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Constructions: Evidence from L2 Production of
English Dative Constructions by Chinese
EFL Learners

结构启动与第二语言语法构式学习：
以中国学习者产出英语双及物构式为例

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序

这本书是作者根据自己的博士论文改写而成的学术专著，从外语学习的角度探讨语言使用中的一个奇趣现象——句法启动。我很喜欢这个选题，也喜欢作者的研究思路。

句法启动又名结构启动，是指人们在交流互动过程中有重复他人或自己用过的语言结构的倾向。这个现象早在 20 世纪 80 年代中期已经有人观察到了，接下去便有心理语言学实证研究，21 世纪以来不断升温，研究范围由点到面，从观察和验证结构启动现象的存在到将其用作一种新的科研方法，从探讨对话互动的机理到建构当今基于使用的语言学理论，近年又从母语研究延伸到第二语言习得研究，新的研究增长点不断涌现。时至今日，研究已向纵深发展，更多的成果可期。作者选择这样一个上升的热点课题，在新开创的应用领域展开研究，既是机遇，也是挑战。

作者选择在这个领域开展研究，不仅在我国，而且在国际上也算是先行者之一。国际上，第一篇报道有关结构启动的二语习得论文直到 2006 年才出现。早在 2004 年，作者就捕捉到结构启动的研究信息，并着手开展了研究。当时，有关二语习得的结构启动研究，国内外一篇参考文献都没有。作者需要创新，需要针对我国学习外语的学生，结合二语习得研究的特点，借鉴心理语言学的一些研究手段，自行设计实验，这个过程是十分艰辛的。搞科研的人都知道创新的价值，但做博士论文过程中的创新是需要担当风险的。课题没有前人做过，研究若无发现，完成不了学位论文怎么办？但作者顶住压力，不畏艰难，反复试验，深入思考，潜心钻研，终有收获。由于选题角度佳、研究方向正确，研究也就越做越顺，难题逐个得到破解。在研究结果已有眉目的时候，国际权威期刊上才出现了第一篇关于结构启动的二语习得研究论文，这无疑认可了作者的选题，增强了作者继续努力的信心。

相比作者选题的超前性，课题研究的成果更有意义。她的一系列实

验表明, 在外语学习者的语言使用当中结构启动的确存在, 确认这点是深入研究的根本出发点。既然结构启动现象存在, 这就要问: 为什么会出现, 在什么条件下出现, 受什么因素的制约, 启动效应是暂时的还是具有持久性, 对语言学和语言习得研究有什么理论意义, 对外语学习或教学有什么启发。这些问题是二语习得研究者们极为关注的, 作者都进行了探讨, 有了自己的答案, 给我们不少启示, 同时也激发我们进行更深入的思考。

当初发现结构启动现象时, 人们只是对它有一些局部的了解, 随着研究的深入和拓展, 人们的认识在深化, 视野也在扩大。最早是在语言本体层次上观察和研究结构启动, 现在把它与语言使用中的协同联系起来, 并结合时下流行的基于使用的语言学理论, 用于解释语言习得和使用现象。人们进一步发现, 在语言学习和使用的过程中, 启动效应是一种普遍的现象, 在语言层次上发生的是结构启动, 在语言使用其他层次发生的有其他各类启动, 如词汇、语义、情境等变量都对语言的学习和使用都会产生启动效应。这意味着, 语言的学习和使用受各种变量的影响, 它们相互串联、通达联动, 形成一个动态系统, 依存于语言学习者和使用者, 而结构启动只是这个系统上的一环。结构启动不是一个孤立的语言使用现象, 它的发生是整个语言学习和使用系统运作的一个外在体现, 势必对语言习得产生影响。这样看来, 研究结构启动对语言习得的意义就显得格外重要了, 这就是本书的学术价值所在。

