

A Study on Argument Sharing
in Chinese Pivotal Constructions:
A Minimalist Approach

汉语兼语式中论元共享问题的
最简方案研究

— 袁 芳 著 —



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北 京

内 容 简 介

论元共享现象涉及句法与语义的接口,是语言研究的核心问题之一。本书通过分析汉语兼语式中的论元共享现象,并结合移位的拷贝理论,提出了论元共享问题的拷贝分析法。研究表明,语音界面与语义界面的不平衡性是造成论元共享现象的根源,论元共享问题的解决须从对拷贝的语义解读着手。拷贝分析法符合语言设计的经济原则,增强了原有理论与最简方案研究理念的兼容性,揭示了语言表达的经济性与充分性之间的矛盾这一驱动语言发展的普遍机制。

本书对语言研究者、教师及语言学爱好者具有参考价值。

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序

形式语言学发展到最简方案，迄今已有二十多年。与其之前的理论相比，虽然一些核心的原则与操作得以完善与发展，但句法与语义的互动始终是关注的主旋律之一。作为连接句法、语义的纽带，题元理论仍发挥着基础性作用。

然而，有一些特殊语言结构，一种形式表达多种意义，如例（1）和例（2）所示。这不仅违反题元准则，而且对句法、语义同构性（isomorphism）形成挑战，成为语言学研究的一个难题。

（1）John asked **Mary** to leave alone.

（2）领导让**张三**做报告。

在英语控制结构（1）和汉语兼语式（2）中，论元 *Mary* 和“张三”都同时承担了前、后两个动词指派的题元角色。这种情况下，题元准则是否依然有效？句法形式和语义内容之间的对应关系如何？这样的问题是研究所不能回避的。

如前所提，虽然原则与参数理论的一些核心内容（如题元理论、X-阶标理论、约束理论、格理论、界限理论）在最简方案框架下被重新阐释，但是制约句法、语义关系的基本原则没有动摇。袁芳所著《汉语兼语式中论元共享问题的最简方案研究》（以下简称《兼语式研究》），即立意于此。

《兼语式研究》从汉语兼语式这一特殊结构入手剖析论元共享问题的实质。兼具两种题元角色的论元违反形式与意义之间的一一对应原则，造成句法结构与语义内容之间的不同构现象，降低了语义向句法映射的透明

度。以往为解决此类“形、义错配”问题而提出的空成分 PRO，在理论及应用方面尚存不足。《兼语式研究》基于最简方案的理念，运用移位的拷贝理论（copy theory of movement），对论元共享问题提出新的解释，不仅挖掘出论元共享现象产生的根源，而且为解决该现象与题元准则之间的矛盾提供了最简分析。

具体而言，该专著第二章通过梳理学界对兼语式的研究，指出相关问题的症结；第三章评价控制理论和移位的控制理论，指出各自存在的不足之处。第四章，根据移位的拷贝理论，提出论元共享问题的解决方案。第五、六章则应用此解决方案，分析汉语兼语式、汉语连动式以及控制结构等一系列复杂谓语结构的论元共享问题。

拷贝分析法的优点，在于无需借助任何理论冗余概念，仅依据“内合并”这一句法生成机制来解决论元共享问题。由于所有参与操作的成分都来源于词库，该分析法符合包含性条件（inclusiveness condition）和非篡改条件（no-tampering condition）等语言设计的最简精神。此外，拷贝的动态生成和解读揭示了语言表达的充分性与经济性之间的竞争这一驱动语言发展的普遍机制，对研究语言的本质规律具有参考价值。

《兼语式研究》借鉴最简方案的最新理论成果，提出了独特的见解，具有一定的创新性。我对该作的学术价值十分肯定；当然，有必要从理论兼容性的角度权衡其理论修正的得失。学术研究崇尚思索，见仁见智，当由读者评说。

