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**Studies in Chinese and
Sino-Tibetan Linguistics:
Dialect, Phonology, Transcription and Text**

**漢語與漢藏語研究：
方言、音韻與文獻**

Edited by

Richard VanNess Simmons and Newell Ann Van Auken

史皓元 方妮安／編輯

Institute of Linguistics, Academia Sinica, Taipei, Taiwan

中央研究院 語言學研究所

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W. South Coblin

*This volume is dedicated to Professor W. South Coblin,
scholar, teacher, mentor, and friend
in honor of his seventieth birthday.*

賢師益友 學林泰斗

柯蔚南教授七十榮壽獻禮

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Introduction

Richard VanNess Simmons and Newell Ann Van Auken

This volume has been compiled as a tribute to a scholar who has devoted his prodigiously productive career to the study of Chinese and Sino-Tibetan linguistics: W. South Coblin. To honor this man whose depth and range of scholarly interests and accomplishments are nothing short of awe-inspiring, and whose influence on the field is broad and powerful, on the occasion of his seventieth birthday we have gathered together a collection of studies that speak to those interests in various ways and that also provide new and diverse contributions to the field.

South Coblin (known in Chinese as Kē Wèinán 柯蔚南) has exerted a profound impact on the field of Chinese and Sino-Tibetan linguistics as a researcher, teacher, mentor, and colleague. His career thus far has spanned over four decades, and his research has touched upon areas as varied as Sino-Tibetan comparative and historical linguistics, Chinese historical phonology, Chinese historical and comparative dialectology, Classical Chinese grammar, Old Tibetan, the language of early Chinese vernacular texts, the history and development of Chinese koinés and pre-modern Mandarin, Chinese transcriptions in 'Phags-pa script, and most recently, in Korean. He has written groundbreaking and seminal studies in all of these fields, and many of his published works have become essential references. At present writing, he is author of eleven monographs and over eighty articles and book chapters, and these numbers will surely continue to grow. After this introduction appears a brief biography that gives an overview of South Coblin's scholarly career and traces the trajectory of development of his many and various interests and projects, and this in turn is followed by a complete bibliography of his publications to date.

Among the twenty-three contributors to this volume are South Coblin's graduate school classmates, colleagues and peers in the field, and students and others he has mentored. In gathering the papers we endeavored to assemble a selection of research that reflects the diversity of South's scholarship and that engages with his scholarly interests. The resulting compilation comprises twenty-two papers, which have been arranged topically into five sections: Chinese historical linguistics, Chinese dialects, Tibetan and Tibeto-Burman, language contact and transcription, and texts and written Chinese. Each section corresponds to an area in which South Coblin himself has engaged in research, and thus the collection as a whole reflects the breadth of his scholarship.

Many papers are at the forefront of their respective fields, and build on South's earlier work to arrive at significant new conclusions.

The opening section of this volume, "Chinese Historical Linguistics," represents the area in which South Coblin began his scholarly career, and the first paper was written by the late Professor Jerry Norman, the scholar who perhaps had the deepest influence on his scholarly work. Norman's "A Model for Chinese Dialect Evolution" is a distillation of ideas he developed over the years, many in conversations with South, and provides an alternative model for the comparative study of Chinese dialects, a model that we anticipate will ultimately supersede and replace the conventional approach of relying primarily on the phonological categories of the *Qièyùn* 切韻. Norman outlines two historical stages of Chinese, Common Dialectal Chinese (CDC) and Early Chinese (EC), which he developed using a strictly comparative approach based entirely on observable and documented dialect data. In his paper, he deliberately eschews the incorporation of distinctions supported only by written evidence, which might be artifacts of the literary tradition, and without basis in the actual spoken dialects. He intended that CDC and EC would provide an objectively realistic framework for understanding Chinese linguistic evolution and the phonological development of the Chinese dialects, one from which the modern dialectal forms of Chinese could be easily and naturally derived. Jerry Norman had discussed many of the details of this work with South Coblin, and thus decided to contribute it to this volume as a tribute to his close friend. He sent the final version to the editors just twelve days before his death on July 7, 2012.

The next two papers in this section address other aspects of Chinese language history. Ho Dah-an's study, "Phonological Problems in Imperial Naming Taboos" (史諱中的音韻問題) presents an examination of Chén Yuán's 陳垣 1928 *Examples of Imperial Naming Taboos* 史諱舉例 and, following a brief critique, explores the issue of taboo names and their relationship to Chinese phonological history. Ho's discussion underscores the importance of historical phonology in any examination of issues bearing on Chinese linguistic history. Through a demonstration of the ways in which changes in the language affect the particularities of which graphs were taboo at different periods, Ho shows that once we obtain a clear understanding of the pertinent phonological issues, we may find that ostensible errors or exceptions to expected practice were not in fact departures from regular convention. Ting Pang-Hsin's contribution, "A Comparative Study of Frequently Used Action Verbs in Hàn and Táng-Sòng Times" (漢與唐宋兩代若干常用動作動詞的比較), seeks clues to trends in Chinese lexical change through an examination of frequently used action verbs in Hàn times, as glossed in Xǔ Shèn's 許慎 *Shuōwén jiězì* 說文解字, and through comparison of the Hàn vocabulary with the Táng-Sòng lexicon as recorded in the complete editions of Wáng Rénxù's 王仁昫 *Kānmiù*

bǔquē Qièyùn 刊謬補缺切韻 and the *Guǎngyùn* 廣韻. Ting concludes that overall, the Chinese lexicon shows a strong trend toward continuity, and consequently was only minimally influenced by other neighboring language families.

The second section, “Chinese Dialects,” comprises five essays that explore Chinese dialects from historical and descriptive perspectives. The first three papers examine various issues related to initials in dialect phonology. William H. Baxter’s “Northern Mǐn ‘Softened’ Initials in Borrowed Vocabulary” presents evidence for early Mandarin influence on southern dialects, arguing that the softened initials in the Northern Mǐn dialects have two origins. One appears in a set of words native to the dialects and originating very early therein; the other occurs in a set of words forming a borrowed literary stratum that the author’s analysis shows entered the Mǐn dialects from an early form of Mandarin. This early form of Mandarin would have been a southern type that retained the voiced obstruents of Middle Chinese. The second paper, by Zhongmin Chen, “On the Relationship between Tones and Initials of the Dialects in the Shànghǎi Area,” analyzes the correlation between tones and initials in the Shànghǎi region dialects. Chen first looks at the general relationship between tones and various types of initials, and then proceeds to examine a specific set of issues regarding the nature of voiceless stops followed by vowels with breathy phonation. These issues include the relationship between stops and tones, the influence of aspirated stops on tones, and the nature and distribution of pre-glottalized stops. Chen demonstrates that aspiration is a factor in the split of tone categories into different tone values and in the development of new tone categories owing to the influence of the initial type. The evolution of initials is also the subject of the next paper, “A Study of Diachronic Evolution and Age Variation in the Three Initials Groups of *Zhī*, *Zhuāng* and *Zhāng* in Nánjīng Dialect” (南京方言知莊章三組歷時演變與年齡差異研究), by Gù Qián 顧黔 and Zhāng Zhīlíng 張志凌. Gù and Zhāng examine the distribution in Nánjīng dialect of retroflex affricate initials [ʈʂ, ʈʂh, ʂ] and dental sibilant initials [ts, tsh, s] that reflect the three *Qièyùn* initial groups identified in the title. They conclude that variation in the distribution of the two groups of initials correlates to speaker age. Their paper explores the reasons for this age variation and investigates the course and diachronic direction of the evolution of the differing distribution of these groups of initials.

The final two articles of this section examine dialect phonologies from a broader perspective. Chāng Méixiāng’s 昌梅香 contribution, “A Homophone Syllabary of the Yúnlóu Dialect in Jí’ān County, Jiāngxī Province” (江西吉安縣雲樓方言同音字彙) presents primary dialect data. Her report describes the phonological system of the dialect spoken in Yúnlóu 雲樓 in Jí’ān County, Jiāngxī and provides an extensive syllabary of homophonous morphemes. Chāng was a recent visiting scholar at the University of

Iowa, and during extensive discussions with South Coblin about this dialect material, he encouraged her to make data set available for scholarly reference. The last paper of the section investigates a dialect data source that dates back to the Qīng period. In “A Comparative Look at Common Southern Jiāng-Huái and the Southern Mandarin Influences in Hé Xuān’s *Yùnnshǐ*,” Richard VanNess Simmons examines the phonology presented in the *Yùnnshǐ* 韻史 (*History of Rimes*) compiled by Hé Xuān 何萱 (1774-1841). Hé Xuān, a native of Tàixīng 泰興 and Rúgāo 如皋 Counties in Jiāngsū 江蘇, revised the traditional *Qièyùn* system of initials to accord more closely with the dialects of his native place. Hé developed a simplified system of 21 initials that do indeed match those of the Tàixīng and Rúgāo dialects. But Simmons finds that the *Yùnnshǐ* also clearly evidences additional influence from the literary tradition and from nearby prestige Guānhuà 官話 dialects, with the result that its tonal system only partially reflects the local dialect phonology of Rúgāo and Tàixīng.

The third section in this collection comprises research concerning “Tibetan and Tibeto-Burman.” The first three papers reflect South Coblin’s impact in this field by exploring and refining some of his foundational contributions. Guillaume Jacques’ contribution, “On Coblin’s Law,” examines the empirical basis of Coblin’s law, which has become a key phonetic law in Tibetan historical phonology. Jacques notes that while this law was originally devised to explain alternations in the verbal system, its range of application is broader, and can be observed in the nominal system as well. Additionally, his paper proposes an extension of this law, namely *sNC- > sC-. Nathan W. Hill’s “Tibeto-Burman *dz- > Tibetan z- and Related Proposals” offers an adjustment to the sound laws proposed in Coblin 1976. Hill presents evidence for the changes *dz > z and *j > ẓ and the other origins of ẓ, specifically *lj and *rj, and endeavors to establish the relative chronology of those changes. Laurent Sagart’s “A Note on Tibeto-Burman Bone Words and Chinese Pitch-pipes” also develops an issue inspired by a word treated by South Coblin (Coblin 1986). Exploring Tibetan *gra* ‘fish bones’ and *rus* ‘bone’, Sagart proposes an explanation to the observation that the Chinese names for odd- and even-numbered pitch-pipes exhibit sound correspondences with related terms in Sino-Tibetan languages.

The subsequent two papers focus on issues in modern Tibeto-Burman linguistics. James Matisoff’s “Using Native Lexical Resources to Create Technical Neologisms for Minority Languages” departs from a historical focus and offers an investigation of practical applicability to living languages. Matisoff examines the issues and challenges entailed in the creation of technical linguistic terminology for Lahu, a language that lacks a technical vocabulary with which to discuss scientific subjects such as linguistics. The hope is to obviate the need for Lahu speakers to resort to borrowing technical

terminology from other, majority languages. Jackson T.-S. Sun, in “Typology of Generic-Person Marking in Tshobdun Rgyalrong,” focuses on expressions that languages use to refer to the generic person (GP), or ‘people in general’. His paper investigates GP-representation in Tshobdun Rgyalrong, a morphologically complex Sino-Tibetan language spoken in Sichuan, approaching the issue from a typological perspective. Sun shows that Tshobdun marks GP with an unusual encoding device, namely, dedicated verbal morphology that evolved from erstwhile nominalizers, and he proposes that the integration of the generic person into the inflectional person category as a ‘fourth person’ reveals the salience of humanness marking in Rgyalrong grammar.

The fourth section of the volume, entitled “Language Contact and Transcription,” contains essays that examine aspects of the interaction between Chinese and other languages. The first three papers treat transcriptional evidence, which has played a prominent role in South Coblin’s scholarship; that is, they deal with the use of non-Chinese phonetic scripts to record Chinese words and phrases or the transcription of foreign words using Chinese characters. This section begins with Axel Schuessler’s “Phonological Notes on Hàn Period Transcriptions of Foreign Names and Words.” Schuessler examines a corpus of Hàn time transcriptions of Central Asian and Indic terms into Chinese, identifying the phonological patterns revealed by the transcriptional choices and exploring what they reveal about the Chinese language of the time, and about the foreign languages they transcribe. To this paper is appended an extensive dataset that collects transcriptions of Central Asian and Indic names from pre-Hàn, Former (Western) Hàn, and Later (Eastern) Hàn Chinese textual sources. The second paper, Zev Handel’s “Why did Sin Sukju Transcribe the Coda of the *Yào* 藥 Rime of 15th Century Guānhuà with the letter *ᄃ* <ɸ>?” addresses Sin Sukju’s 申叔舟 transcriptions of Mandarin into Korean in the *Saseong tonggo* 四聲通解, a Korean rimebook of Chinese that has also been of great use to South Coblin in his work on the history of Guānhuà. Handel focuses on the transcription of Chinese entering-tone syllables, most of which were transcribed with a final glottal stop. Handel seeks to account for the previously unexplained transcription of a subset of syllables (those in the *Yào* 藥 rime) with the Hangul letter for <ɸ>. He proposes that the transcriptions in fact represented a single Mandarin sound with two different graphs, and that this was the result of the orthographic structure of Hangul, and not of a phonological distinction in Mandarin. The following paper treats transcriptional materials that yield new insights into a yet earlier stage of Mandarin. In “The *Chē-Zhē* syllables of Old Mandarin,” Zhongwei Shen draws on evidence from ancient Altaic scripts, including ḥP’ags-pa (‘Phags-pa), Jurchen, and Khitan materials, to demonstrate that although the earliest Chinese rimebook to treat *je* and *ye* type finals as an independent rime, *chē-zhē* 車遮, was the *Zhōngyuán yīnyùn* 中原音韻 of 1324, transcriptional evidence reveals that this type of syllable existed earlier,

by the Khitan Liáo 遼 dynasty (916-1125). Shen proposes that the vowel system represented by these finals was maintained until the nineteenth century, when a new final -ɾ became distinctive in coda-less syllables, as part of the transformation from Old Mandarin to modern Mandarin.

Following are two papers that treat the interaction between Chinese and Western languages. Lǚ Guóyáo 魯國堯 contributed a pair of notes entitled “Trivial Musings from Dull Lǚ’s Cottage Study” (愚魯廬學思脞錄二則). Lǚ is well-known for his work in the history of Mandarin, an interest he shares with South Coblin. But in this whimsical pair of notes he ventures off in new directions. The first note is a commentary on an essay by Qián Zhōngshū 錢鍾書 (1910-1998) focusing on late Qīng English to Chinese translation, and the second concerns Chinese nomenclature pertaining to binomes, that is, simple (non-compound) bisyllabic words, which in Chinese are conventionally divided into three separate categories. Lǚ proposes a single Chinese term (*yīn’ōu* 音耦) that would encompass all three types. This section concludes with a paper by Joseph A. Levi, who together with South Coblin co-authored *Franciso Varo’s Glossary of the Mandarin Language*. Levi addresses a different aspect of early missionary dictionaries of Chinese in his paper, “The Ricci-Ruggieri *Dicionário Europeu-Chinês*: Linguistic and Philological Notes on Some Portuguese and Italian Entries.” The *Dicionário* was the first bilingual dictionary composed by and for European missionaries to assist them in learning Chinese. Rather than focusing on Chinese, Levi explores the *Dicionário* as a source for understanding the evolution of Portuguese and, to a lesser extent, Italian, through a series of notes on various linguistic and philological points.

The final section, “Texts and Written Chinese”, brings together four papers that explore various aspects of written texts and individual graphs or words. The first two concern the Chinese writing system and examine issues regarding the interpretation of individual characters. In “Two Competing Interpretations: *Cóng* 从 or *Bì* 比 in Oracle-Bone Inscriptions,” Ken-ichi Takashima explores the graphic ambivalence between the oracle bone graphs conventionally transcribed as *bì* 比 ‘side by side’ and *cóng* 从 ‘to follow’. He revisits earlier claims concerning the form and meaning of these graphs, and draws on both palaeographic and philological evidence to support his conclusion that these OBI forms all may be understood as *cóng* 从. The next piece, by David Prager Branner, “The Lingering Puzzle of *Yán* 焉: A Problem of Oral Language in the Chinese Reading Tradition,” examines the origins of the graph 焉, long thought to represent a contraction of *yú* 於 plus another unknown element, meaning “at this [place].” Branner argues that the character 焉 is a “portmanteau” character, or a semantic ligature of two graphs equivalent to modern 於+是, but that it is far from certain that it represents a spoken contraction. The essay by Morten Schlütter, “Textual Criticism and

the Turbulent Life of the *Platform Sūtra*,” explores the textual history of the *Platform Sūtra*, and proposes a new understanding of the stemmatic relationships among multiple distinct versions that span over five centuries. Schlütter assembles detailed evidence concerning these versions of the *Platform Sūtra*, to which he applies the methodology of textual criticism, demonstrating among other things that what he refers to as the “longer version” of the *Platform Sūtra*, which was both the orthodox and most popular version, was actually a later version of the text. This paper is an elegant demonstration of the ways in which textual criticism can lead us to revise our understanding of the relationships among texts, and more broadly, of the history of ideas or religious developments. The final paper in this section, “*Spring and Autumn* Use of *Jí* 及 and its Interpretation in the *Gōngyáng* and *Gǔliáng* Commentaries” by Newell Ann Van Auken, analyzes usage of the word *jí* 及, which functions as a comitative marker ‘and, with’ in the *Spring and Autumn* (*Chūnqiū* 春秋), and proposes that some *Gōngyáng* 公羊 and *Gǔliáng* 穀梁 readings of *jí* resulted from the fact that the commentators understood *jí* in a different way, as a full verb. Common wisdom tells us that grammatical particles such as the comitative marker *jí* are derived from full verbs, and thus it is unexpected to find the same word as a particle in an earlier text and a full verb in a later one; Van Auken ascribes this apparent discrepancy to dialect differences, and explains this unusual situation by proposing that the language of the *Spring and Autumn* was probably not ancestral to that of either *Gōngyáng* or *Gǔliáng*.

* * *

We owe a debt of gratitude to many friends and colleagues who have supported us in this tribute to South Coblin, and most of all, to the contributors to this volume. Two in particular deserve special acknowledgment, the late Jerry L. Norman, who gave us initial encouragement, pronouncing this endeavor “a splendid ideal!” and Axel Schuessler, who has provided unfailing and enthusiastic support at every step as we have prepared this volume. Other contributors who have provided additional assistance in various ways include (in alphabetical order) David Branner, Zev Handel, Nathan Hill, Ho Dah-an, Jackson T.-S. Sun, Morten Schlütter, and Zhongwei Shen.

We would also like to express our deep appreciation to the editorial staff of *Language and Linguistics* at the Institute of Linguistics, Academia Sinica. The former Executive Editor, Dr. Elizabeth Zeitoun, took on primary responsibility for managing the onerous editorial labor, tirelessly continuing her hard work even after her term as Executive Editor of *Language and Linguistics* had officially ended. Special thanks are due also to Kuo Chun-yu (Joyce) for her meticulous and patient work in copy-editing and typesetting

this volume. Dr. Wu Rui-wen at the Institute of Linguistics has likewise gone out of his way to provide assistance and support. We also thank Lin Chih-hsien, Lin Hsiu-lien, Chuang Ya-ying, Chen Yu-kuan (Vicky), and others for their help. We are grateful to the anonymous reviewers of each paper for their assistance and insightful comments.

The Norman family warrants our special thanks for working with us in preparing Jerry Norman's paper for this publication, and for their continued support, even as they were grieving the loss of their husband and father. Jing Coblin kindly provided the photograph of her husband, which appears as the frontispiece, and gave us warm, enthusiastic, and helpful encouragement from the outset. Russ Ganim provided helpful advice as we began this project, and Eden Lunde assisted with numerous proof-reading tasks. Zhāng Yànhóng assisted with translations of a number of abstracts. Matthias Richter, Brandon Dotson, Steve Wadley, and Young Oh, together with a number of our contributors, provided help with the cover images, and Oliver Emery assisted with the cover design.

Finally and most importantly, we join with our contributors in thanking our honoree, W. South Coblin, for teaching us all so much, whether directly in the classroom and conversations, or indirectly through his research and publications, and for thereby inspiring the research contained in this volume.

W. South Coblin: A Scholar's Journey*

Newell Ann Van Auken

Weldon South Coblin, affectionately known to friends and family as South, was born on February 26, 1944 in Lexington, Kentucky, where he lived until his graduation from Henry Clay High School in 1962. His interest in languages and language history was already apparent in high school, where he studied Latin, Greek, and German. His Latin teacher, Miss Mary Wood Brown, was the first to expose him to the notion of linguistic change. He recalls that one day he was complaining about having to learn Latin declensions, and Miss Brown explained that English had also had similar linguistic phenomena at one time, and she showed him a book with earlier forms of English in it. South was astounded to learn that English had once been different, and this was the beginning of his lifelong fascination with the history of language and linguistic change.

South first went abroad the summer after his graduation from high school. He traveled to Germany on a program overseen by the University of Louisville, which involved homestay and taking classes. He was particularly intrigued by the English class for German students. The teacher, Herr Heinemann, had studied Old English, and frequently drew his students' attention to the parallels between German and English irregular verbs. Again, South found himself fascinated by the notion of language change. After the conclusion of the program in Germany, he traveled to England, where he purchased books and grammars on Anglo-Saxon and earlier stages of English. He also retained his interest in the German language, and later returned to study in Germany the summer after his freshman year of college.