这本书从选题到具体研究思路, 为我们开展外语学习研究树立了一个好样板, 对那些苦苦寻觅一个研究题目而不得其所的研究生, 对要想了解二语习得前沿课题的研究者, 确有不少值得借鉴的地方。

王初明

2012年9月

前 言

结构启动(又称句法启动)是指人们在产出过程中倾向于重复自己先前使用或接触过的语言结构。譬如,如果说话人自己或听到谈话伙伴产出了一个带有双宾语构式的句子 *The secretary is handing the boss a brush*, 在随后的谈话中他更愿意用双宾语构式来表述传递事件,产出类似 *The boy is passing the girl an apple* 的句子。与此相反,如果说话人产出或听到过的是一个包含介词宾语构式的句子 *The secretary is handing a brush to the boss*, 在随后描述同一个传递事件时,他则更可能使用 *The boy is passing an apple to the girl*。先前听到或产出的句子通常被称为启动句,受其影响之后产出的句子则被称为目标句。当启动句和目标句的句法结构一致时,就表明结构启动产生了。早在 20 世纪 80 年代,研究者就在自然语言中发现了结构启动,随后 Bock(1986)又率先在实验研究中证实了这一现象的存在。自此,大量心理学研究开始致力于探索结构启动现象的本质。结果发现,结构启动独立于语音和意义而存在,是在实时的句法编码过程中产生的,反映了语言产出背后存在的抽象句法表征,是探究句法结构如何被人类认知系统所表征的可靠工具(参阅 Branigan 2006; Pickering & Ferreira 2008)。

自 21 世纪以降,结构启动成为心理学和心理语言学研究中的热点。许多研究围绕结构启动产生的机理展开,发现结构启动其实是一种内隐学习,是大脑中的句法表征根据近期经验进行调整的结果(如 Bock & Griffin 2000; Chang, Dell & Bock 2006 等)。研究者逐渐发现,这个貌似简单的心理现象具有重要的交际和认知功能,在语言学习等方面具有非常重要的作用。甚至有研究者提出,句法启动是语言使用者习得句法语义映射关系(message-to-syntax mappings)的机制(Ferreira & Bock 2006),它不单是“学说话”(Bock & Griffin 2000),实际上是“学语言”(Bencini 2002: 83)。母语习得研究为此提供了佐证。有研究表明,结构启动能够帮助儿童习得尚未完全发展的语言结构。譬如,三岁左右的孩子(在自发语料中从未使用过被动结构)在经过被动句启动之后,可使用

先前仅在主动句中听到过的生造动词产出被动句(Brooks & Tomasello 1999)。而且,启动效应并非语言产出所特有的机制,而是根植于产出和理解的共有语言表征(Huttenlocher et al. 2004)。这意味着,结构启动是连接语言输入和产出的重要心理过程,具有强化和扩展语言表征的作用(Savage et al. 2003; 2006)。

受此启发,近两年,二语习得研究者开始关注结构启动,并以此为切入点,更深入客观地探索第二语言学习的机制。已有初步证据表明,会话中的结构启动能够促使学习者在后续产出中使用更复杂、更高发展阶段的句法结构(McDonough 2006; McDonough & Mackey 2008)。研究者由此推断,结构启动很可能是交互(interaction)或重铸(recast)等行为能够促进二语习得的心理机制。与此同时,结构启动研究的发现也为近年来新兴的基于使用(usage-based)的语言和语言习得观提供了证据,极大地推动了这一理论在母语习得领域的发展和应用。该理论以认知语言学理论(特别是构式语法和认知语法)为基础,提出表征和处理不可分,语言表征是在使用过程中逐渐形成的,强调频率和经验在语言学习中的决定性作用。这些观点与长期在语言习得领域占据主导地位的“天生论”大相径庭,从一个全新的角度解释了语言和语言习得的本质,引起了研究者的极大关注,大有研究转向的势头。以 Nick Ellis 为代表的学者发表、出版了一系列论著,详细论述其中的核心观点对二语习得研究的启示,并开始重新审视经验、模仿和练习等在二语学习中的作用。但是,迄今为止,有关基于使用理论的二语习得研究大多停留在理论探讨层面,少有研究提出实证证据来验证其在二语习得中的心理现实性,严重制约了理论的可推广性和解释力。造成这种局面的重要原因之一是,采用二语习得中传统的实验方法很难将其中的假设操作化。根据心理学和母语习得研究的启示,结构启动是探测表征的可靠工具,可以准确反映理解与产出、表征与处理之间的关系。因此,探究第二语言结构启动无疑为解决这一瓶颈问题提供了新思路和新方法。