是为序。

温宾利

2017年4月

于广州白云山下

前 言

汉语兼语式中，兼语成分既做前动词的宾语，又做后动词的主语。该结构本质上反映了论元共享现象，即一个名词同时充当复杂谓语结构中前后两个动词的核心论元（内论元或外论元）。例如：在“张三请李四吃饭”中，“李四”既是前动词“请”的内论元，又是后动词“吃饭”的外论元。论元共享现象与题元准则规定的论元与题元角色的一一对应关系相矛盾，造成了论元共享问题。此问题不仅存在于汉语复杂谓语结构（例如：兼语式、连动式、复杂双宾结构等），还存在于英语的控制类不定式结构中。

为了解决不定式结构中的论元共享问题，生成语法学家在管辖与约束理论框架下提出了控制理论（其核心假设是空语类 PRO 可以在深层结构中承担不定式动词赋予的题元角色），并运用此理论分析控制类不定式、兼语式等复杂谓语结构中的论元共享问题。然而，控制理论存在诸多不足之处，在最简方案框架下已失去解释力。Hornstein（1999）提议用 NP 语迹取代 PRO，并据此提出了移位的控制理论。但是此理论没有考虑题元准则，因此无法从根本上解决论元共享问题。

为了在最简方案框架下更好地解决兼语式中的论元共享问题，本书在基于合并的单循环生成模式下提出“论元共享的拷贝理论”。此理论的核心假设是名词拷贝可以在语义界面承担题元角色。

具体而言，谓语动词必须以合并名词性成分的方式核查其选择性特征。为核查前动词的选择性特征，复制操作生成了多个名词性成分的拷贝，其中一个拷贝以内合并的方式满足前动词的选择性特征。由于题元赋值在语义界面进行，运算结果被提交到界面后，所有出现在题元位置的名词拷贝

都可以承担题元角色。然而，在语音界面，通常只有一个拷贝被拼读。语音界面与语义界面的不平衡性造成了论元共享现象。鉴于拷贝之间相互独立，它们完全可能在语义界面承担题元角色，从而维持题元准则所提出的一一对应关系。总之，假设共享论元（例如：李四）承担前动词（例如：请）赋予的受事题元角色，而后动词（例如：吃饭）的施事题元角色由一个无语音形式的名词拷贝承担，论元共享问题可以得到合理解决。

名词拷贝不仅可以承担题元角色，而且满足包含性条件和非篡改性条件，符合最简方案框架下语言设计的普遍原则。拷贝分析法不仅为论元共享问题提供了最简分析和动态解释，而且揭示了语言表达的经济性与充分性之间的竞争这一驱动语言发展的普遍规律。

本书首先在第一章以汉语兼语式为切入点介绍了什么是论元共享现象，然后陈述了解决论元共享问题的主要思想。第二章对兼语式的定义、范围及相关研究进行了梳理，同时指出有关争议的症结在于论元共享。第三章介绍了形式语言学研究论元共享问题的两大理论框架及其优劣。第四章根据最简方案精神系统阐述了本书的理论构想——论元共享的拷贝理论。在此基础上，第五章通过分析汉语兼语式的具体生成过程探讨了论元现象产生的根源，并应用拷贝的特性解释了论元共享问题如何得到解决。第六章进一步将论元共享的拷贝分析法推广至汉语连动式、复杂双宾结构以及控制结构等多种复杂谓语结构，以验证其普适性。

袁 芳

2017年7月

Foreword

The pivotal construction in Chinese represents a typical argument sharing phenomenon: One nominal phrase is construed as the core argument (i.e., the internal argument or the external argument) of two verbal phrases. For example, in the sentence *Zhang San qing Li Si chifan* 'Zhang San invites Li Si to dine', *Li Si* is simultaneously the internal argument of the first verb *qing* 'invite' and the external argument of the second verb *chifan* 'dine'. This phenomenon poses a challenge to the bi-uniqueness requirement of the Theta-Criterion, giving rise to the argument sharing problem.