* This biography is based on notes taken during two visits I made to South at his home in Coralville, Iowa, on Sunday afternoon, July 21 and Monday morning, July 22, 2013. Although South knew I was interviewing him for a biography, at the time he was unaware of the ultimate venue. In the concluding section, I also draw on material that South presented in the final two meetings of his Chinese Historical Phonology course on Wednesday, May 4, 2011 and Friday, May 6, 2011. These were the last formal classes that he taught at the University of Iowa. When this project was conceived, we invited Professor Jerry Norman to write this piece. After Prof. Norman's death on July 7, 2012, his family found the beginning of a draft on his computer, and I have incorporated his brief draft into this piece, as well as thoughts by Professor Axel Schuessler. I am grateful to my co-editor Richard VanNess Simmons and other friends for helpful suggestions and comments.

In fall 1962, South began his undergraduate studies in Ohio at Kenyon College, which awarded him a full scholarship. He immediately declared a major in German, and he also began to study Russian. He was strongly encouraged to take courses in literature, but his interests in language history and grammar did not receive similar encouragement. He recalled that a professor who studied the history of the Russian language was denied tenure because his area of study was not viewed as a “respectable” subject for an academic. “This is a battle I’ve fought all my life,” he said, and thus, “I have always remembered this.”

Beginning study of Chinese

In the spring of South’s sophomore year, his advisor at Kenyon encouraged him to apply for the Princeton Critical Language Program. This program provided students from other colleges with a full scholarship to spend two years studying a critical language, the first year at Princeton, and the second year abroad. Students also took other courses at Princeton, and received full credit from their home institution. After the conclusion of the program, students were to return to their home institution to complete their senior year and graduate. South considered the full range of options, and determined that the best two languages would be Arabic or Chinese, each the vehicle of classical culture in its respective region of the world, Arabic in the Middle East and Chinese in the Far East. Unable to make up his mind, he flipped a coin, and Chinese won.

South began his study of Chinese in the summer of 1964 with classes at Harvard, under the auspices of the Princeton Critical Language Program. His first impression of Chinese was that it was an extraordinarily strange language, in part because of the tones and even more, because of the apical vowels. His studies at Princeton began in the fall. In addition to language courses, he also took classes in Chinese philosophy and history, plus other coursework required by his home institution. Thus he also took a course in Old and Middle High German literature, which he loved. On the recommendation of his Kenyon advisor, he enrolled in a course in descriptive linguistics, which his advisor told him would “stand you in good stead when you teach German.” Initially he was unsure about the class, but by the second part of the semester he caught on and found that he really loved it. He went on to take the second course in the sequence, a course in historical linguistics taught by Albert Marckwardt, who specialized in the history of the English language.

In the second semester, he was required to complete a seminar and project. Upon hearing that South was interested in historical linguistics, his advisor at Princeton, Yu-Kung Kao, assigned him to read Dǒng Tóngxié’s 董同龢 *Zhōngguó yǔyīn shǐ* 中國語音

史 [*History of Chinese Phonology*]. South had not yet completed his second year of Chinese, and of course found this unbelievably difficult. His teacher soon realized that this was too hard and assigned him to read Bernhard Karlgren's *Compendium of Phonetics in Ancient and Archaic Chinese* instead. The following summer, still at Princeton, he began to study Classical Chinese with Miss Li Ch'i.

During the second year of the Princeton Critical Language Program, South spent a full year in Taiwan, at what was then known as the Stanford Center, the best place in the world to study Chinese in those days. He had room in his schedule for an advanced independent study, and elected to give Dǒng Tónghé another try. His independent study teacher had taken the course at National Taiwan University that used Dǒng's book, and South worked through it in great detail with her. She also sent him out to purchase copies of rimebooks and rime tables, and he thus became familiar with all the basic texts necessary for the study of Chinese historical phonology. He then worked through the Chinese translation of Karlgren's *Études sur la phonologie chinoise*, *Zhōngguó yīnyùn xué yánjiù* 中國音韻學研究, translated by Y. R. Chao (Zhào Yuánrèn 趙元任), F. K. Li (Lǐ Fāngguì 李方桂), and Lo Ch'ang-p'ei (Luó Chángpéi 羅常培).

In the spring of 1962, in preparation for his return to Kenyon for his senior year, South wrote to his advisor to plan his courses for the fall. He had been in touch with faculty at Ohio State, and was prepared to buy a car and drive to Columbus (a long, difficult drive in the winter) to continue his study of Chinese, but it soon became apparent that he would not be able to continue with Chinese if he returned to Kenyon. He thus began writing to colleges around the United States with the hope of finding a program that would allow him to continue his study of Chinese and to graduate within a year. One of the few institutions that would allow this was the University of Washington (UW) in Seattle. He thus decided to relinquish his full scholarship at Kenyon, and moved to Seattle, where he lived on a shoestring and completed his final undergraduate year.

During South's senior year, also his first at UW-Seattle, Prof. F. K. Li was his advisor. He also studied Classical Chinese with Paul L-M. Serruys, C.I.C.M. He recalls that he fought all year long with Fr. Serruys, and they argued about many different points. At the end of the year he went to Stanford on a summer grant to study Japanese. He spent all his free time at the library finding exceptions to points that Serruys had made, and compiled a great list of them. In the fall, he went back and showed them to Serruys, expecting another argument, but instead Serruys was encouraging and positive, and responded, "That's interesting. You should do an independent study with me on that." After that, South audited Beginning Classical Chinese regularly, since Serruys covered different material every year.

Graduate career at the University of Washington

South began his doctoral studies at the University of Washington in the fall of 1967, and for the first four years was supported by a National Defense Foreign Language (NDFL) Fellowship. South has often described his years in graduate school at UW as “paradise.” His classmates included the late Gil Mattos, as well as Ken-ichi Takashima and Ting Pang-Hsin. South recalls that even if only a few students were officially enrolled, everyone audited and attended the seminars, and then after class was over students would adjourn to the HUB (Husky Union Building) or a tavern to keep discussing the material. His intellectual and social life centered on his studies and his classmates. It was an extremely happy and intellectually rich time in his life.

While South was still a senior at the University of Washington, Prof. Li insisted that he take Literary (Classical) Tibetan. Initially, South had no strong interest in Classical Tibetan, and was secretly pleased when he discovered that there was a schedule conflict. Yet Prof. Li responded by telling him that he’d simply have to take modern Tibetan instead. Thus he took modern Tibetan for four quarters. South observed that once one starts actually working on a language, it then becomes interesting. So, quite naturally, he gradually became interested in Tibetan. His Modern Tibetan teacher was Ngawang Nornang, whom they called by his Tibetan title Geshela (Dgebsheslags). In South’s first year of graduate school he began his study of Classical Tibetan. He studied Tibetan with Terry (Turrell) Wylie, founder of the Tibetan program at UW-Seattle, and with Margaret Lu.

In graduate school, Prof. Li was his advisor until his retirement in 1969, after which Serruys became his advisor. As did all doctoral students at UW, South took a series of PhD qualifying field exams. He prepared a field in historical phonology with F. K. Li, conducted a comparison of *hapax legomena* in the *Tàixuán jīng* 太玄經 and their relation to Yáng Xióng’s 揚雄 *Fāngyán* 方言 under the supervision of Hellmut Wilhelm, and he also worked on a Tibetan medical text from Dūnhuáng 敦煌 with Wylie.¹ South recalls that during his oral exams, Serruys (as per his usual custom) gave South a very hard time; as South said, “an exam was an exam and you were examined!” Li Fang-kui was retired by then and Jerry Norman sat in on the oral exam in his stead.

Jerry Norman had arrived in Seattle at the beginning of January in 1972. He and South hit it off immediately, and this was the beginning of a close friendship that continued until Prof. Norman’s death in July 2012. In Prof. Norman’s own words,

¹ In 1990, his translation was published as “A Reexamination of the Second Edict of *Khri-srong-lde-btsan*” in a memorial volume for Wylie, *Reflections on Tibetan Culture: Essays in Memory of Turrell V. Wylie*. For full bibliographic information here and throughout, please refer to the bibliography that follows this piece.

I first met South Coblin right after arriving at the University of Washington in 1972. He was finishing up his dissertation on the Ēryǎ 爾雅 under the guidance of the late Professor Paul Serruys. Since my field was Chinese linguistics I was asked to fill in as one of the members of the reading and examination committee. In reading his work, I was profoundly impressed by the meticulous care with which every claim was supported. It goes without saying that he passed the examination with laurels. The following year he remained in the Department of Asian Languages and Literature as an instructor in Modern Chinese. It must have been at that time that we became more intimately acquainted. At any rate, when he moved to the University of Iowa where he subsequently spent a very productive career, we began a correspondence that has continued down to the present day. Because of our common interest in the history of Chinese phonology, most of our communications have been on that topic. South became an important sounding board for most of my ideas; he more than once encouraged me to continue lines of thought that I might otherwise have abandoned.

South met his wife-to-be, Dai Jing-hwei, for the first time at a Chinese New Year's party in 1968 in Seattle. At the time, Jing was also a graduate student in the same program, and in fall 1968 they sat next to each other in Serruys's Classical Chinese. They were married in Seattle in 1970, and the following year went to Taiwan to visit Jing's hometown of Tou-liu 斗六. They now have two sons and three grandsons.

After four years of coursework, South spent his fifth year completing his dissertation, "An Introductory Study of Textual and Linguistic Problems in *Erh-Ya*," under the supervision of Serruys. During that year, he and Jing worked under Serruys as research assistants to help him with a book on bronze inscriptions (sadly, the book was never completed, as Serruys turned his focus to OBI and set aside the bronze project). South defended his dissertation at the end of 1972, and was hired by UW to stay for a year (1972-1973) as a post-doctoral instructor. He taught first- and second-year Chinese, and then over the summer he taught third-year Chinese. In 1973 he left Seattle and moved to Iowa City to take a position at the University of Iowa, where he remained until his retirement in May of 2011.

Early career and research in Hàn sound glosses

Originally, South intended to continue studying the Ēryǎ after finishing his dissertation, which reached conclusions about the first three chapters of that text. He planned to cover the rest of the work, plus the *Xiǎo Ēryǎ* 小爾雅, which was thought to

contain the “leftovers” remaining after the *Ēryǎ* was compiled. He and his wife even prepared a concordance to the *Xiǎo Ēryǎ*, although it was never published.

Yet his research ended up taking a different direction after his dissertation was complete. As a graduate student, South had been interested in historical phonology, and while he was writing up his dissertation, he took a great interest in the work of his classmate and good friend Ting Pang-Hsin, who was writing his dissertation on Wèi-Jin 魏晉 phonology. During their discussions, South began to notice that a number of poets whose work Ting Pang-Hsin cited also had composed commentaries to the *Ēryǎ*, especially Guō Pú 郭璞 (276-374), who had written the earliest extant commentary to the *Ēryǎ*. The connections South observed inspired him to take up the topic of Wèi-Jin initials, in order to prepare a work that would complement Ting Pang-Hsin’s research on finals. Thus, the next year, after his dissertation was complete, he began gathering data from direct sound glosses and *fǎnqiè* 反切 spellings from the *Ēryǎ* commentary and putting this data on cards (as he noted, everything was on cards in those days), and in addition he also looked at materials going back to Hàn 漢 times. He pursued this line of research throughout the 1970s. South believed that different scholars had used different systems, which may have represented different dialects, and he hoped to sort these systems out, rather than conflating them as other scholars had done. This was the primary focus of his research during the 1970s, and it yielded several articles on initials in the languages of early commentators, including Xǔ Shèn 許慎 (c. 55 - c.149), Zhèng Xuán 鄭玄 (127-200), and Guō Pú, plus his first monograph, *A Handbook of Eastern Han Sound Glosses* (1983).

During this time too he met Axel Schuessler, then a history professor at Wartburg College, approximately two hours from Iowa City. South initiated the friendship after seeing an article that Axel had written, and realizing that there was someone else with similar interests in Iowa. This was probably in 1974 or 1975. They hit it off immediately, and thus began a friendship that continues to this day.

From traditional Chinese historical linguistics to Old Tibetan and Northwest Chinese

In the 1980s South began to have doubts about the tradition of projecting the *Qièyùn* 切韻 system back in order to reconstruct earlier stages of Chinese phonology, in part because of the influence of his good friend Jerry Norman. From the beginning, South’s basic interests were in historical linguistics, but more and more he came to have increasing doubts that the methodology of his doctoral training, “the Sinological, Karlgrenian model,” as he puts it, was true historical linguistics. He became restless, and started looking for a new research direction.

Early in the 1980s, he went to a conference in Taipei and saw his former advisor, Li Fang-kui. At the time, Li was working on Old Tibetan inscriptions, and South expressed interest. Li invited South to collaborate with him in his plan to publish the Old Tibetan inscriptions, an invitation that South accepted with enthusiasm. Li concentrated on the Tibetan inscriptions that had to do with China, and South focused on what he referred to as the “Tibetan-internal” inscriptions. Their collaboration yielded *A Study of the Old Tibetan Inscriptions*, published in 1987. Earlier, South had been in touch with Hungarian Tibetologist Uray Géza, who had read and offered incisive criticism on South’s translations. South wrote to Professor Uray and requested additional help, and he consented and became South’s mentor and teacher. This was the beginning of a regular correspondence that continued from the mid-1980s while South was working with Li on the Old Tibetan inscriptions until Uray’s death in 1991. South wrote to Uray in English, and Uray responded in German. They never met in person, and South never even knew what he looked like until he saw his picture in a volume dedicated to him, *Tibetan History and Language: Studies Dedicated to Uray Géza on his Seventieth Birthday*, in which South has an article, “Notes on Old Tibetan *rje-blas*” (1991). Yet Uray’s mentorship and instruction had a deep and lasting influence on South’s scholarship.

South was extremely interested in this project and considered changing direction, and making the study of Old Tibetan his life’s work. He felt he was finally working in “real” historical linguistics, and went so far as to tell Jerry Norman that he was done with Chinese. Jerry Norman had initially encouraged his doubts about the methodology, and had urged South to let go of traditional ideas, but at this point he dissuaded South from leaving the field completely. Instead, he encouraged him to work on Tibetan transcriptional material, that is, material in which Chinese texts had been transcribed into Tibetan, a phonetic script. Many of these were Buddhist texts, intended for example to allow Chinese people to read *sūtras* aloud in Chinese. Lo Ch’ang-p’ei and Csongor Barnabás had previously studied this material, and Jerry Norman reminded South that he had all the materials he needed to carry out this research on hand. Thus, with Prof. Norman’s encouragement, South produced what became his best-known book, *A Sinologist’s Handlist of Sino-Tibetan Lexical Correspondences*, published in 1986.

As Prof. Norman wrote,

I also tried to encourage him in his projects. More than once I suggested that he put his talents to work on outstanding problems in the history of Chinese phonology. One of these was the Tibetan transcriptions of Chinese from the late Táng 唐 and Wǔdài 五代 periods; South had studied both Classical and Modern Spoken Tibetan with what was then one of the leading Tibetan studies

faculties in the world. The combination of his expertise in Tibetan and Chinese historical linguistics made him the ideal person for pursuing the intriguing field of Sino-Tibetan transcriptions and the light they could shed on the evolution of Táng and Wúdài phonology. South attacked this problem with a thoroughness and attention to meticulous detail that amazed me. His work in this area later became recognized as the definitive treatment of the topic. As in the case of other of his research projects, his studies on this subject led to the publication of several books.

South thus continued his work using transcriptional data in research on northwest Chinese, resulting in two more monographs. *Studies in Old Northwest Chinese* (1991) was a short book, originally composed as three related articles that developed a set of theoretical points. *A Compendium of Phonetics in Northwest Chinese* (1994) contained all the data supporting the theoretical discussion, and was thus a longer book. Noting that the second book has often been cited without the first, South now says, “It was a big mistake to publish them separately. I should have put both of them together as a single volume.”

At that time, people believed that early northwest Chinese could be taken as a backward projection of modern northwest Chinese, and that the northwest dialects of Táng 唐 times and earlier were directly ancestral to the modern dialects. “But,” South says, “I now realize that this was an error. Takata Tokio 高田時雄 in Japan didn’t accept this idea, and I now know that he was right. I was wrong.” South says that he now believes that the early northwest dialects are a dead language, meaning they form a dead end with no modern descendants. Modern northwest dialects were intrusive, and came from Qīng 清 time migrations from the Central Plains, and the earlier (now-dead) northwest dialects now exist only in some surviving substrate features. But South has not written more on this topic.

During the early 1990s, South spent a great deal of time reading material concerning the so-called Jin 晉 dialects, spoken in Shānxī 山西. Scholars such as Lǐ Róng 李榮 had argued that they form a dialect family, and South believed that comparative work with related dialects could result in reconstructions of Chinese that present a truer picture of historical developments. Although he never published any of this work, the research he conducted at this time deeply affected his view of dialect history. He began to see that these dialects had distinct layers in their lexicons, and that the older layer was probably inherited, whereas the later layer was borrowed. He rejected the common notion that the later layer was “borrowed from *pǔtōnghuà* 普通話.” He thought it looked like it perhaps might be Míng 明 period Guānhuà 官話 (Mandarin) so he set out to learn more about Guānhuà.

The history of Mandarin: Missionary works and other transcriptional systems

As a consequence of his interest in Guānhuà, he began to examine early missionary dictionaries, and became interested in the work of Francisco Varo, a seventeenth-century Dominican missionary, and in particular in Varo's *Arte de la lengua mandarina*, a full grammar of Mandarin with a section on how the language should be pronounced. Greatly intrigued by what this volume could reveal about the history of Mandarin, South collaborated with Joseph Levi, then a colleague at the University of Iowa in Spanish and Portuguese, to translate it. This effort resulted in their joint translation, *Francisco Varo's Grammar of the Mandarin Language* (2000), and later led to another monograph by South, *Francisco Varo's Glossary of the Mandarin Language* (2006).

As South worked on these materials, he came to realize that Míng dynasty Guānhuà was based on a variety of Mandarin that was spoken in the Yangtze watershed, in Nánjīng 南京 and the surrounding region. The accepted view at that time was that modern “Mandarin” evolved in a straight line, from the language of the northern capital Dàdū 大都 (present-day Běijīng) of Yuán 元 times directly to modern times. Lǚ Guóyáo 魯國堯 had questioned this view as had Lǐ Xīnkui 李新魁. South began to publish his views about the Nánjīng-Yangtze watershed base of early Guānhuà in the 1990s. At the same time he also started looking at 'Phags-pa and Korean transcriptions to see what they might reveal about more northern varieties of Mandarin. This work yielded a number of articles, including “A Brief History of Mandarin” (2000), plus a book, *A Handbook of 'Phags-pa Chinese* (2007). While he was engaged in this work, South was invited to give lectures in Paris about the history of Mandarin. Papers for three of the four lectures he gave were published together as a single monograph, *Modern Chinese Phonology: From Guānhuà to Mandarin* (2007), and the fourth was published separately as an article.

South has since continued to investigate comparative dialect material. He undertook a comparative reconstruction of small groups of closely-related dialects in the western Jiāng-Huái 江淮 region, resulting in his 2005 monograph *Comparative Phonology of the Huáng-Xiào Dialects*, as well as a paper “The Phonology of Common Yangtze Watershed Mandarin,” which appeared in *Studies in Honor of Jerry Norman*, a collection he co-edited. He went on to look at the Xiāng 湘 dialects of central Húnán, following a suggestion by Jerry Norman, who pointed out that “no one knows what defines a Xiāng dialect.” He looked for shared innovations that could be used to identify Xiāng dialects taxonomically, and this resulted in his *Comparative Phonology of the Central Xiāng Dialects* (2011). Prior to this, South had brought demographic history to bear in a study of the Gàn 贛 dialects in his 2002 article “Migration History and Dialect

Development in the Lower Yangtze Watershed.” In his work with Gàn then and since, he has drawn on Laurent Sagart’s work on Gàn dialect history, and he has also benefited from field data provided by Chāng Méixiāng 昌梅香, a visiting scholar at Iowa during 2011. South’s most recent project brings many of the demographic and historical themes of his work on Xiāng and Gàn together in a study focusing on Hakka (Kèjiā 客家) and Shē 畬, a topic that also deeply interested Jerry Norman.

Migration and dialect layering: the new wave in Chinese linguistics

During the past two decades, South became increasingly dissatisfied with the traditional approach to Chinese historical linguistics and historical reconstruction. He set forth many of his thoughts on this topic in “A New Approach to Chinese Historical Linguistics,” a 1995 paper co-authored with Jerry Norman, and also in “The *Chiehyunn* System and the Current State of Chinese Historical Phonology” (2003), in which he laid out his views on the place of the *Qièyùn* in understanding Chinese language history. The conventional model, still followed by many scholars today, has at its heart the *Qièyùn*, and relies heavily on rimebooks and rime tables. South has rejected this approach, as he believes that a solid model for understanding language development in China should above all be based on *spoken* forms of Chinese, including dialects and spoken koinés. This model must also take into account China’s very complex migration history, specifically, the repeated southward waves of Sinitic-speaking people, who encountered and displaced or absorbed speakers of other dialects or non-Sinitic languages, which now survive only vestigially. Migration waves have resulted in layer upon layer of lexical items, and such layering is now its own area of study in Chinese (方言層次學 *fāngyán céngcì xué*). These layers can be separated using “shallow reconstruction,” focusing on very similar, closely-related dialects. South believes that there is enormous potential for combining historical linguistics with work in migration history, such as that undertaken at Fùdàn 復旦 University by Tán Qíxiāng 譚其驤 (now deceased) and his student Gě Jiànxíóng 葛劍雄. South has done some of this in his book *Comparative Phonology of the Huáng-Xiào Dialects*, but would like to see this become a focal point of future research in the field of Chinese historical linguistics. Certain written evidence, such as foreign transcriptions of spoken language, provide evidence that this approach can utilize, but rime dictionaries and rime tables do not provide the basic framework of this model; rather, this approach entails systematic application of the comparative method, relying on spoken language.

