **on** 的语义成员中，被学习者划分为核心成员的语义成员在语义可接受性任务中获得的平均分最高，与此相

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反，被判断为边缘成员的语义成员得分最低。并且 **in** 和 **on** 的核心成员和非核心成员的平均分之间差异显著。这证明学习者对 **in** 和 **on** 的语义成员的习得受他们对这些成员的感知和分类的影响。与 **in** 和 **on** 的语义成员的习得趋势相反，低英语水平组和中级英语水平组对 **over** 的核心，中间和边缘成员的语义可接受性判断的平均分之间没有明显差异。

本研究发现了制约二语空间语义习得的三个主要因素，即（1）二语介词之间的空间语义相似性和差异；（2）一语和二语在空间范畴化上的共性和不同；和（3）二语学习者对介词语义成员的感知和分类。实验结果表明这些空间范畴化因素对习得不同种类的介词语义成员会产生不同程度的影响。实验数据不仅证实了本研究的假设，而且揭示了二语空间语义的习得机制。

关键词：空间范畴化，空间关系，空间语义，核心成员，非核心成员

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