To solve the argument sharing problem in control infinitives, an empty category, PRO, was posited within the framework of Government and Binding Theory (hereafter called GB). However, due to its theoretic and practical limitations, the PRO proposal faced many challenges in analyzing English control constructions, Chinese pivotal constructions, serial verb constructions, and complex double object constructions. Hornstein (1999) proposes replacing it with NP-trace and puts forward the Movement Theory of Control. Unfortunately, this theory fails to account for the argument sharing problem because it permits an A-chain with multiple theta-roles and dispenses with the Theta-Criterion.

In order to provide a better account of the argument sharing problem in pivotal constructions within the framework of Minimalist

Program (hereafter called MP), this book proposes the Copy Theory of Argument Sharing, which hinges upon the hypothesis that the daughter copy (i.e., the internally merged copy) of the shared argument (e.g., *Li Si* in the above example) can take a theta-role in the theta-position at the semantic interface.

More precisely, in the single cycle mode of derivation, the c-selectional features of the two verbs in the pivotal construction (e.g., the first verb *qing* 'invite' and second verb *chifan* 'dine' in the above example) must be valued by merging nominal elements. The shared argument is externally merged with the second verb to value one of its c-selectional features, and its daughter copy is internally merged with the first verb to value one of its c-selectional features. After the multiple copies of the shared argument are transferred, all of them can be interpreted at SEM for communicative efficiency. In the phonological component (PHON), however, only the highest copy is phonetically realized to comply with the economy principle. The asymmetry between the two interfaces gives rise to the argument sharing phenomenon. Thanks to the syntactic independency, the daughter copy of the shared argument can receive a theta-role as long as it is merged in the theta-position at SEM. This suggests a solution to the argument sharing problem: the bi-uniqueness requirement of the Theta-Criterion can be satisfied if the mother copy of the shared argument (i.e., the externally merged copy) is theta-marked by the second verb, whereas its daughter copy is theta-marked by the first verb.

The Copy Theory of Argument Sharing provides a derivational account of the argument sharing problem in pivotal constructions and other complex predicate constructions (e.g., control infinitives, Chinese serial verb constructions and complex double object constructions). It



reveals that argument sharing is yielded by the conflict between economy and accuracy of human language (MacWhiney, Malchukov, Moravcsik, 2014). Additionally, with the elimination of the theory-internal stipulations such as PRO, traces, and chains, this theory satisfies the general principles of language design (e.g., Inclusiveness Condition and No-tampering Condition), offering a case of what the minimalism strives for.

This book is organized as follows. Chapter One is a brief introduction to this book. Chapter Two provides a general introduction to Pivotal Constructions (hereafter called PCs), with the focus on the argument sharing problem in PCs. Chapter Three introduces two approaches to the argument sharing problem in formal linguistics—the Control Theory and the Movement Theory of Control. In order to provide a good account of the argument sharing problem in PCs within the framework of MP, Chapter Four puts forward the Copy Theory of Argument Sharing, which reveals the factor underlying the argument sharing phenomenon and suggests a solution to the argument sharing problem. Chapter Five applies the Copy Theory of Argument Sharing to the analysis of the PCs. The derivation and interpretation of PCs are discussed in this chapter, with special attention given to the solution to the argument sharing problem. Chapter Six extends the Copy Theory of Argument Sharing to the analyses of the argument sharing problem in other complex predicate constructions such as Serial Verb Constructions (SVCs) and Complex Double Object Constructions (CDOCs) in Chinese, and control constructions in other languages.