When asked about his hopes for the future of the field, South said that he would like the primary focus to be on historical and comparative dialectology, and he hopes that scholars will emphasize the study of real, spoken language as the foundation for

understanding language history, instead of treating the prescriptive, idealized forms found in dictionaries as the basis of Chinese historical linguistics. He hopes that the best and brightest in the field will study real language, real dialects, and real lexicons, not just syllables connected to characters, and that they will recognize that words and syllables for which there are no Chinese characters are still a valid and important part of study. He hopes that future work will focus not only on the mainline dialects such as Gàn, Hakka, and Wú, but also the unusual ones, such as the so-called *tǔhuà* 土話 dialects, Bái 白, and Wǎxiāng 瓦鄉 (as in William Baxter and Laurent Sagart's work on Vietic and Wǎxiāng loanwords), as many if not most of these are likely descended from early types of Chinese that were later marginalized by migrations. He also mentioned the great importance of having research translated into Chinese, particularly comparative studies of proto-dialects, and works that apply the comparative method to individual dialects. South says that he hopes to devote his remaining years to clarifying as much as possible the common comparative systems of the mainline dialects, and he hopes that younger scholars will continue this work and will also expand the scope of their comparative studies to include unusual or marginalized dialects as well.

* * *

This biographical sketch has focused primarily on South's scholarship, as is appropriate for a piece in a publication of this nature. Yet a biography of South Coblin is hardly complete without mentioning his deep love of the outdoors, which began when he was a youth in Kentucky. He took his sons on hiking and camping expeditions when they were young, and continues to enjoy hikes in the Cascades of the Pacific Northwest when he visits his very good friend Axel Schuessler. It is thus most fitting to conclude this biography with the following comments from Axel:

When we hike in the Cascades, we of course have a goal in mind, perhaps a pass, a mountain, or a particular spot. And South thus proceeds step by step, no rush, but very methodically. Nothing can stop him until he reaches the destination. It is the same with all else he does, including research: that's what he wants to find out, that's what needs to be done, and then he proceeds systematically and methodically, one step at a time, nothing can stop him. . . . South's success can be explained by his prodigious energy, his unfailing memory, his curiosity paired with scientific skepticism, and his ability to never lose sight of the forest while still paying all necessary attention to every single tree.

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(as of October 2013)

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A Model for Chinese Dialect Evolution^{*}

Jerry Norman

University of Washington

The conventional approach to the comparative study of Chinese dialects has been to compare the phonological categories of a given dialect to the initial, final and tonal categories of the Suí 隋 dynasty rimebook, the *Qièyùn* 切韻. In this article an alternative model is presented. In this model two historical stages of Chinese are described: Common Dialectal Chinese (CDC) and Early Chinese (EC). Common Dialectal Chinese is basically a simplification of the *Qièyùn* categories according to their incidence in modern non-Mǐn dialects; Early Chinese is based on the *gǔyīn* 古音 system of the Qīng 清 philologists; phonologically EC uses the pharyngealization theory put forth in Norman (1994). It is further asserted that modern non-Mǐn dialect forms can be derived from CDC without reference to the *Qièyùn* categories and that EC accounts for the distinctions found in the Qīng *gǔyīn* systems. Questions concerning the dates of CDC and EC are left open.

Key words: *Qièyùn*, Chinese dialect history, Chinese historical phonology, Chinese dialects, Early Chinese, Common Dialectal Chinese, Mǐn dialects

1. Introduction

In the past the history of Chinese phonology has been presented as a set of rules linking several textually attested stages of the language. This model seemed totally natural at the time of Bernhard Karlgren's well-known work, and Karlgren's views set the tone for decades of research in the field.

At the heart of this early model lay the notion that the chief task of Chinese historical linguistics was a realistic reconstruction of the Suí 隋 (581-618) dynasty rimebook, the *Qièyùn* 切韻. Karlgren viewed this work as a record of a type of koiné

^{*} *Editors' note:* Jerry Norman worked to complete this paper in the face of increasingly debilitating illness, and sent the final version to us a week prior to his hospitalization and just twelve days before his death on July 7, 2012. He dedicated it to his friend South Coblin, with whom he had discussed most of its major points. It has been edited only minimally, primarily for stylistic consistency. The editors would like to express grateful appreciation to Jerry Norman's family for their support as we prepared this paper for publication, even while grieving their deep loss.

that later spread to almost all of Chinese and became the ancestor of the majority of present-day dialects (Karlgren 1954). In the 1930s Chinese linguists began to take a different view, seeing in the *Qìyèyùn* a composite phonological inventory and not the speech of a single place and time (Norman & Coblin 1995). Nonetheless, new *Qìyèyùn* reconstructions continued to appear; the idea that modern Chinese dialects descend from the *Qìyèyùn* continued to be accepted and a majority of works on Chinese dialects has been informed by this view. Progressively more and more problems appeared in this model, giving rise to a wide-spread questioning of its basis. Below some of these problems are outlined.

The first problem with the *Qìyèyùn* has to do with its textual nature. The Chinese tradition tended to see in it a composite phonological system, combining both older elements with elements from two or more contemporary norms. A careful reading of Lù Fǎyán's 陸法言 preface to the *Qìyèyùn* strongly supports such a view, and this is the prevalent view at the present time.¹ Rather than being a straightforward record of a language existing at a certain point in time and space, the *Qìyèyùn* gives us a complex diasystem whose several components are not easy to disentangle. Nor was the *Qìyèyùn* primarily a record of spoken language; it was rather an attempt to standardize reading pronunciation. Lù Fǎyán took pains to create an inclusive standard, on the one hand retaining a number of older, hallowed distinctions gleaned from earlier rimebooks and commentaries, and on the other hand accommodating features from at least two different regional norms. This is in essence the view of Zhōu Zǔmó 周祖謨, probably the most authoritative interpreter of the textual nature of the *Qìyèyùn* in the 20th century (Zhōu 1966).

How do these views affect the idea of reconstruction? They tell us that if we do a literal reconstruction of the *Qìyèyùn*, creating separate phonological values for each of its categories, the result will not be a natural phonological system tied to a certain time and place (which is what a natural system is), but a complex mixture of heterogeneous elements. A reconstruction of this set of categories, then, will be both unnatural and excessively complex.

Another aspect of the *Qìyèyùn* that must be kept in mind is that it is a collection of graphs from all periods prior to the time of Lù Fǎyán, without an indication of which of these graphs represented current words and which were archaisms. As a result we have good reason to doubt whether the *Qìyèyùn* inventory actually represented a real language at all, and whether terms like Ancient and Middle Chinese are not misleading.

As a result of the considerations outlined here, perhaps we should abandon the notion that the *Qìyèyùn* provides us with an objective and historical basis for the study of

¹ Two good accounts of the nature of the *Qìyèyùn* are Hóng (1982:159-170) and Hú (1987:146-153). See also Jiǎng (1994:35).

Chinese linguistic evolution. Below I sketch a possible alternative approach which reinterprets the *Qièyùn*'s function in such an evolution and, I believe, provides a neater and more economical overall picture.

2. Reinterpreting the role of the *Qièyùn*

I think many people when they first come in contact with Karlgren's Ancient Chinese, are struck by its extraordinary complexity and its notational awkwardness, to say nothing of the typographical difficulties in citing it in its original form. Various attempts have been made to simplify the notation without seriously challenging the underlying assumptions of the reconstruction itself (Chao 1941, Martin 1953). All of this has made it especially difficult to use Karlgren's reconstruction as a basis (or meta-system) for elucidating the development of later stages of Chinese, especially modern Chinese dialects. But is there any way out of this unsatisfactory state of affairs? After all, the complexity of the *Qièyùn* reconstructions is, so to speak, built in; there is no way around it. One practical solution has been to abandon the conventional reconstruction altogether, especially in the field of comparative dialectology. This approach realizes that what is really important to comparative work are the categories themselves. Beginning in the Táng 唐 dynasty (618-907) an elaborate interpretation of the rimebook categories arose, referred to as the *děngyùntú* 等韻圖, or in English the 'rimetables'. This process was strongly influenced by a later and more evolved variety of Northern Chinese. The culmination of this project was the production of a series of rimetables in the Sòng 宋 (960-1279) and Yuán 元 (1279-1368) dynasties. These tables provide a number of general concepts under which the *Qièyùn* categories can be classified. Since this system was standardized in the middle of the twentieth century by a number of prominent Chinese linguists, it has more or less come to replace reconstructive schemes in work on historical and comparative linguistics.² Reconstruction, however, remains the norm outside of China.

My question now is, are the two approaches mentioned above the only possible ones? What I would like to do in the rest of this paper is to present some ideas of a third way. The ideas are admittedly speculative, but the hope is that they may point the way to an exit from what seems an impasse. My approach revolves around the idea that a *Qièyùn* reconstruction per se may not be a very useful tool for talking about Chinese linguistic history, and, indeed the *Qièyùn* may not be reconstructable in any useful sense. Here I appeal to the history of a reconstructive process which has not produced very

² This system is conveniently codified in the *Fāngyán diàochá zìbiǎo* 方言調查字表 (Chinese Academy of Social Sciences 1988) and in the *Gùjīn zìyīn duìzhào shǒucè* 古今字音對照手冊 (Dīng 1981 [1958]); both are chiefly the work of Dīng Shēngshù 丁聲樹 and Lǐ Róng 李榮.

promising results. I wish to emphasize that I am not advocating the abandonment of the *Qìyùn* as a basic datum of Chinese historical linguistics; what I propose, rather, is a reinterpretation of its role.

The *Qìyùn* was composed at the end of the Northern and Southern Dynasties (*Nánběicháo* 南北朝 317-581) and was, at least in part, an attempt to unify what had become a rather confused situation due to the preceding centuries of disunion. Lù Fǎyán adopted a broadly based accommodating view of early rimebooks and competing contemporary norms. As a result he produced a composite syllabic inventory that comprised both archaic and geographically disparate elements. Moreover, Lù's compilation occupies a position between a more archaic variety of Chinese, which I will call Early Chinese (EC), and a variety of Chinese ancestral to the modern mainstream dialects. I do not mean that it lies between these two stages in a solely chronological sense but only that in the course of its compilation, as a result of the author's guiding principles, the *Qìyùn* absorbed elements of two stages of fundamentally different types of Chinese. Is there a possibility, then, of separating out these two types and, in the process, creating a more intelligible and usable profile of Chinese linguistic evolution? I think there is.

I divide modern Chinese dialects into two basic varieties: mainstream dialects and Mǐn 閩 dialects. This division was already recognized by Karlgren and is still generally accepted by contemporary linguists (Karlgren 1954). The ancestor of the mainstream dialects I will call Common Dialectal Chinese (CDC). This system is not overly difficult to reconstitute and appears overall typologically natural (Norman 2006). Compared to *Qìyùn* reconstructions, it is much simpler. An outline of Early Chinese was given in my 1994 article, "Pharyngealization in Early Chinese." Both Common Dialectal Chinese and Early Chinese are grounded in the *Qìyùn* categories, and rules can be written which connect all three systems in a straightforward fashion. It is possible that both CDC and EC could be worked out without reference to the early rimebooks, and it might be useful to attempt this, but for the present experiment, I have employed the *Qìyùn* categories as useful tools to determine the relevant classes of sounds in CDC and EC. The most interesting preliminary result of this approach is that, once CDC and EC systems have been established, the original *Qìyùn* may play only a secondary role in the explication of Chinese phonological evolution.

For me the crux of the reconstructive enterprise is to understand the origins and development of modern, living dialects. Speaking empirically, Chinese dialects are forms of language that can presently be recorded, verified and studied from a number of points of view. They are real things in time and space. Written records are different: we can rarely know how faithfully they reflect real-world spoken language. Undoubtedly, some of them are relatively close, but in other cases the relationship to spoken language is obscure. When faced with different kinds of data, it is my view that we should ground

ourselves in what we know most reliably—my emphasis on modern spoken forms. But this view is no more than a matter of priorities; written records, where they exist, are certainly to be used despite all the difficulties attendant upon such a project. Ideally, the two types of data need to be integrated to form a composite picture.

There may never have been a perfectly unitary language out of which Chinese grew. We know, however, from various sources, that koinés arose in several periods of Chinese history and that these koinés were extremely important in the history of the language (Coblin 1994). In a manner of speaking, they were a mechanism of unification and a counterforce to the natural tendency for purely local dialects to fragment endlessly. To what extent these koinés ever became ancestral to later dialects is unknown. There is probably no alternative, then, to constructing protosystems in order to understand the historical development of Chinese.

3. Common Dialectal Chinese

Common Dialectal Chinese is the name I give to a reconstructed system that lies at the base of modern non-Mǐn dialects. This system is considerably simpler than the *Qièyùn* phonological inventory, but, in general, the two systems are rather closely related. To a large degree, the categories of CDC can be obtained by eliminating from the *Qièyùn* inventory all the distinctions that are not reflected in the modern mainstream dialects. It is of course necessary also to verify the results obtained in this way by actual dialect data; in a number of cases such a comparison will require adjustment because of different distributional patterns. For an example of this procedure see Norman (1999).

In the aforementioned article, CDC was shown to have the following finals in *-n* (Norman 1999:194-195):³

<i>*on</i>	<i>*an</i>	<i>*en</i>
	<i>*ian</i>	<i>*in</i>
<i>*uon</i>	<i>*uan</i>	<i>*un</i>
	<i>*iuan</i>	<i>*iun</i>

The reflexes of these finals are given below in six representative mainstream dialects: Běijīng (BJ) 北京, a Northern Mandarin dialect; Yángzhōu (YZ) 揚州, a Jiāng-Huái 江淮 dialect; Sūzhōu (SZ) 蘇州, a Wú 吳 dialect; Nánchāng (NC) 南昌, a Gàn 贛 dialect; Méixiàn (MX) 梅縣, a Hakka (Kèjiā) 客家 dialect; and Guǎngzhōu (GZ) 廣州, a Yuè 粵 dialect. Forms are from Peking University 北京大學 (1989).

³ Previously I recognized a sixth vowel /y/ [y] which is now written as /iu/. See Norman (2006).

	CDC * <i>on</i>		
	搬	端	肝
<i>Tone</i>	1	1	1
BJ	pan	tuan	kan
YZ	puõ	tuõ	kǣ
SZ	pø	tø	kø
NC	pøn	tøn	køn
MX	pan	tøn	køn
GZ	pun	tyñ	køn

	CDC * <i>an</i>		
	斑	單	間
	1	1	1
	pan	tan	tɕien
	pǣ	tǣ	kǣ
	pe	te	ke
	pan	tan	kan
	pan	tan	kian
	pan	tan	kan

	CDC * <i>uon</i>		
	官	歡	寬
<i>Tone</i>	1	1	1
BJ	kuan	xuan	k'uan
YZ	kuõ	xuõ	k'uõ
SZ	kuø	huø	k'uø
NC	kuøn	føn	k'uøn
MX	kuøn	føn	k'uøn
GZ	kun	fun	fun

	CDC * <i>uan</i>		
	關	慣	還
	1	5	2
	kuan	kuan	huan
	kuǣ	kuǣ	xuǣ
	kue	kue	hue
	kuan	kuan	uan
	kuan	kuan	van
	kuan	kuan	wan

	CDC * <i>iuān</i>		
	泉	拳	選
<i>Tone</i>	2	2	3
BJ	tɕ'yan	tɕ'yan	ɕyan
YZ	tɕ'yě	tɕ'yě	ɕyě
SZ	ziɪ	ɕiø	siɪ
NC	tɕ'yøn	tɕ'yøn	ɕyøn
MX	ts'an	kian	sien
GZ	ts'yn	k'yn	syn

	CDC * <i>ian</i>		
	變	天	見
	5	1	5
	pien	t'ien	tɕien
	piě	t'iě	tɕiě
	piɪ	t'ɪɪ	tɕiɪ
	pien	t'ien	tɕien
	pien	t'ien	kian
	pin	t'in	kin

	CDC * <i>en</i>		
	根	很	恩
<i>Tone</i>	1	3	1
BJ	kən	xən	ən
YZ	kən	xən	ən
SZ	kən	hən	ən
NC	kien	hən	ɲien
MX	ken	hən	en
GZ	kən	hən	jən

	CDC * <i>in</i>		
	民	新	斤
	2	1	1
	min	ɕin	tɕin
	miŋ	ɕiŋ	tɕiŋ
	min	sin	tɕin
	min	ɕin	tɕin
	min	sin	kin
	mən	sən	kən

	CDC <i>*iun</i>				CDC <i>*un</i>		
	君	雲	韻		門	寸	混
<i>Tone</i>	1	2	6		2	5	6
BJ	tɕyn	yn	yn		mən	ts'uən	xuən
YZ	tɕyn	yn	yn		mən	ts'uən	xuən
SZ	tɕyn	jyn	jyn		mən	ts'ən	ɦuən
NC	tɕyn	yn	yn		mən	ts'un	fən
MX	kiun	iun	iun		mun	ts'un	fun
GZ	kuen	wən	wən		mun	ts'yn	wən

If we are going to compare Chinese dialects rigorously, it seems to me that the sort of common dialectal system suggested by the examples above is well worth exploring. In terms of parsimony such a common system is obviously superior to a reconstruction of the *Qièyùn* categories, since those reconstructions are far too complex. Too many of the *Qièyùn* categories lack meaningful reflexes in modern dialects. The historical implications of such a view are important. Rather than viewing the *Qièyùn* categories as in some sense ancestral to modern popular forms of speech, such modern forms are seen to come from an old form of popular (spoken) Chinese which differed in important respects from the character readings found in traditional sources. This old vernacular form of language was characterized above all by its comparative simplicity. It bears a regular relationship with the *Qièyùn* categories but, significantly, distribution patterns are often different, which suggests that the relationship of the two systems may have different origins. Let me illustrate this with an example. If we inspect the riming relation between CDC **on* and **an*, we obtain the following pattern:

搬	<i>*pon</i>	端	<i>*ton</i>	肝	<i>*kon</i>	官	<i>*kuon</i>
斑	<i>*pan</i>	單	<i>*tan</i>	間	<i>*kan</i>	關	<i>*kuan</i>

If we convert these reconstructions to their *Qièyùn* values, this riming pattern is lost:⁴

搬	<i>pân</i>	端	<i>tuân</i>	肝	<i>kân</i>	官	<i>kuân</i>
斑	<i>pan</i>	單	<i>tân</i>	間	<i>kăn</i>	關	<i>kwan</i>

We can see first of all that 單 *tân* rimes differently from the way it does in CDC. Put in rimetable terms 單 *tân* is a first division word but its CDC riming pattern is with

⁴ *Editors' note:* Following general convention, *Qièyùn* forms are not starred. This serves to distinguish them from the forms derived by strictly comparative procedures, such as CDC and Early Chinese forms.

second division words. Yakhontov (1960) and Baxter (1992) have argued convincingly that words like *duān* 端 (*Qièyùn tuān*) come from an earlier **ton*. Hence it appears that between an earlier period and the *Qièyùn* there was a change from **on* to *uān*. But did this change really take place everywhere or did it have a limited geographic distribution? The CDC correspondence is **on*, suggesting that in some regional varieties of Chinese there was no such change. To suggest that *duān* 端 went through a stage in which **ton* became *tuān* and then over a large territory regressed to **ton* seems forced at best and indeed seems to be guided by a desire to make Chinese historical change conform to a *Qièyùn*-like pattern. At the very least, we should consider alternative possibilities.

It seems very likely that CDC has as its basis a five vowel system consisting of two high vowels (*i u*) and three non-high vowels (*e a o*). There is nothing resembling the *děng* 等 distinction of the rimetables, nor do the well-known *chóngniǔ* 重紐 distinctions leave any trace in the form of popular spoken Chinese from which the modern non-Mǐn dialects derive.

The considerations outlined above suggest that the *Qièyùn* categories are the result of a blending of at least two regional varieties of Chinese and the retention of certain earlier distinctions enshrined in the rimebooks consulted by Lù Fǎyán. And we should always remember that those categories represent a school pronunciation and were never intended to be the record of an actual spoken language. It appears then that the modern non-Mǐn dialects evolved out of early spoken dialects which in turn developed from varieties of still earlier Chinese, by and large independently of the scholastic construction known as the *Qièyùn*.

4. Early Chinese

Now let us turn our attention to Early Chinese. What we know of earlier periods revolves around the reconstructive project known variously as *gǔyīnxué* 古音學, Archaic or Old Chinese (OC). This project has its roots in the work of several Qīng 清 dynasty (1644-1911) philologists (Hú 1987). Their basic data were pre-Hàn rimed texts, the structure of the Chinese script (particularly as it is revealed in the *Shuōwén jiězì* 說文解字) and the phonological categories of the *Qièyùn*. The vast majority of early work had to do with the riming parts of syllables and relatively little attention was given to the study of initials. It was Bernhard Karlgren who first attempted a complete reconstruction of the early stage of Chinese, which he called Archaic Chinese. In addition to working out a scheme for the Archaic Chinese finals, he also gave extensive attention to the study of initials; his results, although highly speculative, influenced several generations of scholars in Asia, North America and Europe. Many of his basic presuppositions have been accepted and continue to influence work in this area. But there are serious

problems with his approach. First is the assumption that we have sufficient evidence to make an integral reconstruction of any form of pre-Hàn Chinese, to say nothing of the language of the Zhōu 周 capital in the Western Zhōu 西周 (1045-771 B.C.E.) dynasty (Karlgren 1940:3). In fact most of the evidence we have has to do with rimes; interpretations of the initials were a great deal more speculative and the work of decades on this subject has not been particularly encouraging; in reality, the idea that we can produce a well-founded reconstruction of pre-Hàn initials may only be wishful thinking. To be sure, some productive ideas about early initials have been put forth, but the sort of detailed reconstruction envisioned by Karlgren is probably not possible.