上述讨论表明,以结构启动为视角审视语言学习,能够深入揭示第二语言学习过程中的心理认知机制及影响因素,为第二语言的发展特征提供新的解释。此外,以二语学习者 as 对象的 结构启动研究将为针对其他人群(儿童、母语使用者、语言障碍者等)的研究提供有价值的参照体

系,对于寻求不同人群在语言表征和处理方面的共性与差异,了解语言认知机制以及解决结构启动研究中前沿的、有争议的问题具有重要启发意义。因此,二语结构启动研究具有深远的理论意义和广阔的发展前景。但遗憾的是,目前二语结构启动研究,特别是系统研究的数量相对较少。由于研究规模、研究设计和实验控制等方面的缺陷,现有研究的结论也还有待于进一步验证,而且许多重要的问题未被涉猎。可能的原因在于,结构启动是一种高控制性的实验室研究,二语研究者对结构启动的实验范式尚不熟悉;再者,现有研究大多关注二语启动有或无的问题,而对制约启动效应的影响因素研究甚少。

本书的主要目的是深入探究第二语言产出中的结构启动现象,以期揭示出制约第二语言结构启动效应的影响因素以及结构启动对中国学生习得第二语言语法构式的潜在促进作用。其次,我们也力图从基于使用语言习得理论的视角对结构启动进行重新审视,建立起两个研究领域的接口,并以结构启动为工具对基于使用语言习得理论中的核心假设进行检验。与此同时,我们希望通过本书,读者能对结构启动的性质、发生机制和实验范式有充分的了解,为将来在自己的研究中使用结构启动方法打下良好的基础。

除前言外,本书共分六章。第一章为绪论,主要介绍了本书的研究重点、研究对象、研究理据和主要问题。第二章回顾了基于使用的语言与语言习得理论,重点阐述了构式学习的联想式学习(associative learning)机制,从而将本研究纳入到第二语言语法构式学习的背景下。第三章首先简要介绍了结构启动中核心理论和方法问题,然后回顾了母语和二语习得中的结构启动研究,以揭示语言习得和结构启动之间的关系。第四章对本书中实证研究的目标结构——英语双及物构式进行了语言学分析,并综述了现有二语双及物构式习得研究的发现。其后,通过整合结构启动研究、目标结构的语言学研究以及相关领域中的理论,我们建立起了本研究的概念框架,据此推出本研究要解决的问题并对结果做出了假设。为回答所提出的研究问题,我们进行了四个实验。第五章详细介绍了四个实验的方法和结果,并对结果进行了初步讨论。实验一和实验二分别采用了书面句子补全任务和口头图片描述任务,主要考察句法启动在第二语言产出中是否存在以及制约短期启动效应的影响因

素。实验三和实验四主要考察句法启动的长期效应。第六章主要是根据基于使用的语言和语言习得理论及结构启动理论对实证研究的发现进行了统一讨论。然后,总结了本研究的主要发现,讨论了它们对外语教学的启发意义,并指出了研究中存在的缺陷及未来研究的方向。