List of Abbreviations

arb. PRO	arbitrarily controlled PRO
CDOC	complex double object construction
CI	conceptual-intentional
CTAS	copy theory of argument sharing
CSVCC	complex sentence with a verbal complement clause
DO	direct object
DP	determiner phrase
DOC	double object construction
EA	external argument
ECM	exceptional-case marking
EF	edge feature
EM	external merge
EPP	extended projection principle
FI	full interpretation
FL	faculty of language
GB	the government and binding theory
GC	governing category
IA	internal argument
IM	internal merge
IO	indirect object
LA	lexical array

LEX	lexicon
LI	lexical item
MLC	minimal link condition
MDP	minimal distance principle
MP	minimalist program
MTC	movement theory of control
NOC PRO	nonobligatory control
N.S.	narrow syntax
NTC	no-tampering condition
OC PRO	obligatory control
PC	pivotal construction
PHON	phonological component
PIAH	the predicate-internal argument hypothesis
PIC	the phase impenetrability condition
SEM	semantic component
SLQZ	San Lucas Quiaviní Zapotec
SM	sensorimotor
SMT	strong minimalist thesis
SVC	serial verb construction
UTAH	uniform theta assignment hypothesis

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Chapter One

Introduction

This chapter provides a brief introduction to this book. It includes two parts: the preliminaries in Section 1.1, and the main ideas of this book in Section 1.2.

1.1 Preliminaries

In natural languages, there are verb-clausal complement constructions such as infinitive constructions, serial verb constructions, Chinese pivotal constructions and complex double object constructions. These complex predicate constructions permit more than one verb in a mono-clause without any marker of subordination or coordination in the form of $NP_1+VP_1+NP_2+VP_2$ (Amberber, Baker & Harvey, 2010).^① One aspect of these constructions that draws generative linguists' attention is the

① Amberber *et al.* (2010) propose that complex predicate constructions are multi-predicational, but monoclausal. This type of constructions is instantiated in a number of structures: periphrastic causatives (*Mary made him go to the shop*), verb particle combinations (*the child picked it up*), resultatives (*they hammered the iron flat*), *consider* + predicate combinations (*she considers him (to be) intelligent*), restructuring constructions/or clause union constructions (typical of infinitive constructions in Romance), serial verb constructions, V-V compounds, and so forth. The matrix subject NP_1 and the pivot NP_2 in these constructions are usually realized by determiner phrases (hereinafter called DPs). For expository convenience, I use NP_1 to refer to DPs that occupies the matrix subject position and NP_2 to the ones in the pivot position.

theta-role realization of NP₂, which is typically demonstrated in the pivotal construction in Chinese (hereinafter called PC),^① as shown in (1).

(1) NP₁ VP₁ NP₂ VP₂

Wo jiao ta bie xie zhe zhong wenzhang.

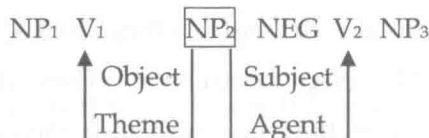
I ask he not write this CL article

'I asked him not to write this kind of articles.'

(Ding, Lü & Li, 1961: 118, my trans.)

Sentence (1) consists of two verbs, the first verb (V₁) *jiao* 'ask' and the second verb (V₂) *xie* 'write'. As both the object of V₁ and the subject of V₂, the NP₂ *ta* 'he' simultaneously takes the Theme role of V₁ and the Agent role of V₂ (hence the name *jianyu* 'bi-functional constituent' in traditional Chinese grammar), as illustrated in (2).

(2) Wo jiao ta bie xie zhe zhong wenzhang.



Since the function of NP₂ resembles a pivot, Li and Thompson (1981/1989) call it the pivot noun phrase and name sentences like (2) pivotal constructions. The ambiguous grammatical function of NP₂ has not been unitarily accounted for in traditional Chinese grammar. The main bone of contention is whether NP₂ should be treated as the object of

^① This construction is proposed as *jianyushi* 'the construction with a bi-functional constituent' by the Chinese Academy of Social Sciences (Ding, Lü & Li, 1961). Li and Thompson (1981/1989) coin the English term 'pivotal construction' for it but treat it as a subcategory of serial verb constructions in Mandarin Chinese. In this book, the term 'pivotal construction' especially refers to the sentences like (1).