Since my purpose is not to write one more documentary history of Chinese but rather to develop a framework for studying the genealogy of contemporary dialects, my interest in EC differs in several ways from traditional *gǔyīnxué*. Instead of synthesizing a system based entirely on early written records, I am interested in constructing an early system from which the *Qièyùn* (QY) categories, CDC and (to a certain extent) Mǐn can be derived.

As I remarked earlier, the *Qièyùn* categories reflect a state of language in which EC was on its way to developing into various forms of medieval Chinese. Many of the QY categories harken back to earlier distinctions; a good example of this are the four rimes of the *zhǐshè* 止攝: 支 *zhī* 脂 *zhī* 之 *zhī* 微 *wéi*. These four rimes all merged in the forms of Chinese that were to represent the mainstream development but they were all separate rime groups at an earlier period. In more concrete terms, the single CDC final **i* has four different origins in EC. In a certain sense, EC is a reframing of the QY categories in light of earlier rime evidence. Thus, to my mind, the earliest stage of Chinese about which we have access is closer to the QY categories than traditional Archaic or Old Chinese. The methodology for arriving at EC categories is sketched below.

The most solid aspect of traditional *gǔyīnxué* was the working out of the OC rime groups; this was done by comparing early rimed texts to the *Qièyùn* rimes. Somewhat later the phonetically-based graphs of the early script came to play an important role. By the early twentieth century the first relatively complete versions of this system were produced. Later work by Dǒng Tónghé (Tung T'ung-Ho) 董同龢 (1948), Yakhontov (1960), Pulleyblank (1962, 1963, 1973), Bodman (1980) and Baxter (1992) introduced further refinements, culminating in the system found in Baxter's *A Handbook of Old Chinese Phonology* (1992). Old Chinese, taken in its conventional sense, must have been a composite system like the *Qièyùn* itself. The heterogeneity of the evidence makes this unavoidable. The system depends on rime evidence, which comes from texts originating in different places and at different times; the script evidence is open to the same criticism. Scholars have essentially used the analysis of the *Shuōwén jiězì*, which was

written at the end of a long period of development, and the graphs it contains also have a heterogeneous origin. This early Chinese diasystem was remarkably long lived; its finals changed only in minor ways from the time of the *Shījīng* 詩經 down to the middle of the Hàn 漢 dynasty (206 B.C.E.-220 C.E.). Luó Chángpéi's 羅常培 and Zhōu Zǔmó's 周祖謨 work on Hàn riming attest to this fact (1958:9-15). Unfortunately we know much less about the development of initials. Since EC, unlike conventional OC, is concerned mainly with an upper stage for the application to Chinese dialectal development, I do not feel compelled to follow many of the radical and speculative proposals put forward in the past. My tendency is to adopt a minimalist approach, including in the initial system only those elements which are in some way reflected in later developments; some of these ideas are similar to those of Axel Schuessler (2009). This precludes attempting to explain those aspects of the *xiéshēng* 諧聲 series which are basically self-referential; that is, features for which the only material evidence is the *xiéshēng* series itself. The goal here has been to exclude any element that cannot be shown to have implications for the subsequent development of the language. Furthermore, I think it is very difficult to demonstrate that *xiéshēng* characters are a sufficiently coherent body of evidence on which to base a solid reconstruction of OC initials. Indeed, one result of using *xiéshēng* evidence is the detachment of conventional OC from later developments in the language. At any rate, my intention here is chiefly to speak of finals, and I include provisionally reconstructed initials for the purpose of illustration.

Below a set of EC examples is presented. These forms are arrived at by applying the principles outlined in Norman (1994). The finals, for the most part, are close to those proposed by William Baxter (1992), but with some differences noted here and there. In the following, Jiàn'ōu 建甌 forms are from Lǐ & Pān (1998) and Jiànyáng 建陽 forms come from Norman (1969); other Mǐn forms are from my personal field notes.

5. Some Early Chinese examples

5.1 EC *an

- (1) 搬 'move'. EC *(n)pan. QY *puân*. CDC **pon*¹. Xiàmén 廈門 (XM) [puǎ¹], Fúzhōu 福州 (FZ) [puan¹], Jiàn'ōu 建甌 (JO) [puen¹], Jiànyáng 建陽 (JY) [voio⁹].

The graph 搬 is late but the same word was written earlier as 般; the earliest attestation is the *Yùpiān* 玉篇: 般運也; it can be cited from numerous Táng 唐 texts in the meaning of 'move' (*Hànyǔ dà zìdiǎn* 漢語大字典 5.3057b). A first division word in the *Qièyùn*, we assign it to our pharyngeal type of phonation, shown by the apostrophe preceding the form. JY [voio⁹] points to a voiced or 'softened' initial in Proto-Mǐn; in Norman (1986) I pointed out that a significant number of words having

the third series of voiced initials in Mǐnběi 閩北 appear with pre-nasalized initials in early Miao-Yao (Hmong-Mien) loans. Here I indicate this feature by **(n)*, which is to be interpreted as a possible prenasalization giving rise to a special set of voiced initials in certain Mǐnběi dialects (Norman 1996). This **n* is placed in parentheses because the only evidence found for it at present is in Mǐnběi dialects and in early loans in Miao-Yao languages; cf. **(h)* below.

In Baxter's OC vocalic system a QY syllable like *puân* can come either from **pan* or **pon*; since the word in question is not found in rime position in the *Shījīng*, we do not know for certain which vocalism should be assigned. The Mǐn forms suggest **a* vocalism, if we are willing to entertain the possibility that Mǐn vocalism in many cases harkens back to EC.

- (2) 懶 'lazy'. EC **(d)lan^x*. QY *lân:*. CDC **lan⁴*. XM [tuã⁶], FZ [tiaŋ⁶] (seen in the compound 懶蟲 [tiaŋ⁶ thøyŋ²]), JO [tyeŋ⁴], JY [lyeŋ⁵].

In this case the vocalism is unambiguous as is the pharyngeal nature of the syllable. The initial, on the other hand, presents a couple of problems. The first of these is the question of the origin of QY *l*. Karlgren projects QY *l* back to **l* in his Archaic Chinese system. Pulleyblank in a seminal 1973 article suggested the QY *l* derives from an earlier **r* and that OC **l* became *d* or *ji* in the QY system. Subsequently this hypothesis was widely accepted (Schuessler 1974, Bodman 1980). Since my goal is to establish a system reflecting dialectal evolution, I will retain *l* for EC since no Chinese dialect has the OC distinction of **r* and **l*. I might say in passing, however, that the evidence for a contrast of **r* and **l* at some archaic period is substantial. The cited Mǐn forms present a special problem; for these forms the common initial is **d* and not **l*; moreover the final goes back to **ian* rather than to **an*. There are a few additional examples of EC **l* corresponding to Common Mǐn **d*. Here I will cite two:

鯉 'carp'. XM [li³], FZ [li³], JO [ti⁴]; cf. Shíbēi 石陂 [di⁵], Dàtián 大田 [te⁴] (Oroshikise & Chén 1985).

鹿 'deer'. XM [lok⁸], FZ [løy⁸], JO [lu⁴], JY [lo⁸], Cháozhōu 潮州 (Jiēyáng 揭陽) [tek⁸], Hǎifēng 海豐 [tiok⁸] (Lín & Chén 1996).

In the word for 'carp' we see evidence for **d* in Mǐnběi dialects and some Mǐnnán dialects (Dàtián). In the case of 'deer' the evidence is limited to the Cháozhōu dialects. The cases of Mǐn **d* for EC **l* are sporadic and not easy to explain. Significantly the three words cited above all occur in Tai languages, possibly as early loans from Chinese. The following forms are quoted from Liáng & Zhāng (1996):

‘lazy’: Proto-Tai **gran^c*. Thai [khra:n⁴], Lóngzhōu 龍州 [kjan⁴].

‘carp’: Proto-Tai **mblai^{alc}*, Thai [nai²], Lakia [-plai⁴].

‘deer’: Proto-Tai **glɔk^d*, Lóngzhōu [kjo:k⁸], Língāo 臨高 [tsok⁸].

What is interesting about these forms is that they all involve cluster initials. The sporadic nature of these words in Mǐn is possibly a reflection of early consonant clusters. Provisionally I will indicate these forms as **(d)l*.

(3) 肝 ‘liver’. EC **kan*. QY *kân*. CDC **kan*. XM [kuã¹], FZ [kaŋ¹], Mùyáng 穆陽 [kan¹], JO [xueŋ¹], JY [xueŋ¹].

With the exception of the Mǐnběi dialects, all the data point to an initial velar stop; Mǐnběi dialects exceptionally have fricative initials. Additional examples from Mǐnběi are from Chóngān 崇安 [xuain¹], Shūfāng 書坊 [xoŋ¹], Shíbēi [xuain¹], Yǒngān 永安 [hũm¹], Shàowǔ 邵武 [hon¹]. There are several other examples of this phenomenon in the dialects of Northwestern Fújiàn 福建 as is illustrated in the following forms:

	JY	JO	Chóngān	Shíbēi
稼	xa ⁵	xa ¹	--	xa ⁵
橘	xi ⁷	xi ⁷	xi ⁷	--
箕	xi ¹	xi	xi	--
韭	xiu ³	xiu ³	xiu ³	xiu ³
教	xau ¹	xau ¹	xau ¹	xɔ ¹

All non-Mǐnběi dialects point to a Common Mǐn **k* in these forms. At present I have no explanation for this set of correspondences.

(4) 寒 ‘cold’. EC **(n)gan*. QY *yân*. CDC **han²*. XM [kuã²], FZ [kaŋ²], JO [kueŋ³], Shíbēi [guain⁹].

The EC and Mǐn forms agree perfectly here, but compare the following word:

旱 ‘dry, drought’. EC **gan*. QY *yân*:. CDC **han⁴*. XM [uã⁶], FZ [aŋ⁶], JO [ueŋ⁴], JY [ueŋ⁵]; cf. Shíbēi [fuaŋ⁵].

These two etymons (*hán* 寒 and *hàn* 旱) have the same initials and finals in EC, the QY and CDC. In Mǐn dialects, however, 旱 has either a zero initial or, in the case of Shíbēi [fɿ] where 寒 has a velar stop initial. Does this Mǐn distinction imply a distinction that should be projected back to EC? Or should we consider forms with zero

initial loans from some early koiné? From a strictly comparative point of view, it is hard to say. Certain finals belong to the earliest stratum in Mǐn; among these are two finals which we have reconstructed as **ai* and **oi* (cf. Norman 1981).

Finals from Common Mǐn **ai*

	XM	FZ	JO	Shàowǔ
沙 ‘sand’	sua ¹	sai ¹	sue ¹	sai ¹
麻 ‘sesame’	muã ²	muai ²	mue ⁵	mai ⁷
籬 ‘basket’	lua ²	lai ²	sue ⁵	sai ⁷
破 ‘break’	phua ⁵	phuai ⁵	phue ⁵	phai ⁵

Finals from Common Mǐn **oi*

	XM	FZ	JO	Shàowǔ
螺 ‘snail’	le ²	løy ²	so ⁵	soi ⁷
坐 ‘sit’	tse ⁶	soi ⁶	tso ⁶	tshoi ³
火 ‘fire’	he ³	hui ³	xo ³	fəi ³

Note that FZ [-ai] and [-uai] are unconditioned variants. JO [-o] corresponds to [-ui] in JY: 螺 [sui²], 坐 [tshui⁸], 火 [khui³]. Now we can examine QY *xiámǔ* 匣母 words having these finals.

荷 ‘carry’. JO [kue⁴] ‘carry on the back’; Shíbēi [guai⁵] ‘carry at the side’; Shàowǔ [hai³] ‘carry on a pole’; Méixiàn Hakka [khai¹] ‘carry’ (Huáng 1995:98).

夥 ‘many’. XM [ua⁶] (Douglas 1899) ([oã] in [bô oã] ‘not many’), FZ [uai⁶] (in [nuo⁸ uai⁶] ‘how many’), Shūfāng [oe⁵] ‘many’, Shàowǔ [uai³] ‘id.’

禾 ‘rice plant’. JY [ui²], JO [o⁵], Shàowǔ [uai³]. Note that Yóuxī 尤溪, an Eastern Mǐn dialect, has [uai²].

Here we have forms from the earliest stratum of Mǐn, judging from their finals. ‘Carry’ has a stop initial in JO and Shíbēi as well as in the Hakka dialect of Méixiàn. Such forms warn us not to conclude too hastily that the origin of the Mǐn distinction found with words having the *xiá* initial is to be explained as a difference of historical strata.

(5) 線 ‘thread, string’. EC **san*. QY *sjän-*. CDC **sian⁵*. XM [suã⁵], FZ [siaŋ⁵], JO [syen⁵], JY [syen⁵].

- (6) 泉 ‘spring, source’. EC **dzan*. QY *dzjän*. CDC **dzion*². XM [tsuã²], FZ [tsuon²], JO [tsyen⁵], JY [tsyen²].

Yakhonov (1960) and Baxter (1992) have both pointed out that the vowel of 泉 should be OC **a* and not **o* even though the QY reading has a rounded vowel. This is confirmed by the Mǐn forms. The FZ form cited above is not a regular correspondent to the other Mǐn forms but a loan from some non-Mǐn source. Fúān 福安 preserves the regular Mǐndōng for [sian²] in [sian² chüi³] (Ibañez 1941-1943:43). Fúqīng 福清 also has a comparable form [sian²] (Féng 1993). The Fúzhōu form is not a regular correspondent and is probably due to literary influence.

- (7) 鱸 ‘yellow eel’. EC **(h)dan*. QY *žjăn*:. CDC **zhian*⁴. XM [tshuã⁶], FZ [tshian⁶], JO [syen⁶], JY [syen⁵], Shàowǔ [ʃien³].

The character *shàn* 鱸 does not appear in the *Guǎngyùn* 廣韻. In the *Jíyùn* 集韻 it appears with the *fǎnqiè* 反切 spelling 上演切. The character 鱸 is apparently an allograph of 鱸, which is defined by the *Shuōwén* as the ‘name of a fish’. Duàn Yùcái 段玉裁 in his commentary on the text says, “the yellow eel, eaten by people at present.” The *Guǎngyùn* has the character 鱸 with the *fǎnqiè* 常演切 which is equivalent to the *Jíyùn fǎnqiè* for 鱸 (*žjăn*:.). In the OC system of Baxter, 鱸 clearly should have **a* vocalism as the Mǐn forms also confirm. An **(h)* is given because of the Mǐn aspiration.

- (8) 健 ‘healthy’. EC **gan*. QY *gjpñ*-. CDC **gian*⁶. XM [kiã⁶], FZ [kian⁶], JO [kyen⁵], JY [kyen⁶].

The JO tone is irregular.

5.2 EC **on*

- (9) 斷 ‘break’. EC **don*. QY *duân*:. CDC **don*⁴. XM [tɲ⁶], FZ [taun⁶], JO [ton⁶], JY [tun⁵].

- (10) 卵 ‘egg’. EC **(h)lon*. QY *luân*:. CDC **lon*⁴. XM [nɲ⁶], FZ [laun⁶], JO [son⁶], JY [sun⁵].

For this word I have proposed a Common Mǐn initial **lh* (Norman 1973). This initial is reconstructed when Eastern Mǐn dialects have *l*- and Mǐnběi dialects have *s*-. (Southern Mǐn dialects do not distinguish /n/ and /l/ phonemically.) ‘Egg’ is a typical example of this correspondence. Several other examples are shown below:

螺 ‘snail’. EC **(h)’loy*. QY *luâ*. CDC **lo²*. XM [lɛ²], FZ [løy²], JO [so⁵], JY [sui²].

籃 ‘basket’. EC **(h)’lam*. QY *lâm*. CDC **lam²*. XM [nã²], FZ [lan²], JO [saŋ⁵], JY [saŋ²].

露 ‘dew’. EC **(h)’la*. QY *luo-*. CDC **lu⁶*. XM [lɔ⁶], FZ [lou⁵], JO [su⁶], JY [su⁶].

聾 ‘deaf’. EC **(h)’lung*. QY *lung*. CDC **lung²*. XM [lan²], FZ [løyŋ²], JO [soŋ⁵], JY [soŋ²].

六 ‘six’. EC **(h)luk*. QY *ljuk*. CDC **liuk⁸*. XM [lak⁸], FZ [løyŋ⁸], JO [ly⁴], JY [so⁸].

The JO form is anomalous and must be considered a loan, not an authentic Mǐnběi form.

笠 ‘rainhat’. EC **(h)lip*. QY *ljəp*. CDC **lip⁸*. XM [lueŋ⁸], FZ [liŋ⁸], JO [se⁶], JY [se⁸].

In dialects of the Shàowǔ area, these s- initial words corresponding to QY *l-* have upper register tones, suggesting an earlier voiceless element. Some of the same words all have upper register tones in Hakka dialects as well: Méixiàn [lam¹ me⁰] ‘kind of basket’, [liuk⁷] ‘six’. Some early loans in Miao-Yao and Tai also suggest that clusters may be at the root of this phenomenon:

‘six’. Proto-Tai **xrok*, Yao Mian [tɕiu⁷], Yao Biaomin [klɔ⁷].

‘rainhat’. Proto-Tai **kliop⁷*.

‘snail’. Yao Mian [kuei¹], Yao Bianmin [kli¹], Proto Miao-Yao **klwei¹* (Wáng & Máo 1995).

(11) 管 ‘pipe, tube’. EC **’kon*. QY *kuân*:. CDC *kuon³*. XM [kŋ³], FZ [kuoŋ³], JO [koŋ³], JY [kuŋ³].

In Mǐn dialects this word has a different vocalism from *guān* 官 ‘official’. This difference is reflected in EC. An alternate way of writing *guǎn* 管 is 筧. In Baxter’s theory of OC vocalism, 官 has **a* vocalism and is reconstructed **k^wan*, but 管 rimes with words having **o* vocalism; moreover, the phonetic of 筧 implies **on* (Baxter 1992:381f.).

- (12) 關 ‘close, (mountain) pass’. EC **kron*. QY *kwan*. CDC **kuan*. XM [kuāi¹], FZ [kuoŋ¹], JO [kueŋ¹], JY [kyeŋ¹].

Mǐndōng dialects like Fúzhōu have an **o* vocalism for this word. The XM form seems to imply **a* vocalism; the JO and JY forms also seem aberrant. Apparently only Mǐndōng forms reflect the earlier vocalism.

- (13) 飯 ‘cooked rice’. EC **bon*. QY *bjwɒn-*. CDC **van⁶*. XM [pŋ⁶], FZ [puoŋ⁶], JO [pueŋ⁶], JY [puŋ⁶].

Baxter considers words having 反 as a phonetic to have **a* vocalism. Mǐndōng forms point to **o* vocalism in EC. However, an alternative way of writing 飯 *fàn* is 餚; according to Baxter 弁 has **o* vocalism. This word provides a good example of dentilabialization. Karlgren reconstructed only bilabials for Ancient Chinese. Dentilabialization appears for the first time in the written record only in mid-Táng (Jiǎng 1994:57). With the exception of Mǐn and Hakka, dentilabials are found in modern dialects and are reconstructed for CDC. There has been much discussion concerning the phonological condition responsible for this important development (Chao 1941, Pulleyblank 1986). If one takes a QY reconstruction as the starting point for explaining dentilabialization, it is very difficult to find a simple and satisfying condition. One possible reason for this is that the condition of dentilabialization may not be present in the phonological inventory of the QY. In my 1994 article “Pharyngealization in Early Chinese”, I held that the QY categories are an unnatural phonological system; I suggested that these categories grew out of an earlier more natural stage of language which I called Early Chinese. At that time I realized that one could derive CDC directly from EC without going through an intermediate QY stage. (It should be remembered, however, that EC is in large part based on QY categories.) What I would suggest is that the particular arrangement of elements in the QY is not necessarily an essential stage in the history of Chinese.

Let us look at the word under discussion here. The EC reconstruction for 飯 is **bon* and the CDC form is **van*. If we hypothesize that dentilabialization occurred when a bilabial preceded a rounded vowel (either **u* or **o*), then we can suppose that the development was as follows:⁵

EC **bon* > **von* > CDC **van*

⁵ This is similar to an idea proposed by South Coblin in a 1991 article on the conditions for dentilabialization.

In this way the QY reconstruction *bjwɔn-* is bypassed and a much simpler picture is obtained. Not every EC final that subsequently caused dentilabialization had a rounded vowel. For example, a word like *fū* 夫 has an EC form **pa*; hence, dentilabialization did not move directly from EC to CDC. An intermediate stage in which certain EC unrounded vowels became rounded is necessary to explain dentilabialization. In the case of 夫, for example, we must posit that a change from EC **pa* to **po* took place before the **p* became a labiodental: **pa* > **po* > **fo* > **fu*. Such a scenario is both simpler and more natural than other proposals; it is also attested in Hàn riming practice (Luó & Zhōu 1958).

- (14) 船 ‘boat’. EC **(n)don*. QY *džjwän*. CDC **jion*. XM [tsun²], FZ [suŋ²], JO [yeŋ³], JY [yeŋ⁹].

The Coastal Mǐn dialects, exemplified here by XM and FZ, reflect **u* vocalism; the Mǐnběi forms point to an **o* vocalism. The prenasalization is required by Mǐnběi forms (Norman 1996).