近年来,结构启动在国际二语习得研究界引起了广泛关注,但国内尚没有系统的专著问世。希望本书能够起到抛砖引玉的作用,增进读者对结构启动的了解和研究。在本书的写作过程中,笔者得到了导师王初明教授的悉心指导以及董燕萍教授、吴旭东教授的热情帮助,仅致谢忱!学友高育松、张洁、朱晔、魏行、卢仁顺等也对本书的初稿提出过宝贵意见,在此一并致谢。笔者虽已尽心尽力,但仍难保内容中有错漏。不当之处,请大家不吝赐教。

王敏

2013年1月28日

Abstract

This book aims to investigate structural priming in L2 learners with a focus on Chinese College-level EFL (English as a Foreign Language) learners' production of English dative constructions. Specifically, it is intended to address three issues: 1) whether structural priming occurs in L2 production; 2) whether L2 structural priming has a long-term effect and consequently affects the pattern of subsequent production of syntactic constructions; and 3) whether and to what extent the short-term and the long-term effect of L2 structural priming are mediated by linguistic and psycholinguistic factors. The overarching goal of the present study is to explore whether and under what conditions structural priming has a role to play in L2 learning of grammar constructions, thereby enriching our understanding of the psycholinguistic process involved in L2 learning. For this purpose, four empirical studies were conducted.

Experiments 1 and 2 were designed to probe the short-term effect of structural priming, that is, whether structural priming occurs when the prime sentence immediately precedes the target sentence. One hundred and thirty-two Chinese EFL learners who represented two English proficiency levels (intermediate vs. advanced) participated in the experiments, 72 for Experiment 1 and 60 for Experiment 2. Experiment 1 employed a written sentence completion task whereas Experiment 2 a spoken picture description task. The results show that structural priming did occur with both the prepositional dative (PD) and the double object dative (DO) constructions, and that the L2 learners, regardless of their language proficiency, were more likely to reuse a particular construction (PD/DO) in the target responses if it had been previously produced in the prime sentences. Moreover, the

magnitude of structural priming was found to be modulated by L2 proficiency. The advanced learners exhibited stronger priming effects for the DO construction than their intermediate counterparts. However, no evidence was obtained for the proficiency effect on the priming of the PD construction. Furthermore, the priming effects gave rise to between-verb variations. That is, verbs which are more strongly associated with a construction were more likely to be primed into the construction and resist the priming of the alternative construction. In addition, the results derived from Experiment 1 were basically consistent with those from Experiment 2, in spite of the employment of different tasks in the two experiments. This suggests that syntactic priming in L2 production is robust and reliable rather than task-specific. Of interest is that, compared with the sentence completion task, the priming effects in the picture description task were stronger.

Experiments 3 and 4 investigated the long-term effect of structural priming in L2 production by means of written sentence completion tasks. In the first part of each experiment, learners' experience of producing the PD and DO constructions was manipulated in ways that enabled them to produce a particular proportion of PD and DO constructions. Then the learners were given the opportunity to produce either the PD or DO construction without being provided with further primes. The experiments yielded four major findings. Firstly, syntactic priming in L2 production has produced a long-term effect. The L2 learners' experience of producing the DO construction earlier in the experiment increased the rates at which the construction was produced later in the experiment compared with the baseline condition. Nevertheless, there is a lack of evidence for the long-term priming effect on the production of the PD construction. Secondly, the long-term priming effect is modulated by the relative frequency with which each construction is produced earlier in the experiment. It

turned out that the experience strongly skewed towards the DO construction significantly increased the likelihood of producing the construction and at the same time suppressed the production of the competing PD construction. Thirdly, the frequency effect on the subsequent production of the dative constructions persists even across the changing tasks. Finally, the long-term effect is insusceptible to the temporary distribution of the tokens of each construction within the experiment.

The findings of the present study have empirically verified the occurrence of structural priming in L2 production and confirmed its potentially beneficial role in L2 learning of grammar constructions. More generally, the findings suggest that the implicit learning from usage accentuated by the usage-based theories is also operative in L2 acquisition.

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