- (15) 遠 ‘far’. EC **(h)won*. QY *jwɔn*. CDC **yon⁴*. XM [hŋ⁶], FZ [huoŋ⁶]; cf. Yǒngān [syẽ⁴], Shàowǔ [fiẽ³] (< **hyen*).

Yakhontov (1960) was the first to suggest a systematic contrast between **a* and **o* vocalism in the OC *yuán* 元 rime group. Subsequently his theory was adopted by Bodman (1980), Starostin (1989) and Baxter (1992). I personally find the idea very attractive at a general level. The sorting out of **a* and **o* vocalism before **n* is a complex task employing early rimes and graphic structure; hence there is frequently room for disagreement about particular words; see what is said about 飯 above. More importantly, my goal is not to produce another OC reconstruction based solely on documentary data. What I want to do is to uncover an early stage of Chinese that can serve as an anchor for Chinese linguistic evolution, particularly that of Chinese dialects. Both *fàn* 飯 and *yuǎn* 遠 are cases in point; for both words Baxter has **a* vocalism. If one takes into account Mǐn evidence, **o* vocalism seems more appropriate; moreover, in the system presented here, a rounded vowel is required to explain the dentilabialization of the **b* of 飯. I am tempted to say that all the words in the QY rime *yuán* 元 had **o* vocalism in EC, but further study is needed.

5.3 EC **en*

- (16) 辮 ‘braid’. EC *(*n*)*ben. QY *bien*-. CDC **bian*⁴. XM [pĩ⁶], FZ [pieŋ⁶], JO [pieŋ⁴], JY [pieŋ⁶]. Cf. Shíbēi [biŋ⁵], Chóngān [wiŋ⁵].

The JY form is probably learned since it does not have the expected evidence for a voiced initial; the popular word for ‘braid’ in JY is [ŋia⁸ tsie³].

- (17) 前 ‘front’. EC *’*dzen*. QY *dzien*. CDC **dzian*². XM [tsiŋ²], FZ [seiŋ²], JO [tshien⁵], JY [tshien²].

- (18) 蓮 ‘lotus’. EC *(*h*)*len. QY *lien*. CDC **lian*². FZ [leiŋ²], JO [laiŋ⁵], JY [laiŋ²].

The *(*h*) is suggested by the early Chinese loan in Vietnamese *sen* ‘lotus’.

- (19) 肩 ‘shoulder’. EC *’*ken*. QY *kien*. CDC **kian*¹. XM [kiŋ¹], FZ [kien¹], JO [kaiŋ¹], JY [kaiŋ¹].

- (20) 硯 ‘inkstone’. EC *(*h*)*ngen. QY *ngien*-. CDC **ngian*⁶. XM [hĩ⁶], FZ [ŋien⁵], JY [ŋaiŋ⁶].

- (21) 面 ‘face’. *EC *(*h*)*men. QY *mjän*-. CDC **mian*⁶. XM [bin⁶], FZ [meiŋ⁵].

The presence of *(*h*) is indicated by the FZ tone.

- (22) 連 ‘Lian, a surname’. EC *(*h*)*len. QY *ljän*. CDC **lian*².

The only relevant Mǐn form is JY [sueŋ²].

- (23) 剪 ‘shear’. EC *’*tsen*. QY *tsjän*-. CDC *’*tsian*³. FZ [tseiŋ³], JO [tsaiŋ³], JY [tsaiŋ³].

- (24) 辦 ‘manage’. EC *’*bren*. QY *băn*-. CDC *’*ban*⁶. FZ [paiŋ⁶], JO [paiŋ⁶], JY [paiŋ⁶].

Cf. Fúqīng [peŋ⁶].

- (25) 斑 ‘speck on the skin’. EC *(*n*)*pren. QY *pan*. CDC *’*pan*¹. FZ [peiŋ¹], JY [waiŋ⁹].

- (26) 揀 ‘select’. EC *’*kren*. QY *kan*-. CDC *’*kan*³. XM [kiŋ³], JO [kaiŋ³], JY [kaiŋ³].

- (27) 閑 ‘leisure’. EC *(*n*)*gren. QY *yǎn*. CDC *’*han*². XM [iŋ²], FZ [eiŋ²], JO [aiŋ³].

For the initial, see remarks under item (4).

5.4 EC *in

- (28) 扁 ‘flat’. EC *’*pin*. QY *pien*:. CDC **pian*³. XM [pĩ³], FZ [pieŋ³], JO [piŋ³], JY [pieŋ³].

Chóngān [wiŋ⁹] implies an EC *(*n*)’*p*.

- (29) 天 ‘sky’. EC *’*thin*. QY *thien*. CDC **thian*¹. XM [thĩ¹], FZ [thieŋ¹], JO [thiŋ¹], JY [hieŋ¹].

- (30) 年 ‘year’. EC *(*h*)*nin*. QY *nien*. CDC **nian*². XM [nĩ²], FZ [nieŋ²], JO [niŋ⁵], JY [nieŋ²].

The *(*h*) is shown by Cháoyáng 朝陽 [hĩ²] and the upper register tone in Shàowǔ [nin⁷].

- (31) 眠 ‘sleep’. EC *’*min*. QY *mien*. CDC **mian*². XM [bin²], FZ [miŋ²], JO [meŋ²], JY [miŋ²].

In Mǐn dialects *mián* 眠 is not the ordinary word for sleep but it occurs in a number of expressions referring to sleeping: XM [bin² baŋ⁶] ‘to dream’, FZ [tshuŋ³ miŋ²] ‘sleepy’, JY [miŋ² moŋ⁶] ‘dream’.

- (32) 鱗 ‘fish scale’. EC *(*h*)*lin*. QY *ljen*. CDC *lin*². XM [lan²], FZ [liŋ²], JO [saiŋ⁵], JY [saiŋ²].

- (33) 緊 ‘tight’. EC **kin*. QY *kjen*:. CDC **kin*³. XM [kin³], FZ [kiŋ³], JO [keŋ³], JY [kiŋ³].

There seem to be no rhotic syllables having EC final **in* except where an **r* is required for the initial: *zhēn* 榛 ‘hazel’ EC **tsrin*, QY *tsjen*. CDC **cen*¹.

5.5 EC *un

The remaining examples are from the OC *wén* 文 rime group. Baxter and others have proposed two main vowels for this group; Baxter has **i* and **u* for his OC system. This interpretation is influenced by such syllables in the QY where we find both *kāikǒu* 開口 and *hékǒu* 合口 forms; in many ways the arguments in favor of two different

main vowels are similar to those in favor of dividing the traditional *yuán* group into several finals having different main vowels: **an*, **on* and **en*. Above we saw how the Mǐn dialects in a general fashion bear out this interpretation, but when we look at *wénbù* 文部 words in light of the same dialects, a rather different situation is revealed. Instead of seeing a general agreement with the two vowel hypothesis, what we observe is just the opposite: a tendency in Mǐn dialects to have rounded vowels in those words which in the QY had unrounded vowels. Examples of such words are shown below:

(34) 跟 ‘follow’. EC **kun*. QY *kən*. CDC **ken¹*. XM [kun¹], FZ [kyŋ¹].

(35) 根 ‘root’. EC **kun*. QY *kən*. CDC **ken¹*. XM [kun¹], JO [kyeŋ¹], JY [kyeŋ¹].

(36) 恩 ‘favor’. EC **un*. QY *ʔən*. CDC **en¹*. XM [un¹], FZ [ouŋ¹].

(37) 痕 ‘scar’. EC **gun*. QY *ɣən*. CDC **hen²*. XM [hun²], FZ [houŋ¹].

(38) 振 ‘shake, tremble’. EC **tun*. QY *tʃjueŋ-*. CDC **cin⁵*. XM [tsun⁵], FZ [tsuŋ¹].

Note the tonal anomaly in the FZ form.

(39) 忍 ‘endure’. EC **nun*. QY *nʒjen:*. CDC **nin³*. XM [nuŋ³], FZ [nuŋ³].

(40) 巾 ‘towel’. EC **kun*. QY *kjen*. CDC **kin¹*. XM [kun¹], FZ [kyŋ¹], JY [kyeŋ¹].

(41) 近 ‘near’. EC **gun*. QY *gʒən:*. CDC **gin⁴*. XM [kun⁶], FZ [køyŋ⁶], JO [kyeŋ⁶], JY [kyeŋ⁵].

(42) 銀 ‘silver’. EC **ngun*. QY *ngjen*. CDC **ngin²*. XM [gun²], FZ [ŋyŋ²].

(43) 隱 ‘hidden’. EC **un*. QY *ʔjən:*. CDC **in³*. XM [un³], FZ [yŋ³].

All of the words above are *kāikǒu* words in the QY; that the Mǐn forms all have rounded vowels suggests that the conventional interpretation which sees a need for two contrasting vowels in the *wén* rime group may be incorrect. Perhaps what we see in the QY syllabary is a case of ancient dialect mixture whereby words in original **un* began to merge with words in **in*. The Mǐn forms harken back to a language in which the merger did not take place.

In support of this hypothesis, let us examine the common word *bǐ* 筆 ‘writing instrument’. *Bǐ* is placed in the OC *wù* 物 rime group, the non-nasal counterpart of the *wén* group. To my knowledge there is no evidence in Chinese dialects for a rounded vowel in this word, but when we look at early loans from Chinese in peripheral languages strongly influenced by Chinese at an early date, we do see evidence for a rounded vowel: Vietnamese *bút*, Japanese *hude* < **pude* (but see Martin 1987 for a different interpretation), Korean *pus*. These forms probably reflect an EC **put*.

Further examples of words in the *wén* rime group are shown below; these words all have rounded vowels in the QY.

- (44) 本 ‘origin, volume’. EC **’pun*. QY *puən*:. CDC **pun*³. XM [pun³], FZ [puoŋ³], JO [poŋ³], JY [puŋ³].
- (45) 豚 ‘piglet’. EC **(h)’dun*. QY *duən*. CDC **dun*². XM [thun²], FZ [thouŋ²].
- (46) 頓 ‘a meal’. EC **’tun*. QY *tuən*-. CDC **tun*⁵. XM [tŋ⁵], FZ [tauŋ⁵], JY [tuŋ⁵].
- (47) 溫 ‘warm’. EC **’un*. QY *ʔuən*. CDC *un*⁵. XM [un¹], FZ [uŋ¹], JY [oŋ¹].
- (48) 分 ‘divide’. EC **pun*. QY *pjuən*³. CDC **fun*¹. XM [pun¹], FZ [puoŋ¹], JO [puen¹], JY [puŋ¹].
- (49) 春 ‘spring’. EC **thun*. QY *tshjuen*. CDC **chiun*¹. XM [tshun¹], FZ [tshuŋ¹], JO [tshoin¹], JY [then¹].
- (50) 雲 ‘cloud’. EC **(h)wun*. QY *juən*. CDC **yun*². XM [hun²], FZ [huŋ²].

There are a few second division words in the *wén* group which can be reconstructed with **-run* for EC:

- (51) 艱 ‘difficult’. EC **krun*. QY *kǎn*. CDC **kan*¹.
- (52) 眼 ‘eye’. EC *ngrun*. QY *ngan*:. CDC **ngan*⁴.
- (53) 限 ‘limit’. EC **grun*. QY *yǎn*:. CDC **han*⁴. XM [an⁶], FZ [aiŋ⁶].

The two Mǐn forms both mean ‘to set a limit, to fix a specific time’.

6. Conclusion

I have outlined here a model for tracing the phonological development of modern Chinese dialects. CDC was probably one of several daughter languages of Early Chinese. The relationship between EC and Common Mǐn is not so clear. Common Mǐn may have been a sister dialect to EC but it is premature to say anything with certainty. We must always remember that reconstructed languages, whether they be called common systems or protolanguages, are abstractions. Their essence consists in the mapping out of correspondence relationships among a particular group of languages or dialects. Being abstract entities, EC and CDC lack any inherent temporal or spatial dimensions; they are chiefly heuristic devices and can always be revised or improved with better insight or the input of new data. Logically CDC precedes the development of any of the modern non-Mǐn dialect groups; if we could establish the date for the formation of any one of the modern Chinese dialect groups, we could arrive at an approximate date after which the common dialectal system, of which CDC is a model, may have existed. Given such a determination, a temporal dimension for Common Mǐn might be established, but in the main, we will probably have to be satisfied with a relative chronology at present.

Abbreviations

Reconstructions and earlier language stages

CDC	Common Dialectal Chinese
EC	Early Chinese
OC	Old Chinese
QY	<i>Qièyùn</i>

Dialects

BJ	Běijīng 北京	MX	Méixiàn 梅縣
FZ	Fúzhōu 福州	NC	Nánchāng 南昌
GZ	Guǎngzhōu 廣州	SZ	Sūzhōu 蘇州
JO	Jiàn'ōu 建甌	XM	Xiàmén 廈門
JY	Jiànyáng 建陽	YZ	Yángzhōu 揚州

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漢語方言演變的模式

羅杰瑞

華盛頓大學

就漢語方言的比較研究方法而言，傳統的方式是把方言裡的每個音類和隋朝《切韻》書裡的聲母、韻母以及調類一一進行比較。本文提出了另一種模式。根據這個模式，漢語方言的發展可以分為兩個歷史階段：漢語方言通音 (CDC) 的階段和早期漢語 (EC) 的階段。漢語方言通音基本上就是根據《切韻》音類在非閩語的現代漢語方言實際出現的情況，對《切韻》音系進行簡化而成的；早期漢語是以清代語文學家建立的古音體系為基礎，再根據 Norman (1994) 提出的咽音化的理論加以分析和調整。按這幾個步驟得出來的結果是，非閩語的現代漢語方言的形式可以從漢語方言通音中推演出來，並不需要參考《切韻》裡的音類；而早期漢語體系則解釋了清代學者提出的古音系統裡的區別性特徵。有關漢語方言通音和早期漢語具體所指的歷史時期還有待商榷，目前尚無定論。

關鍵詞：《切韻》，漢語方言史，漢語音韻學，漢語方言，古代漢語，漢語通音，閩方言

史諱中的音韻問題*

何大安
中央研究院

新會陳援庵先生的《史諱舉例》，是一本史學名著。這本書採摭史書中的避諱事實，歸納成通例八十二條；詳明有據，是歷史學者不可缺少的重要參考書籍。由於避諱基本上是一種語用現象，因此這本書對語言學家的幫助，無疑同等重要。不過，陳先生在書中對史諱所牽涉到的音韻問題多有忽略，甚至還有一些錯誤的論斷，令人不無遺憾。本文之作，即在為之補正。重點包括三部分：（一）訂正原書錯誤；（二）提出「嫌名同音」、「改字諱音」兩項新例；（三）就避諱的語用史考察，略作申說。

關鍵詞：避諱，陳垣，《史諱舉例》，「嫌名同音」，「改字諱音」

一

首先要改正陳先生的錯誤。《史諱舉例·第五十三·南北朝父子不嫌同名例》云：

後魏獻文帝名弘，其子孝文帝名宏。宋明帝名彧，其子廢帝名昱。父子不避嫌名。

陳先生認為「弘宏」、「彧昱」是嫌名，這是錯誤的。「弘」，《廣韻》登韻胡肱切，匣母一等。「宏」，耕韻戶萌切，匣母二等。「彧」，屋韻於六切，影母三等。「昱」，屋韻余六切，喻母（以類）三等。南北朝時期，一二等有別，影母和喻四聲母亦截然可分，所以「弘宏」、「彧昱」兩兩不同音。既不同音，即非嫌名。以此定為「不嫌同名」，有乖事實。

* 本文承兩位匿名審查人惠予審閱，並提供修改意見；十分感謝。今已遵囑訂正。又，編輯委員會所示之英文審查意見書，其第一段對本文內容有切要之敘述。自忖無可更贊一辭，因請編輯委員會代為徵得同意，引為本文英文提要。特此著明，並向兩位審查人及編輯委員會敬致謝忱。

王建的《中國古代避諱史》承襲了陳先生的錯誤，¹而又加以擴大。王先生根據以下五條理由，認為無論北朝、南朝，都既避諱、又不避諱；以印證陳先生「南北朝避諱，實無定制」之說：

- (一) 拓跋珪時，北魏已避正諱「珪」及嫌名「邽」；
- (二) 獻文、孝文父子不避嫌名；
- (三) 南齊文惠太子蕭長懋以避曾祖蕭承之之嫌名而不就祕書丞，「承丞」同「署陵切」；
- (四) 蕭道成的「成（是征切）」與「承丞（署陵切）」讀音相近，但官名、地名帶「丞、承」者卻不改避；
- (五) 宋明帝、廢帝父子不避嫌名；

其實南北朝的避諱有無定制，容可另作討論，但卻與這五條理由完全無關。其中(二)、(五)之誤已如上述，(四)的「成（是征切）」在清韻，「承丞（署陵切）」在蒸韻。南朝清蒸不同韻部，「成」與「承丞」雖似「音近」，實不同音。因此(二)、(四)、(五)的「不避嫌名」都不能成立；而(一)、(三)乃是避嫌名的正例。若單就(一)、(三)兩點而論，既屬正例，就不可謂「實無定制」。²

二

造成以音近為嫌名的錯誤，可能有兩個原因。第一個是來自對鄭玄注經的疑惑。鄭玄在解釋《禮記·曲禮上》「禮不諱嫌名」時說：

¹ 有類似誤解的學者，不只陳先生與王先生。華東師範大學的沈起煒教授在他的《黎東方講史之續·細說魏晉南北朝》一書中也曾疑惑地說：「父親名弘，兒子名宏，讀音完全相同，這名字起得好奇怪，不知道當時是怎麼考慮的。」（頁255）

² 王先生原舉(四)之中，有一個地名「承縣」不避蕭承之正諱「承」的例子，因此不能與不避嫌名「丞」一概而論。查王先生《史諱辭典》頁300-301所列南齊〈避諱一覽表〉，避「承丞」者共有八例。八例之中，雖有宮門之名，卻絕無縣邑在內。按，《禮記·檀弓下》記天子避諱之禮曰：「卒哭而諱。……宰夫執木鐸以命于宮曰：『舍故而諱新。』自寢門至於庫門。」可見避諱一事，本行於庫門宮禁之內。絕無縣邑，恐怕正是緣古禮，而非「無定制」。又，前文(三)文惠太子之不就祕書丞，事在宋時。當時齊國未建，所諱當為家諱。尊家諱而不就官，乃揚世芬、輕朝命之表現。於禮無可說，蓋南朝之士習如此。

嫌名，謂音聲相近。若「禹」與「雨」，「丘」與「區」。

「禹雨」上古兩漢在魚部、聲母相同，《廣韻》同讀麌韻王矩切。直到今天的國語，都是同音。作為嫌名，自無問題。但是「丘區」就讓人迷惑了。《廣韻》「丘」在尤韻而「區」在虞侯兩韻，上古兩漢「丘」屬之部、「區」屬侯部，今天的國語讀音也不相同。那麼鄭玄所謂的「音近」，就不必一定是「音同」。「音不同」，似乎也可以成為嫌名。

不過，如果嫌名可以包括「音不同」，那麼問題就嚴重了。首先，諱字本同密咒，讀音惟求準確。音既不同，即已喪失作諱的効力與目的。從本原上講，就已經說不通。其次，避諱最初只避正諱一字，增避同音為嫌名，已屬泛濫。如果不同音也要避諱，那麼就會諱之不盡，而使一國之人鉗口不敢言說。所以鄭玄的「音近」，只能是「音同」。「音不同」云云，絕不可從。

幸好六朝經師已經看出鄭玄的「音近」容易產生誤解，因此陸德明在《經典釋文》中不但針對鄭玄的「丘與區」加注了反切「並『去求反』」，以強調二者同音，還特別對經文的「不諱嫌名」作了以下的補充：

案，漢和帝名肇，不改京兆郡。魏武帝名操，陳思王詩云：『修阪造雲日。』是不諱嫌名。

「肇兆」《廣韻》同小韻治小切，「操造」《廣韻》同號韻七到切。陸德明的處理，說明了在他的認識裡，鄭玄的「音近」，只能是同音。

第二個疑惑，來自史諱中似乎存在「不同音」嫌名的實例。不過，這恐怕是韻書不同音的字，在作諱當時的某些方言裡已經同音的緣故。例如唐玄宗名隆基。「基」，《廣韻》之韻居之切；它和微韻居依切的「機」本不同音。唐代宗名豫。「豫」，《廣韻》御韻羊洳切；它和遇韻羊戍切的「諭」也不同音。但是韓愈在〈諱辨〉裡卻說：

今上章及詔，不聞諱「潏、勢、秉、機」也。惟宦者宮妾，乃不敢言「諭」及「機」，以為觸犯。

「潏、勢、秉」，分別是唐高祖李淵之祖李虎、唐太宗李世民、唐高祖李淵之父李昺等三人的嫌名。「潏虎」、「勢世」、「秉昺」兩兩同音，舉作對比，沒有問題。但「機基」不同音、「諭豫」不同音，卻為什麼「宦者宮妾，乃不敢

言」呢？關鍵就在「宦者宮妾」與「上章及詔」所用的語體、語域不同。「上章及詔」必須用官方標準語，而「宦者宮妾」所操則不必。因為不必，就有方音、時音、家人語介入的可能。語音演變，有遲有速。五代時後梁諱朱溫父名「誠」，嫌名有「成城承丞」諸字，恰與上節蕭道成父子諱字所涉相同。但南齊之時「成、承」不同韻，而唐末五代則「清、蒸」兩韻趨同一攝。³ 又如唐避高宗太子李弘諱，嫌名有「宏」。「弘宏」二字亦與北魏獻孝父子名諱相同。這正可見北魏一二等之分，唐初已經泯然不別。如果不明白語音有過變化，因而同一批字讀音有同有不同，自然就會以此律彼，轉生疑惑。

嫌名之見諸載籍，始於漢武帝劉徹之避「轍」。「徹轍」當時，本自同音。從此以後，歷代凡有論及嫌名者，莫不以同音為依準。《舊唐書·懿宗本紀》咸通二年載：

衛洙奏狀稱：「蒙恩除授滑州刺史，官號內一字與臣家諱音同。雖文字有殊，而聲韻難辨。請改授閒官者。」敕曰：「嫌名不諱，著在《禮》文。成命已行，固難依允。」

衛洙之父名「次」。「次」，《廣韻》至韻七四切；「刺史」的「刺」，則音寘韻七賜切。至寘為脂支的去聲韻，而支脂之官韻已經通用，因此「次刺」二字為「音同」。這一段奏答，說明了「嫌名」的特點是「雖文字有殊，而聲韻難辨。」定義極為明白。其他各朝的類似記載，王先生的《中國古代避諱史》多有引述，這裡不再列舉。總而言之，「嫌名同音」應該是一則通例。如逢例外，必定是語音發生了變化。

三

陳先生《史諱舉例·第一·避諱改字例》云：

避諱常用之法有三：曰改字，曰空字，曰缺筆。

改字原以同義互訓之字相代，即所謂「諱訓」。今所見自春秋至兩漢之例，

³ 「清、蒸」兩韻共一攝，見於智公所編《四聲等子》。智公為五代宋初人。

莫不如此。但是其後踵事增華，改字亦有以音近或音同之字相代者。例如：⁴

- (六) 北魏避獻文帝拓跋弘正諱「弘」。諱訓為「洪、泓」，又改字「恆」。
「弘恆」義不類。「弘」，登韻胡肱切，合口。「恆」，登韻胡登切，開口。此以同韻開口代合口。(頁 304)
- (七) 唐避高祖李淵父昞正諱「昞」、嫌名「丙炳曷秉」。諱訓為「明、景」等，但亦有諱「昞」改字為「秉」者。「秉」於義訓既不類，又可兼為嫌名。其為改字，正屬音同。(頁 316-317)
- (八) 唐避太宗李世民正諱「世」、嫌名「勢」。諱訓為「代、時、日、嗣」等，但亦有諱「世」改字為「勢」者。「勢」以嫌名兼為改字，其例與(六)同。(頁 322-324)
- (九) 唐避代宗李豫正諱「豫」、嫌名「與」。改兗州「方與」為「魚臺」。嫌名「與」，當讀《廣韻》御韻羊洳切，喻母(以類)三等、去聲。「魚」，《廣韻》魚韻語居切，疑母、平聲。此兼同韻次濁相代、四聲相代。(頁 337)
- (十) 宋避欽宗趙桓正諱「桓」、偏旁諱「烜」。諱訓有「威」，改字有「亘咍」，《廣韻》、《集韻》上平聲「二十六桓」，南宋紹定重刊《禮部韻略》改為「二十六歡」。桓，《廣韻》桓韻胡官切，匣母。「歡」，《廣韻》桓韻呼官切，曉母。此以同韻清母代濁母。(頁 362)
- (十一) 清避高宗弘曆正諱「弘」。諱訓有「宏」，改字有「紅」。「弘、宏、紅」三字，元代《中原音韻》同入東鍾陽平「紅」小韻，北音顯已同音。「宏」字猶可以義通，「紅」字則藉音甚明。此亦同音相代，絕無可疑。(頁 380)

這種音近或音同的改字，可以仿「諱訓」之例，稱為「諱音」。陳先生所說的「缺筆」，包括空字，則可稱為「諱形」。⁵ 原來避諱所要迴避的，是形音義凝合而成的「字」。「嫌名」有其音而無其義，當然不必避諱，所以說「《禮》不諱嫌名」。「二名」，因為需要二字連用才有具體的指稱，分開使用即無此指稱，也不必避諱，所以說「二名不偏諱」。至於替代正諱的改字，無論是「諱訓」、「諱形」或是「諱音」，因為都不具形音義的全體，不等於所避的正字，所以作為替

⁴ 以下各例，皆自王先生《史諱辭典·避諱一覽表》檢出。酌加疏釋，以供討論。各條所附頁碼，即原表出處。

⁵ 空字為刪去諱字，可視為以「零」為「諱形」。

代，於理都無不可。不過正諱雖然可以避而不言，但是其所指涉，卻不可以從話語中完全除去，否則溝通即有困難。因此替代之字或字組，必須要能提供足夠之暗示，以助見意。而所謂「諱形」、「諱音」、「諱訓」，其實就是提供「形」、「音」、「義」之暗示訊息的替代字。由此看來，改字於「諱訓」、「諱形」之外更有「諱音」，乃是極為合理而自然的事情。史諱之中，應該存此一例。

四

史諱可以證音韻史，此理極為易曉，毋待贅言。姑舉一例，以概其餘。《北齊書·杜弼傳》載：

相府法曹辛子炎咨事，云：「須取署。」讀署為樹。高祖大怒，杖之。弼進曰：「《禮》：『二名不偏諱。』孔子言微不言在，言在不言微。子炎之罪，理若可恕。」

高祖即高歡，其父名「樹生」。辛子炎咨事，讀「須取署」為「須取樹」。未犯「樹生」二名，所以杜弼認為「理若可恕」。「署」，《廣韻》御韻常恕切；「樹」，遇韻常句切。《顏氏家訓·音辭》云：「北人以庶為戍，以如為儒。」「庶」，《廣韻》御韻商署切；「戍」，遇韻傷遇切。「如」，《廣韻》魚韻人諸切；「儒」，虞韻人朱切。此皆魚虞不分之例，為南北朝時期北方語音的特點之一。高歡「署樹」之諱，正可與《家訓》互證。

在另一方面，史諱中的音韻現象於語用史之理解，也同樣大有裨益。試舉二例，申說如下。

首先，可以從諱字來看正音的轉變。

《經典釋文》為六朝音義之書，其釋音有「如字」與「他音」之分。如字不作音。他音則出反語，以見別義。⁶ 例如：

《春秋公羊傳·文公六年》：「親在，朝朝莫夕。」《釋文》：「朝朝，上如字，下直遙反。」

「朝」字《廣韻》有兩讀，一見宵韻陟遙切：「早也。又旦至食時為終朝。」

⁶ 《釋文》他音有為假借而作者，與此所論無涉，姑從略。

又朝鮮，國名。又姓。」一見宵韻直遙切：「朝廷也。《禮記》曰：『諸侯於天子，五年一朝。』又姓。」《釋文》的「直遙反」，相當於《廣韻》的直遙切。而《廣韻》的陟遙切，就相當於《釋文》不作音的「如字」。

凡是一字多音，《廣韻》會逢音注切，或注直音。《釋文》則以其中之一為如字，不作音；而於他音注反語或直音。《廣韻》為韻書，故逢音皆注。《釋文》解釋經義，只有遇到非常音時始需出注，常識之音即不假增繁。這是兩者的區別。因此《釋文》凡標「如字」的，皆屬常讀；作他音的，則為又讀。不過除非需要對比或特別的提醒，否則「如字」很少出現。因為既是常讀，而又沒有誤讀為他音可能的時候，人人見其字而識其音，不需要再出如字，以免多此一舉。

在唐代的避諱字中，有一個高宗名諱的「治」字。治，《廣韻》有三讀：

平聲之韻直之切：「水名，出東萊。亦理也。」

去聲至韻直利切：「理也。」

去聲志韻直吏切：「理也。」

上文提到唐代官韻支脂之三韻通用，因此三讀中的「直利」、「直吏」已無實質區別；⁷ 三讀其實就是平去兩讀。那麼兩讀之中，孰為正諱呢？避諱通例，一字多音時只以其一為正諱，其他又音則無需相避。因為音義既已不同，可以視作他字。唐代避「治」字時，其諱訓有「持」，而嫌名有「稚」。「持」訓為執，與治理義相類，故為諱訓。但「持」音《廣韻》之韻直之切，恰與「治」之平聲讀相同。「稚」音《廣韻》至韻直利切；其所犯嫌者顯為「治」之去聲，而非平聲。「持」字原亦有作「諱音」之可能，不過凡避嫌名，都只見「稚」之一字。⁸ 因此正諱必是去聲之「治」，而非平聲之「治」，則可斷言。

《經典釋文》中「治」字有兩讀。一是去聲，讀「直吏反」或「音值」，共二百八十見。一是平聲，讀「如字」或「音持」，纔九見。下面這段替《莊子·郭象注》所作的音注，很準確地劃出了兩種音讀的界限：

⁷ 「治」字从「台」得聲，上古屬之部。從來源上看，「治」入志韻為正例，入至韻為例外。不過《全本王仁昫刊謬補缺切韻》在去聲韻目「至」韻之下特別注明「夏侯與『志』同」，可見「至志」兩韻之合流，南朝梁時夏侯該就已經如此。我們推測，為了填回《切韻》分韻的框架，所以「治」字才會同時出現在「至志」兩個韻裡，而又沒有意義上的區別。

⁸ 除「治、稚」外，唐人亦多避「雉」字。然此係高宗小名「雉奴」之正諱，非「治」之嫌名。不可與「稚」混為一談。

《莊子·逍遙遊》：「許由曰：『子治天下，天下既已治也。』」

《注》：「夫能令天下治，不治天下者也。故堯以不治治之，非治之而治者也。今許由方明既治則無所待之，而治實由堯，故有『子治』之言，宜忘言以尋其所況。而或者遂云治之而治者堯也，不治而堯得以治者許由也，斯失之遠矣。夫治之由乎不治，為之出乎無為也。取於堯而足，豈借之許由哉！若謂拱默乎山林之中，而後得稱無為者，此莊老之談所以見棄于當塗。當塗者自必于有為之域而不反者，斯之由也。」

《經典釋文》：「『天下治』，直吏反。下『已治』，《注》『天下治』、『而治者也』、『既治』、『而治實』、『而治者』、『得以治』皆同。」

《釋文》挑出了八個帶「治」的字組，給了「直吏反」的注音。我們將引文中被《釋文》挑出的八個字組之下加點識，以供對照。加點的「治」字都讀去聲。不加點的，則是如字讀，讀平聲。凡平聲的「治」都是動詞，去聲的「治」都是形容詞；沒有一個例外。「治天下」的治讀平聲，「天下治」的治讀去聲。

如字和正諱代表了最平常的用法，也就是當時的正音。以「治」字為例，六朝的正音是平聲，唐代的正音是去聲。六朝保持了「治」字的別義讀法，唐代已經喪失了這種分別。韓愈在〈諱辨〉中抨擊嫌名時，曾經說漢代人：

諱呂后名「雉」為「野雞」，不聞又諱「治天下」之「治」為某字也。

「雉」，《廣韻》上聲旨韻直几切。濁上歸去後讀同去聲直利切的「治」。可見他已經把平聲的「治天下」讀成了去聲。「治天下」和「天下治」的兩個治字，沒有了分別。韓愈曾任國子博士，以經義訓誨諸生。他在不經意之間所透露出來的正音的轉變，值得我們重視。

其次要說的，是宋代《貢舉條式》中的一種令人不安的設計。《貢舉條式》是科舉應試時必須遵守的規定，它由不斷擴充和修訂的多份官方文件所組成。這些文件，現在仍可在南宋紹定重刊的《禮部韻略》中看到。這裡要提出來解說的，是其中〈淳熙重修文書式〉關於避諱的部分。

〈淳熙重修文書式〉除了「舊諱」、「今上皇帝御名」、「舊名」等補充性的文字之外，最主要的，是提供了「聖祖名」和「廟諱」兩組成系統的避諱字。這些避諱字，一共有十六組。這十六組避諱字，每組先列正諱，繼列嫌名。最多的一

組有五十六字，最少的有五字；總共避諱三百三十五字。字數多少還在其次，最令人吃驚的，是以下三點：

- (十二) 它把所有與正諱同音的字，都列為嫌名，一體迴避。不但違背了「不諱嫌名」的舊例，而且窮盡了所有的同音字。把「嫌名諱」極大化到了盡端。
- (十三) 它將二名拆開，分別都要避諱。不但違背了「二名不偏諱」的舊例，而且窮盡了所有二名的同音字。把「二名諱」極大化到了盡端。
- (十四) 十六組避諱字，其實就是十六組同音字。它將這十六組同音字，從《禮部韻略》中完全移除。使官定的韻書中，以及在所有官方的語域之中，永遠沒有這十六個小韻，也永遠沒有這三百三十五個字，以及這些字的發音。

永遠移除其中的十六組小韻和三百三十五個可用的字，那就是對語言處以極刑了！雖然說「經史舊文」可以不必諱，而民間口語也仍然可以保留這些字詞和發音，但是這些類似語言自殘的規定，使官方場域的語言資源橫遭毀棄，語言創造倍受限制，則絕可斷言。《史諱舉例·第七十八·宋諱例》說：「宋人避諱之例最嚴。」這樣嚴厲的規定，居然發生在聖君賢相以右文相標榜的宋代，實在教人難以置信！

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Phonological Problems in Imperial Naming Taboos

Dah-an Ho

Academia Sinica

This article explores the issue of taboo names and their relationship to Chinese phonological history by examining Chén Yuán's *Examples of Imperial Naming Taboos*. The author first corrects some errors of understanding in Chén's book that are due to phonological factors in history that Chén failed to take into account. The author demonstrates how changes in the language can affect the particularities of what graphs might be taboo at different times in history and that what Chén considered errors or exceptions to the expected practice were actually not so when the phonology is correctly understood. Following, the discussion presents new evidence to support the concepts of "taboo names are homophonous" and "graph substitution includes consideration of taboo pronunciation". Finally the article presents a general discussion of the practice of naming taboo in history and illustrates what the practice can tell us about the history of phonology in Chinese.

Key words: naming taboos, Chén Yuán, *Examples of Imperial Naming Taboos*, homophonous taboo, homophone substitution

漢與唐宋兩代若干常用動作動詞的比較*

丁邦新

加州大學柏克萊分校

中央研究院

近年來研究詞彙的學者注意到常用詞以及詞彙系統性的重要。這篇文章利用許慎《說文解字》的說解文字，說明漢代部分常用動作動詞的意義。因為許慎的說解一定是當時通用的語言，《說文解字》又涵蓋當時他所見的文字，所以這項資料具有系統性，可以完整地呈現若干詞彙的用法。然後再比對《全本王仁昫刊謬補缺切韻》及《廣韻》兩本韻書中相關解釋字義的文字，討論漢與唐宋兩代若干常用動詞的同異，並觀察詞彙延續性的問題。

關鍵詞：常用詞，動作動詞，漢代詞彙，唐宋詞彙，詞彙演變

1. 引言

最近丁邦新 (2005) 討論方言詞彙的時代性，指出東漢許慎的《說文解字》中根本沒有「打」這個字。表示「打」的意義的字是「擊」，例如：「擊：支也」、「格：擊也」、「挨：擊背也」。到了宋代的《廣韻》裡「擊」就變成「打」了：「擊：打也」、「格：打也」、「挨：打也」。汪維輝 (2000:197, 200) 說：「『打』是東漢中期出現的一個新詞。」「在晚漢三國時期，『打』的用例主要出現在翻譯佛經中，中土文獻還極少見到。」這使我想起我們可以用《說文解字》（以下簡稱《說文》）跟唐代王仁昫的《刊謬補缺切韻》（以下簡稱《全王》）和宋代的《廣韻》作比較，觀察漢與唐宋兩代之間若干常用動詞的異同。如果要全面比較，也許要寫一本專書。現在我只想用舉例的方式，討論一些有意思的現象。

* 這篇文章為老友 South Coblin (柯蔚南) 教授祝壽而寫。他是我在華盛頓大學讀研究所時代的同學，我們一起學習，一起成長，對中國語言學有同樣的興趣。他在 1978 年就研究過許慎《說文解字》的「讀若」問題，1983 年又出版過 *A Handbook of Eastern Han Sound Glosses*。希望這篇由《說文解字》說起的短文能引起他的興趣。

近年來研究詞彙的學者注意到常用詞以及詞彙系統性的重要（汪維輝 2000，蔣紹愚 2012）。首先我們用許慎的《說文》來說明漢代一些常用詞的情況，因為這項資料相當完整。然後再比對《全王》、¹ 以及《廣韻》的相關解釋，討論漢與唐宋常用詞的不同以及字義的演變。常用詞的範圍還是相當大，在這篇短文裡我想限制在少數動作動詞裡，一方面因為動作動詞是基本詞彙，另一方面有《漢語方言詞匯》（以下簡稱《詞匯》）「肢體動作」類的方言資料可資比較。下面就按《詞匯》的次序一一羅列，² 最後再分組來討論。

我們專門注意《說文》中說解的文字，因為許慎解釋某一個「字」的時候，一定用當時文人能看得懂的通語。《全王》和《廣韻》主要作為寫詩時押韻的參考，簡單的說解應該也能表現唐宋兩代大家容易懂的書面語。在性質上《說文》是字書，解釋文字的結構以外，同時指明字義；《全王》和《廣韻》是韻書，說明同韻可以互相押韻的字以外，也解釋各別的字義，以便寫詩時作為參考。這裡有幾點需要說明：

第一、《說文》涵蓋漢代許慎所見的文字，是當時文字的完整呈現。以手部的動作動詞而言，系統性是很清楚的，當然說解的文字也能完整地說明若干詞彙的用法。

第二、字義可能前有所承，《全王》和《廣韻》有明引《說文》的地方，也有暗引的地方。但《全王》是《切韻》(601 C.E.) 的修訂本，《切韻》的字義主要是陸法言當時的注解，而王仁昫在《全王》的序中提到陸書「復闕字義」的話，所以要刊謬補缺，可見《全王》的字義大體能反映唐代通行的意義。

第三、《全王》和《廣韻》是一線相承的兩本韻書，在字義的解釋上自有相承的地方，但後者是宋代 (1008 C.E.) 陳彭年、丘雍重修的。前言中提到「矧注解之未備」，可見已經注意到注解的問題，應該不只是沿襲。《全王》用一個字解釋的，《廣韻》常常改成兩個字的詞彙。我把唐宋連在一起，並不作顯明的區別，只把唐宋跟漢代分為兩個可以比較的時期。

第四、現代的字義沒有特別標示，乃是根據作者自己的判斷。

簡單說來，用字書和韻書的說明文字來比較異同，用的方法非常簡單，但顯示的事實應該無可懷疑。

¹ 《全王》用龍宇純 (1968) 的校箋本，細微的校勘問題就不再一一註明。

² 大體按《詞匯》的次序，如果《說文》沒有的字就略過不提。

2. 資料與解釋

2.1 文字	《說文》	《全王》	《廣韻》
拏	持也	絲絮相牽	絲絮相牽（麻韻女加切） 牽引（魚韻女魚切）
拏	牽引也	牽	牽也（麻韻女加切）
牽	引前也	引	引也
引	開弓也	延	《說文》曰：開弓也

桂馥的《說文解字義證》（1851，以下簡稱《義證》）說：「持也者，拏通作拏。拘捕有罪曰拏，今俗作拿。」但從《說文》的「持也」看不出拘捕的意思，倒是現在各方言「拿」字的意義於古有徵（參見下條）。至於「絲絮相牽」的意義從何而來，不容易解釋。可能因為同音的關係從「拏」字的「牽引」變來。

《說文》對「引」字的解釋是從本義出發；「拏」字牽引的意義大體未變，但現代都已不用。

「牽、引」兩字唐宋很常用，到現代意義也沒有多少改變。

2.2 文字	《說文》	《全王》	《廣韻》
拏	持也	絲絮相牽	絲絮相牽
持	握也	執	執持
挾	俾持也	持	懷也、持也、藏也、護也
摯	握持也	（擊？）	國名，亦持也
操	把持也	持	操持
握	搯持也	持	持也
把	握也	手抓物	持也，執也

表示「拿」的意思，《說文》顯示最通行的詞是「持」。有各種方式的「持」，這裡只舉了幾個例子（參見 2.4 條）。唐宋還是常用詞。現代許多方言通行的「拿」字在《廣韻》還沒有出現。「握」字漢代可能也很常用，但《全王》、《廣韻》解釋的文字中都沒有出現，現代還有「把握」的用法。

2.3 文字	《說文》	《全王》	《廣韻》
摘	拓樹果實也	手取	手取
拓	拾也	（未錄）	手承物

拾	掇也	取	收拾，又掇也、斂也
掇	拾取也	拾	拾取（薛韻）、拾掇也（末韻）
取	捕取也	得	收也，受也
捕	取也	捉	捉也

「摘」字的意義古今未變，後代的用法比《說文》的定義略為寬廣。

《說文》在「取：捕取也」之後，又說：「周禮獲者取左耳」，解釋的是「取」字的本義。但從「拾取」看來，顯然漢代已經泛用了，直到唐宋「取」字都是通用的詞。

2.4 文字	《說文》	《全王》	《廣韻》
提	挈也	持	提攜
挈	縣持也	提	提挈、又持也
揮	提持也	觸（寒韻）	揮援、牽引（仙韻）， 揮觸也（翰韻）

從「縣持」看來，「提」字的意義古今未變，只是從實際的「提東西」發展到抽象的提攜。似乎是常用詞。「揮」字從「提持」引申到「揮觸」。

2.5 文字	《說文》	《全王》	《廣韻》
舉	對舉也	薦	擎也、又立也、言也、動也
揚	飛舉也	舉	舉也、說也、導也、明也
掀	舉出也	高舉	以手高舉
揭	高舉也	立舉	高舉也
扛	橫關對舉也	對舉	舉鼎

《說文》給「舉」字下的定義裡也有「舉」字，加上其他四字的解釋，可見「舉」字在漢代常用，經過唐宋，直到現代未變。《廣韻》增加許多引申義，主要的意義沒有不同。

2.6 文字	《說文》	《全王》	《廣韻》
端	直也	首	正也、直也、緒也、等也

《說文》「端」字是形容詞，《全王》是名詞，《廣韻》兩者都有，現代「端」字動詞的意思在這幾本書上看不出來。

2.7	文字	《說文》	《全王》	《廣韻》
	捧	奉也	(未錄)	《說文》曰：奉也（鍾韻符容切） 灼龜視兆也（用韻符用切）
			捧：掬	兩手承也（腫韻）
	奉	承也	進上	與也、獻也、祿也、《說文》承也
	承	奉也、受也	次、一曰奉	次也、奉也、受也

《義證》說：「捧，或作奉。」前者平聲，後者上聲。現在大多數方言的「捧」字都是上聲，但閩南語表示「端」的「捧」讀平聲，跟《廣韻》鍾韻的一讀正好吻合。

漢代「奉」字很常用，唐宋大概延續，現在還見於「奉獻」一詞。

2.8	文字	《說文》	《全王》	《廣韻》
	挑	撓也	撥挑	挑撥（蕭韻）、挑達（豪韻） 挑戰，亦弄也、輕也（篠韻）
	挾	挑也	縱弦彊、挾出	縱弦彊也、挾出
	撓	擾也	攪	撓亂
	擾	煩也	動	亂也、順也

《說文》「挑」字是有擾亂的意思。《全王》和《廣韻》的一義作「撥挑、挑撥」，可能是實際「撥弦」的意思，未必有抽象「挑撥」的含意。至於現代方言「肩挑」的意思則未見。常用性很難說。

2.9	文字	《說文》	《全王》	《廣韻》
	壓	壞也	鎮	鎮也、降也、笮也、壞也
	壞	敗也	敗、毀	自破也，毀也
	敗	毀也	破	破他曰敗
	毀	缺也	壞	壞也、破也、缺也、虧也
	缺	器破也	器破	器破
	破	石碎也	物毀	破壞

這一組字的意義綜合起來是「毀、壞、破、敗」，常用性沒有肯定的根據，但從唐宋用字看來，跟漢代很接近，可能一直都是常用字。「壓」字《說文》看不出「鎮壓」的意思，到唐宋才產生。

2.10 文字	《說文》	《全王》	《廣韻》
按	下也	抑	抑也、止也
抑	按也	按	按也
下	底也	不上	賤也、去也、後也、底也、降也

《說文》的「下也」大概是動詞，是「往下壓」的意思。從「抑、按也」看來，從漢到唐宋意義沒有改變，常用性很難說。「下」字到宋代發展了許多引申義，似乎跟「按」字沒有關係。

2.11 文字	《說文》	《全王》	《廣韻》
推	排也	進	排也
排	擠也	推	推排也
擠	排也	排盪	排擠（齊韻）、排盪（霽韻）
抵	擠也	擲	擠也，擲也

這一組字的意義是「排、擠」，大致等於「推」，到唐宋常用性沒有改變。跟現在「推門」的「推」意思接近，然後引申為推進。

2.12 文字	《說文》	《全王》	《廣韻》
拖（曳）	曳也	曳	曳也，俗作拖
曳	曳曳也	挽	牽也、引也

「曳」字《說文》的解釋可能有誤字，《義證》說：「一切經音義十九引作申也、牽也」。看起來「拖曳」的意思古今未變。常用性無法判定。

2.13 文字	《說文》	《全王》	《廣韻》
拉	摧也	折	折也，敗也，摧也
摧	擠也	折	折也、阻也

《說文》給「拉」字的解釋是本義，就是後代「摧枯拉朽」的意思，現在一般的「拉」大概是引申。比較常用的詞至唐宋兩代是「折」字。

2.14 文字	《說文》	《全王》	《廣韻》
抽	引也	拔	拔也、引也
援	引也	引	援引也
擢	引也	拔	拔也、抽也、出也
引	開弓也	延	《說文》曰：開弓也

「引」字見第 2.1 條。《說文》的解釋中「引」字最常用，從「抽、援、擢」等字看來，當時「引」字的用法大概大同小異，直到唐宋沒有改變。

2.15 文字	《說文》	《全王》	《廣韻》
拔	擢也	抽	拔擢，又盡也
擢	引也	拔	拔也、抽也、出也
捥	拔也	拔草心	拔草心也
挺	拔也	出	挺出

「拔」字在漢代是常用字，它的意義從漢代以後大體就沒有改變，到唐宋還是一樣常用。參見 2.14 條。

2.16 文字	《說文》	《全王》	《廣韻》
扶	佐也	持	扶持也、佐也
將	扶也	并（？）	送也、行也、大也、助也、辭也

「佐」字《說文》未見，只有「左」字，解釋是「手相左助也」。《全王》對「將」字的解釋意義不明。「扶」字的意義從漢代以後大體也沒有改變，常用性看不出來。

2.17 文字	《說文》	《全王》	《廣韻》
擣	曳聚也	曳（虞韻）、探取（侯韻）	曳也（虞韻）、探取（侯韻）
曳	曳曳也	挽	牽也、引也
聚	會也	斂	眾也、共也、斂也

「摟」字《義證》說：「徐鍇本作曳也、聚也」，應該是分開的兩個意義。除平聲侯韻落侯切以外，今官話又讀上聲 *lǒu*。

「曳」字見上 2.12 條。「摟」字看不出有現代「摟抱」的意思。

「摟」字見於《孟子·告子下》：「逾東家牆而摟其處子，則得妻，不摟，則不得妻，則將摟之乎？」東漢趙岐注釋摟爲牽也，可見牽（本文 2.1 節有說）、摟之間也有若干關係。這也顯示「摟」字從先秦到兩漢語義上已經發生變化。³

2.18 文字	《說文》	《全王》	《廣韻》
	攄（抱）引取也		攄：《說文》云： 引取也（侯韻薄侯切） 攄：引取，亦作抱（肴韻薄交切） 抱：持也，《說文》曰： 引取也（皓韻薄皓切）
		扶擁	
摟	曳聚也	曳（虞韻）、 採取（侯韻）	曳也（虞韻）、採取（侯韻）

《說文》「攄」字或從包得聲，只是解釋字形，《廣韻》歸侯韻，讀薄侯切。意義引《說文》的「引取」。皓韻讀薄皓切的才是現代的「抱」字，解釋是「持也」，也引《說文》的解釋，其實是張冠李戴。《全王》的「扶擁」到《廣韻》的「持也」就是「抱」的意思。「攄、抱」在後代是兩個不同的字。「摟」字見上條。

2.19 文字	《說文》	《全王》	《廣韻》
擊	攴也	拆打	打也
攴	擊也	楚	擊也（屋韻），楚也（覺韻）
格	擊也	（未錄）	打也（鐸韻） 擊也、鬥也、止也、正也（陌韻）
挨	擊背也	打	打也（駭韻），擊也（海韻）
扃	疾擊也	引（錫韻）	扃擊（篠韻），引也（錫韻）
抵	側擊也	抵掌	抵掌，說文云：側手擊也
攻	擊也	擊	攻擊
敲	擊頭也	擊	擊頭也

³ 這一條承審查人見告，在此致謝！

從《說文》的解釋看來，擊、攴兩字互訓，當時通行的語詞表示打擊義的是「擊」；到了唐代「打」字開始出現，到宋代「擊」字還相當通行，而「打」字就增加了。直到現代「打擊」還是常見的書面語，但在白話中只有「打」字了。

2.20 文字	《說文》	《全王》	《廣韻》
撞	𢇛擣也	撞突	撞突也
𢇛	持也	持	持也
擣	手推也，一曰築也	築	擣築

這一組字很少，大體到現代意義未變，常用與否也很難說。

2.21 文字	《說文》	《全王》	《廣韻》
折	斷也	斷折（旨熱反）	拗折（旨熱切） 斷而猶連也， 《說文》斷也（常列切）
斷	截也	截（旱韻）， 決斷（翰韻）	斷絕，絕也（緩韻）， 決斷（換韻）
截	斷也	斷	《廣雅》云：盛也、斷也

「折」字現代有兩個音，都是陽平，讀 *zhé* 的是及物動詞，從《廣韻》的旨熱切來；讀 *shé* 的是不及物動詞從常列切來，而在《全王》只有旨熱反一讀。《說文》的「斷也」大概是及物動詞，常用性及「折斷」的意義從古到今沒有什麼改變，但從《全王》的解釋可見引申為「決斷」的意義已經很普遍。

2.22 文字	《說文》	《全王》	《廣韻》
撥	治也	手撥	理也、絕也、除也
治	水出東萊曲城陽邱山，南入海	理（之韻、至韻）	水名出東萊，又理也（之韻）、理也（至韻）、理也（志韻）

《說文》「撥」字的解釋是「治」，就是撥亂反正。給「治」的解釋是水名，完全跟「撥」字沒有直接連繫，也沒有提到動詞的用法。「撥」字「手撥」的意思好像是唐代後起的，到宋代引申義就多了。《說文》裡找不到其他的字可資比較。參見 2.8 條。

2.23 文字	《說文》	《全王》	《廣韻》
彈	行丸也	擊	糾也、射也、亦彈

《說文》裡也找不到其他跟「彈」相關的字。「彈」的本義「行丸」是射出彈丸的意思，後來的解釋「擊、射」都指其動作，到《廣韻》引申為「糾彈」。現代「彈琴」的用法這裡還沒有。「彈」字另有去聲徒案切一讀。

2.24 文字	《說文》	《全王》	《廣韻》
扔	因也	強牽	引也（蒸韻），強牽引（證韻）
捆	就也	就	就也
因	就也	（無註）	託也、仍也、緣也、就也
就	就高也	從	成也、迎也、即也

「扔」字在三本書中的解釋跟現在「扔東西」的意思連不起來，《說文》的「因也」可能就是後來兩本韻書所說的「強牽」。「就」字漢代常用，但意義未必相同，難以說定。「因、就」等字到宋代發展出許多引申的意義。

2.25 文字	《說文》	《全王》	《廣韻》
走	趨也	急行	《釋名》曰：疾趨曰走
趨	走也	疾行	走也
赴	趨也	（無註）	奔赴
趨	急走也	急走	疾走
趨	輕行也	輕行	《說文》曰：輕行也
趨	行輕貌	起趨	行輕貌
趨	狂走也	走	《說文》：狂走也
奔	走也，與走同意。	疾走	奔走也

走、趨兩字是同義互訓，在漢代大概「走」字比較常用。「走」字跟「急、狂」等字連用，可見是「跑步」的意思。「行」字跟「輕」字連用，則是「步行」的意思。到了《全王》，有「急走、疾走」，但也出現「急行、疾行」的解釋，可見那時「行」字的意義已經擴大。到了《廣韻》，除了明引、暗引《說文》的文字以外，最顯明的是多了「奔赴、奔走」的「奔」字，可見宋代「走」字「跑步」的意思已經消失，或漸漸消失，必須用「奔」字來加強。到了現代方言，很多方言用「跑」，除閩語、粵語等以外，「走」字只有「步行」的意思。

2.26 文字	《說文》	《全王》	《廣韻》
跳	蹶也、躍也	躍	躍也
蹶	僵也、跳也	失腳	失腳、又走也、速也、嘉也
躍	迅也	跳躍	跳躍也、上也、進也
踊	跳也	跳	跳也
踴	跳也	(未錄)	跳也
踴	跳也	跳	跳(踴)，行步貌

「跳」在《說文》中顯然是常用字，到唐宋也一樣，意義也沒有改變。「跳」在《廣韻》只有平聲徒聊切一讀，但方言中多讀去聲。「蹶」字大概後來偏重為「失腳」，就是成語「一蹶不振」的用法。

2.27 文字	《說文》	《全王》	《廣韻》
跨	渡也	越	越也
渡	濟也	越水	濟也、過也、去也
濟	水出常山房子贊皇山	水名	定也、止也、齊也， 又水名(齊韻)
		渡	渡也、定也、止也(霽韻)

「跨」字一直都是「跨越」的意思，是否常用看不出來。《說文》給「濟」字的解釋是「濟水」，讀上聲霽韻；當動詞用的意義，《說文》未見。

2.28 文字	《說文》	《全王》	《廣韻》
坐	止也，土所止也。 此與留同意	(無註)	《釋名》曰：坐、挫也(果韻) 被罪(過韻)
留	止也	止	住也、止也
止	下基也	已	停也、足也、禮也、息也、 待也、留也
距(距)	止也	鳥爪	距：書傳云：至也。距：雞距

《說文》給「坐」字的解釋可能是本義，現代「坐下」的意思唐宋未見。「止」字動詞的用法在漢代大概很常見，但《說文》的定義是名詞。「距(距)」字有動詞、名詞兩個用法，看不出有何明顯連繫。

2.29 文字	《說文》	《全王》	《廣韻》
蹲	踞也	坐	坐也，《說文》踞也
踞	蹲也	蹲踞	蹲
居	蹲也（俗居從足）	（無註）	當也、處也、安也

《說文》蹲、踞兩字互訓，「蹲」字似乎比較常用，意義跟現在只有很小的差異。

2.30 文字	《說文》	《全王》	《廣韻》
靠	相達也	相達	相達也
達	離也	乖	背也
依	倚也	倚	倚也、祿也
倚	依也	恃	依倚也

「靠」字找不到相關的字，勉強從現代「依靠」的用法看「依」字，也沒有頭緒。

2.31 文字	《說文》	《全王》	《廣韻》
鑽	所以穿也	鑽刺（寒韻） 錐鑽（翰韻）	刺也（桓韻）， 錐鑽（換韻）

「鑽」字也找不到可以比較的字，《說文》的解釋顯然是名詞，唐宋都有平去兩讀：平聲是動詞，去聲是名詞。

3. 分析與結語

從《說文》到《全王》和《廣韻》，解釋字義常有沿襲的現象，不容易尋找常用字出現的時代。有些字可能到唐宋已經不用，我們只能從不同的用字裡尋找一點線索。但也有些通俗的字不見於《說文》，也不見於《廣韻》，例如：「托、搬、撐、踩」等等。現在只就上述的資料來加以分析，有的字組難以討論常用與否，只好略而不論。

從常用性的演變看來，上述的詞彙可以分成四類：第一、從漢代經過唐宋到現代還常用的詞彙有：牽、引、取、提、舉、奉、毀、破、敗、拔、斷、跳、

蹲、奔。第二、從漢代到唐宋都常用，但現代已經不用，而代之以其他的詞彙：持→拿、擊→打、走→跑、排→推、擠→推。第三、唐宋新興的詞彙，到現代還常用：抱、撥。第四、漢代已有的詞，現代賦予新的意義：挑、撻、彈、扔、坐、端。從這部分動詞看來，最顯明的現象就是第一類，從漢代到現在還常用的詞特別多，可見漢語主流詞彙的延續性很強。

橋本萬太郎 (1983) 研究北方話聲調的時候，認為漢語北方話的聲調曾經受到滿州語很大的影響，他說：

Judging from the type of “musical tone”, existing “side by side” with “expiratory, dynamic accents” in modern Altaic language, distinction of three or four types of pitch contours for each possible concatenation of segmental sounds called the syllable should not have been difficult at all.

只有三四個聲調的北方方言是說阿爾泰語的侵入者學漢語的結果。

這是一種看法，基本上認為蒙古及滿清統治的時代，阿爾泰語必定對漢語有重大的影響。我對這種看法一直存疑，因為說漢語的人口眾多，分布的地域又廣，要說漢語的聲調演變是說阿爾泰語的人學漢語的結果，或者說漢語的聲調只剩下三四個乃是受到阿爾泰語重音的影響，似乎都不能令人信服。

聲調不能捨棄詞彙而單獨存在，詞彙的情形又如何呢？現在從第一類詞彙看來，顯然這種推論值得商榷。當然，這只是全部詞彙極少的一部分，只能算是抽樣，不過這些都是動作動詞，都是基本詞彙，具有相當的代表性。將來如果有人觀察全部詞彙的演變，相信不會有太大的差異。其他三類其實本質是一樣的，都是唐宋或現代的新詞，唐宋興起的沒有看出阿爾泰語的影響，現代的新詞更不可能受到影響。鄰近的語言互相影響是自然的事，但說漢語的人群為數龐大，阿爾泰語對漢語的影響想來應該是零碎的。

本文所用的方法是觀察三本書中解釋的文字，所以沒有提到本來的單字。其實，有許多單字《說文》跟現代的意義完全相同或大同小異。例如：奉也；把、握也；摘、拓樹果實也；扛、橫關對舉也；缺、器破也；按、下也；挖（拖）、曳也；抽、引也；扶、佐也；聚、會也；敲、擊頭也；奔、走也；跨、渡也。用法上漢代跟現代幾乎沒有區別。這個現象更有力地加強了上文對詞彙延續性的說明。

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A Comparative Study of Frequently Used Action Verbs in Hàn and Táng-Sòng Times

Pang-Hsin Ting

University of California, Berkeley

Academia Sinica

Chinese lexicologists have in recent years paid a special attention to the notion of vocabulary that are frequently used and the implications they bear on the lexical system. Following this direction, this paper discusses the frequently used action verbs in Hàn times by examining the explanatory notes in Xǔ Shèn's *Shuōwén Jiězì*, which is systematic in its compilation. Then by comparing the Hàn vocabulary with the Táng-Sòng lexicon as recorded in the complete editions of the *Wáng Rénxǔ Kānmiù Bǔquē Qièyùn* and the *Guāngyùn*, the paper attempts to identify and study the differences, and to observe the general tendency of a lexical change.

Key words: frequently used vocabulary, action verbs, Hàn vocabulary, Táng-Sòng lexicon, lexical change

Northern Mǐn ‘Softened’ Initials in Borrowed Vocabulary

William H. Baxter

University of Michigan

The ‘softened’ initials of Northern Mǐn dialects cannot be fully accounted for either within the Middle Chinese system of the *Qìyùn*, or as the result of the influence of another dialect; some of them must represent an old feature that was lost in Middle Chinese, but preserved, in traces, in Northern Mǐn. Nevertheless, some softened initials do occur in a literary stratum of Northern Mǐn vocabulary, borrowed from another dialect, and they correspond to the voiced obstruent initials of that dialect. Like Middle Chinese (and unlike Mǐn), that dialect had lost the original *-j coda of syllables in the traditional 歌 Gē rime group of Old Chinese. Although it preserved voiced obstruent initials, it was probably not a Wú dialect, since it also had a number of northern dialect features: (1) syllables in the traditional 止攝 Zhǐ shè (with MC finals *-i*, *-ij*, and *-je*) with dental sibilant initials (MC *ts-*, *tsh-*, etc.) had undergone apicalization; (2) division-III and division-IV syllables of the 蟹攝 Xiè shè (with MC finals *-jej* and *-ej*) rimed with words of the 止攝 Zhǐ shè; and (3) MC *ny-* (traditional 日 Rì) and those cases of *m-* that were subject to labiodentalization (traditional 微 Wēi) had become denasalized. The literary vocabulary of Northern Mǐn probably comes from an early form of Mandarin, like the dialect of Hángzhōu, the Southern Sòng capital.

Key words: Northern Mǐn dialects, softened initials, Old Chinese, loanwords, Early Mandarin

1. Softened initials in Northern Mǐn

South Coblin has called attention to the problems in Chinese dialectology of excessive reliance on the *Qìyùn* 切韻 (601 C.E.) and related written sources (see, for example, Coblin 2003). The dialects classified as Northern Mǐn 閩 (in the terminology of Lǐ Rúlóng & Chén Zhāngtǎi 1991) offer a clear example of this point. In their initial consonants and tonal systems, these dialects show contrasts that cannot be accounted for in terms of the *Qìyùn* system: in pairs of words where Middle Chinese (MC) has the same initial consonant and the same tone, Northern Mǐn dialects sometimes show a contrast in initial consonant or tone, or both. Here is an example, with forms from four Northern Mǐn dialects that I will use for examples in this paper: Jiànyáng 建陽 (JY), Shíbēi 石陂 (SB, in Pǔchéng 浦城 County), Zhènqián 鎮前 (ZQ, in Zhèng hé 政和

County), and Díkǒu 迪口 (DK, in Jiàn'ōu 建甌 municipality).¹

- (1) 白 *bái* < MC *baek* D ‘white’: JY /pa 8/, SB /pa 1/, ZQ /pa 6/, DK /pa 4/
 薄 *báo* < MC *bak* D ‘thin’: JY /və 8/, SB /bə 2/, ZQ /pə 5/, DK /pə 8/

In most varieties of Chinese, the initial consonant and tone category can usually be predicted from the Middle Chinese initial and tone. In this case, however, both 白 *bái* ‘white’ and 薄 *báo* ‘thin’ have the Middle Chinese initial *b-* (traditional name: *bīng* 並) and belong to the *rùshēng* 入聲 or ‘entering tone’ category; but their initial and/or tonal reflexes in Northern Mǐn are different: for 薄 *báo* ‘thin’, Jiànyáng and Shíbēi have /v/ and /b/ respectively instead of /p/, while Zhènqián and Díkǒu have different tones from those in 白 *bái* ‘white’. Items like 薄 *báo* ‘thin’ are informally said to have ‘softened’ initials, because in these items some Northern Mǐn dialects, like Jiànyáng, have an initial voiced fricative or approximant, or sometimes zero, where most varieties of Chinese have a stop.

Table 1 gives additional examples of morphemes with softened and unsoftened initials in Northern Mǐn. In each pair, Middle Chinese has the same initial consonant and tone: the example labeled with ‘b’ is softened in Northern Mǐn, in contrast to the example above it, labeled with ‘a’. In his reconstruction of Proto-Mǐn (pMǐn), Jerry Norman reconstructed distinct sources for the softened initials, indicated by a preceding hyphen; the reconstruction of each item according to Norman’s system (1973, 1974, 1981) is given in the last column of Table 1.

¹ Middle Chinese pronunciations are given in the notation of Baxter (1992:27-85), except that here I write “ae” instead of “æ”; and for ease of comparison with the Mǐn forms, the *píng* 平, *shǎng* 上, *qù* 去, and *rù* 入 tone categories are marked with *A*, *B*, *C*, and *D* respectively (instead of writing ‘-X’ for *shǎngshēng* 上聲 and ‘-H’ for *qùshēng* 去聲). This notation is not intended as a reconstruction of the pronunciation of any particular dialect, but simply as a convenient transcription of the information given in the Middle Chinese written sources. Here and below, data for Jiànyáng are from Norman (1971, 1981), while data for Zhènqián, Shíbēi, and Díkǒu are from Akitani (2008). Tone categories in the dialects are numbered according to traditional etymological categories: 1, 3, 5, and 7 are upper-register *píng*, *shǎng*, *qù*, and *rù* respectively, and 2, 4, 6, and 8 are the corresponding lower-register categories. Some morphemes with ‘softened’ initials have a distinctive tone identified as tone category 9, which falls outside the traditional system.

Table 1: ‘Softening’ contrasts in Northern Mǐn

	MC	Jiànyáng	Shíbēi	Zhènqián	Díkǒu	pMǐn
1a 短 <i>duǎn</i> ‘short’	<i>twan B</i>	tui 3	to 3	toi 3	toi 3	*toi B
1b 賭 <i>dǔ</i> ‘gamble’	<i>tu B</i>	lo 3	du 3	tu 9	tu 9	*-tu B
2a 弟 <i>dì</i> ‘YoBr’	<i>dej B</i>	tie 5	tie 1	tie 6	tiɛ 4	*die B
2b 動 <i>dòng</i> ‘move’	<i>duwng B</i>	loŋ 5	dəŋ 5	toŋ 5	təŋ 8	*-dəŋ B
3a 分 <i>fēn</i> ‘divide’	<i>pjun A</i>	puŋ 1	pueiŋ 1	puŋ 1	pui 1	*pion A
3b 崩 <i>bēng</i> ‘collapse’	<i>pong A</i>	vaiŋ 9	baiŋ 2	peuŋ 5	pai 8	*-peŋ A
4a 白 <i>bái</i> ‘white’	<i>baek D</i>	pa 8	pa 1	pa 6	pa 4	*bak D
4b 薄 <i>báo</i> ‘thin’	<i>bak D</i>	vɔ 8	bɔ 2	po 5	pɔ 8	*-bok D
5a 爬 <i>pá</i> ‘climb’	<i>bae A</i>	pa 2	pa 5	pa 2	pa 2	*ba A
5b 房 <i>fáng</i> ‘room’	<i>bjang A</i>	voŋ 9	bɔŋ 2	poŋ 9	pɔŋ 9	*-bəŋ A
6a 葛 <i>gé</i> ‘dolichos’	<i>kat D</i>	kue 7	kuai 7	kua 3	kua 7	*kat D
6b 割 <i>gē</i> ‘cut’	<i>kat D</i>	ue 3	fuai 3	ua 9	ua 9	*-kat D
7a 舅 <i>jiù</i> ‘MoBr’	<i>gjuw B</i>	kiu 5	kiu 1	kiu 6	kiu 4	*giu B
7b 倚 <i>jì</i> ‘stand’	<i>gje B</i>	kye 5	gye 5	kye 5	kye 8	*-giai B
8a 醬 <i>jiàng</i> ‘sauce’	<i>tsjang C</i>	tsioŋ 5	teioŋ 5	teioŋ 5	tsio 5	*tsioŋ C
8b 醉 <i>zuì</i> ‘drunk’	<i>tswij C</i>	ly 9	dzy 2	tsui 9	tsy 9	*-tsyi C
9a 自 <i>zì</i> ‘self’	<i>dzij C</i>	tsoi 6	tɛi 6	tɛi 6	tsi 7	*dzi C
9b 字 <i>zì</i> ‘character’	<i>dzi C</i>	loi 6	dzi 6	tɛi 9	tsi 6	*-dzi C

Based on a careful study of both segmental and tonal reflexes, Zev Handel (2003) concluded that the softened initials could be reconstructed for Proto-Northern Mǐn (as opposed to Proto-Mǐn) as voiced initials with breathy release. The voicing is preserved in Shíbēi; voiceless reflexes in other dialects result from later developments.

The tradition of relying on the *Qièyùn* system rather than on modern spoken dialects in reconstructing the history of Chinese has been so strong that contrasts like those in Table 1 have sometimes been treated as secondary, and attributed to dialect mixture: the voiced reflexes of Shíbēi, for example, have been attributed to influence from the dialects to the north that are traditionally assigned to the Wú 吳 group, which are characterized by a three-way contrast in initial stops and affricates, as in Middle Chinese: voiceless unaspirated, voiceless aspirated, and voiced or murmured (Hirata 1988).² But Norman (2000) showed convincingly that influence from Wú dialects is not sufficient to explain the phenomenon. There is no need to repeat the details of the argument here: the crucial points are that (1) many of the Shíbēi words with voiced reflexes (such as examples 1b,

² The status of Wú as a valid taxon is problematic, as pointed out by Norman (2004). The traditional definition of the Wú group is based partly on a shared retention (the retention of the three-way manner distinction in initial stops and affricates) rather than on any shared innovations, and partly on geography—since some dialects outside the traditional Wú area also preserve three manners of articulation, but have not been included in the Wú group.

3b, 6b, and 8b in Table 1) have voiceless initials in the Wú dialects, so their voicing cannot be attributed to Wú; and (2) some of the words involved are confined to the Mǐn dialect group and do not occur in Wú dialects at all.

In the absence of a plausible explanation from language contact, then, it is reasonable to conclude that the contrasts illustrated in Table 1 existed in the common ancestor of the Mǐn dialects and the dialects represented in the Middle Chinese sources, but were lost in the latter. In our new reconstruction of Old Chinese (OC, Baxter & Sagart, forthcoming), Sagart and I take Mǐn evidence into account, and propose that the softened initials reflect earlier stops and affricates that underwent lenition in intervocalic position. For instance, we reconstruct example 3b in Table 1 as in (2), where *C represents a consonant that cannot yet be identified:

- (2) 崩 *bēng* < MC *pong* A < OC *Cə.pʰəŋ ‘collapse (v., of a mountain)’, pMǐn *-peŋ A

In a form like this, we assume that the intervocalic *-pʰ- lenited, ultimately producing Jiànyáng /v/ and Shíbēi /b/.³ Such lenition is a common phenomenon in languages of the world; a similar process affected Vietnamese (Ferlus 1982). Compare also the lenition of Latin intervocalic voiceless stops in Spanish and French, as in (3): Spanish has voiced fricatives; French went further, losing earlier [ɣ] and [ð] entirely, but preserving original -p- as [v].

(3) Latin	Spanish	Old French	Modern French
<i>sēcūru-</i> ‘safe’	<i>seguro</i> [se'ɣuro]	<i>seūr</i> [sə'yr]	<i>sūr</i> [syɾ]
<i>mātūru-</i> ‘ripe’	<i>maduro</i> [ma'ðuro]	<i>meūr</i> [mə'yr]	<i>mūr</i> [myɾ]
<i>capillu-</i> ‘hair’	<i>cabello</i> [ka'βeʎo]	<i>chevel</i> [tʃə'vel]	<i>cheveu</i> [ʃ(ə)'vø]

A similar kind of intervocalic lenition is part of the synchronic morphophonemics of Fúzhōu and other Eastern Mǐn dialects (Féng 1998):

- (4) 毛筆 *máobǐ* ‘writing brush’, Fúzhōu /mo 53/ + /pei? 24/ → /mo 21 βei? 24/
被告 *bèigào* ‘defendant’, Fúzhōu /pei 242/ + /ko 212/ → /pei 53 o 212/

Thus Northern Mǐn softening cannot be written off as a late aberration in a system basically consistent with Middle Chinese; examples such as those above reflect early

³ Although Norman (1986) focused on prenasalization as a possible source of softening in Northern Mǐn, he also mentioned intervocalic lenition as a possible explanation (1986:383-384). We believe that the latter hypothesis is more plausible.

distinctions preserved in Northern Mǐn but lost in the *Qièyùn* system, and are therefore relevant in reconstructing Old Chinese.

2. Softened initials in borrowed vocabulary

However, an inspection of the Northern Mǐn data shows that some cases of softening must indeed be of secondary origin. Like most Mǐn dialects, Northern Mǐn has some forms for which there are both ‘colloquial’ (C) and ‘literary’ (L) pronunciations. These terms, used for convenience, refer to etymological origin rather than actual use, since by now many ‘literary’ pronunciations are found in perfectly ordinary colloquial words, and some ‘colloquial’ pronunciations may survive only in rare fixed phrases. Words classified as colloquial in Mǐn are assumed to be inherited from a stage of the language no later than Proto-Mǐn, while those classified as literary are assumed to be later borrowings from one or more prestige dialects. The different levels can be distinguished by their correspondences: colloquial items usually show regular correspondences across the Mǐn dialects, and can be reconstructed for Proto-Mǐn; literary pronunciations are borrowed from dialects that are closer to the *Qièyùn* system, and incorporate innovations not found in colloquial Mǐn. The point of the present paper is that the softened initials in Northern Mǐn are not confined to colloquial items; they are also found in literary vocabulary. Some examples are given in Table 2.

Table 2: Softened initials in Northern Mǐn literary morphemes

		origin	C/L	Jiànyáng	Shíbēi	Zhènnián	Díkǒu
1a	弟 <i>dì</i> ‘YoBr’	pMǐn *die B	C	tie 5	tie 1	tie 6	tiē 4
1b		MC <i>dej</i> B	L	loi 5	di 5	ti 5	ti 8
2a	定 <i>dìng</i> ‘fixed’	pMǐn *dian C ^a	C	tian 6	tian 6	tian 6	tia 7
2b		MC <i>deng</i> C	L	loin 6	dein 6	tein 5	—
3a	疾 <i>jí</i> ‘illness’	pMǐn *dzit D	C	tsoi 8	tei 1	tei 6	tsi 4
3b		MC <i>dzit</i> D	L	loi 8	dzi 2	tei 5	tsi 7
4a	平 <i>píng</i> ‘even’	PMǐn *bian A ^b	C	pian 2	pian 5	pian 2	pia 2
4b		MC <i>bjaeng</i> A	L	voin 2	bein 2	pein 9	pein 9
5a	住 <i>zhù</i> ‘reside’	PMǐn *diu C	C	tiu 6	tiu 6	tiu 6	tiu 7
5b		MC <i>drju</i> C	L	ly 6	dzy 6	tey 5	—
6a	自 <i>zì</i> ‘self’	PMǐn *dzi C	C	tsoi 6	tei 6	tei 6	tsi 7
6b		MC <i>dzij</i> C	L	lo 6	dzu 6	tsu 5	tsu 8

^a Some Mǐn dialects also have a form reflecting pMǐn *dhian C, generally associated with a transitive meaning.

^b Some Mǐn dialects have forms reflecting pMǐn *ban A.

Table 2 gives data for six etyma that have both colloquial and literary pronunciations. The colloquial pronunciations, listed first and marked ‘a’, are broadly consistent with the rest of the Mǐn dialects, and can be derived from Norman’s Proto-Mǐn reconstruction (given under ‘origin’ in the table). In each case, the original etymon has a voiced initial in Middle Chinese and is reconstructed with a Proto-Mǐn plain voiced initial *d, *b, etc., for which the four dialects above have voiceless reflexes, as expected. But the literary forms, listed second and marked ‘b’, show the usual Northern Mǐn reflexes of softened voiced initials *-d, *-b, etc.: Jiànyáng has /v/ as if from *-b in 4b, and /l/ as if from *-d or *-dz in the other examples; Shíbēi has /b/, /d/, or /dz/ ([dz] or [dz]); in Zhènqián and Díkǒu, the tonal reflexes in the literary forms are inconsistent with Proto-Mǐn plain voiced initials.

Various clues tip us off that the ‘b’ forms in Table 2 are borrowed and do not reflect Proto-Mǐn. Item 1b has the Middle Chinese final *-ej*, which in colloquial words normally corresponds to Proto-Mǐn *-e or *-ie (Norman 1981:38, 46); but the Northern Mǐn final correspondence (oi-i-i-i) is what we would expect from Proto-Mǐn *-i (Norman 1981:37). Similarly, MC *-eng* in 2b and *-jaeng* in 4b normally correspond to Proto-Mǐn *-iaŋ (or sometimes *-aŋ), as in 2a and 4a; but the literary forms 2b and 4b show the Northern Mǐn correspondence oiŋ-eiŋ-eiŋ-eiŋ, which normally reflects Proto-Mǐn *-in (Norman 1981:56-57). The colloquial forms in 3a are glossed by Akitani (2008) as ‘pain’ (痛 *tòng*), presumably a free form, while 3b occurs in the compound word 疾病 *jíbìng* ‘disease, illness’. According to Akitani, form 5a, from Proto-Mǐn *diu C, is used as the resultative complement 住 *zhù*, as in 記住 *jìzhù* ‘remember, hold in memory’; it exhibits the correspondence of Proto-Mǐn dental stops to the Middle Chinese retroflex stop initials *tr-*, *trh-*, and *dr-*, which is found in colloquial Mǐn. But the literary form 5b has an affricate initial in Shíbēi and Zhènqián, presumably reflecting a dialect where the Middle Chinese retroflex stops *tr-*, *trh-*, and *dr-* merged with the palatal affricates *tsy-*, *tsyh-*, and (sometimes) *dzy-* respectively, as in most other varieties of Chinese. Finally, 6a shows the final correspondence oi-i-i-i, the regular reflexes of Proto-Mǐn *-i; while form 6b apparently reflects a dialect in which the final corresponding to MC *-i*, *-ij*, and *-je* (from the 之 *Zhī*, 脂 *Zhī*, and 支 *Zhī* rimes respectively) has become a nonfront vowel, like the apical vowel [ɨ] of many modern dialects, after the Middle Chinese dental sibilants *ts-*, *tsh-*, *dz-*, *s-*, *z-* (see further discussion below).

All the etyma in Table 2 have voiced initials in Middle Chinese. The ‘b’ forms in Table 2 can be explained if we assume that they were borrowed from a dialect that retained voiced or murmured initials corresponding to the voiced obstruent initials of Middle Chinese, and if they were borrowed into a form of Northern Mǐn in which the softened initials were voiced or murmured—as reconstructed by Handel (2003) for Proto-Northern Mǐn. Languages do not easily borrow words with phonetic features that do not occur in native words: for example, Americans generally pronounce *déja vu*,

borrowed from French, as [deʒa'vu] rather than [deʒa'vy], because [y] does not occur in native English words. But although the voiced or murmured initials of Proto-Northern Mǐn were distributed differently than the voiced initials of Middle Chinese, they did exist in the native phonology, so it is natural that voiced-initial words would be borrowed as voiced or murmured, and then develop within Northern Mǐn like the inherited softened initials. As far as I can tell, almost all the Northern Mǐn literary forms where softened initials occur have voiced initials in Middle Chinese, and thus could have been borrowed from a dialect whose voiced initials corresponded to those of Middle Chinese.

3. Innovations in the source dialect reflected in borrowed vocabulary

In order to use Northern Mǐn data in reconstructing Old Chinese, it is important to distinguish the words with inherited softening from those where the softening results from borrowing. Even leaving Old Chinese aside, making this distinction is important in understanding the history of Northern Mǐn itself: what variety (or varieties) of Chinese was the source of this borrowed vocabulary, and under what historical circumstances did this borrowing occur? As we began to discuss above, the Northern Mǐn forms contain several important clues: the borrowed words reflect a number of innovations that did not affect the native vocabulary of Mǐn dialects, and by identifying these innovations, we can begin to narrow down the set of possible source dialects. In the remainder of the paper, I will discuss a number of these innovations and draw tentative conclusions.

3.1 *-aj monophthongization

The dialects reflected in the Middle Chinese written sources have undergone an innovation by which the Old Chinese rime *-aj (in the traditional 歌 Gē rime group) lost its coda *-j, becoming MC -a (the 歌 Gē rime of the *Qīyùn*); this is the change called ‘*-aj monophthongization’ in Baxter (1992:293-297, 413-418, 570-571).⁴ Another result of this process was that OC *-raj (from the 歌 Gē group) merged with original OC *-ra (from the 魚 Yú group) as MC -ae (in the 麻 Má rime). The changes are summarized in (5):

⁴ The coda *-j was also lost in Middle Chinese, but retained in colloquial Mǐn, in words with MC -wa from original *-oj, e.g. 坐 *zuò* ‘sit’, MC *dzwa* B, Proto-Mǐn *dzoi B < OC *-o[j]ʔ. In this example, the final *-j is enclosed in square brackets because *-orʔ is also a possible reconstruction (following Starostin 1989:338-341): OC *-r usually develops like *-n in Middle Chinese, but occasionally like *-j, because of dialect mixture; and some cases of Proto-Mǐn *-oi may come from original OC *-or, as with 短 *duǎn* ‘short’, MC *twan* B, Proto-Mǐn *toi B < OC *tʰorʔ. See Baxter & Sagart (forthcoming) for discussion.

(5) *-aj monophthongization:

OC *-aj > MC -a (the 歌 Gē rime)

OC *-raj > MC -ae (the 麻 Má rime); merging with

OC *-ra > MC -ae

But certain southeastern dialects, including the Mǐn group, did not undergo this change: the result is that in Mǐn, (1) OC *-aj apparently merged instead with the reflex of OC *-at-s (which became MC -aj C, the 泰 Tài rime); and (2) OC *-raj (> pMǐn *(u)ai) is still distinct from OC *-ra (> pMǐn *-a). (The fact that this distinction is preserved in Mǐn but not in Middle Chinese is sufficient in itself to show that the Mǐn dialects cannot be descended from a dialect like Middle Chinese.) As a result, we have the correspondences in (6):

(6)	OC	pMǐn	MC
	*-aj	*(u)ai ⁵	-a
	*-at-s	*(u)ai C	-aj C
	*-raj	*(u)ai	-ae
	*-ra	*-a	-ae

In the four dialects cited here, the reflexes of Proto-Mǐn *(u)ai are oi-uai-ua-ua after labial initials, and ue-uai-ua-ua elsewhere; the reflexes of Proto-Mǐn *-a are a-a-a-a. These correspondences are illustrated in Table 3.

Table 3: Examples of *-aj monophthongization

	OC final	pMǐn	JY	SB	ZQ	DK	MC
我 wǒ ‘I, me’	*-aj	*ŋuai B	ŋue 9	ɦuai 2	ŋua 5	ŋua 8	nga B
破 pò ‘broken’	*-aj	*phuai C	p ^h oi 5	p ^h uai 5	p ^h ua 5	p ^h ua 5	pha C
帶 dài ‘belt’	*-at-s	*tai C	tue 5	tuai 5	tua 5	tua 5	taj C
大 dà ‘large’	*-at-s	*duai C	tue 6	tuai 6	tua 6	tua 7	daj C
麻 má ‘hemp, sesame’	*-raj	*mhuai A	moi 2	muai 5	mua 2	mua 2	mae A
沙 shā ‘sand’	*-raj	*sai A	sue 1	suai 1	lua 1	lua 1	srae A
牙 yá ‘tooth’	*-ra	*ŋa A	ŋa 2	ŋa 5	ŋa 2	ŋa 2	ŋae A
爬 pá ‘climb’	*-ra	*ba A	pa 2	pa 5	pa 2	pa 2	pae A

⁵ The distinction between Norman’s Proto-Mǐn *-ai and *-uai (1981:44-45, 50-51) is not accounted for in current reconstructions of Old Chinese. In principle, it could reflect a previously unknown distinction in Old Chinese, but it seems more likely that it is an artifact of dialect mixture, and that we should reconstruct Proto-Mǐn *-ai for both: see the discussion in Norman (1984:186-187) and Akitani (2010:195-198). In the examples below, I follow the reconstructions of Norman (1981), which distinguish the two finals; but in any case, they have the same reflexes in Northern Mǐn (the correspondence oi-uai-ua-ua after labial initials, ue-uai-ua-ua elsewhere).

In contrast, literary items in our four Northern Mǐn dialects show the correspondence ɔ-ɔ-o-ɔ corresponding to MC *-a*; the contrast of colloquial and literary reflexes is shown in Table 4.

Table 4: Colloquial and literary correspondences to MC *-a* < OC **-aj*

	MC	C/L	JY	SB	ZQ	DK	pMǐn
磨 <i>mó</i> ‘to grind’	<i>ma A</i>	C	moi 2	muai 5	mua 2	mua 2	*muai A
磨 <i>mó</i> ‘grindstone’	<i>ma C</i>	L	—	mɔ 6	mo 6	mɔ 7	—
籬 <i>luó</i> ‘hamper’	<i>la A</i>	C	sue 2	—	—	lua 2	*lhai A
		L	—	lɔ 5	lo 2	lɔ 2	—
拖 <i>tuō</i> ‘drag’	<i>tha A</i>	C	hue 1	t ^h uai 1	t ^h ua 1	t ^h ua 1	*thai A
		L	hɔ 1	t ^h ɔ 1	—	—	—
我 <i>wǒ</i> ‘I, me’	<i>nga B</i>	C	ŋue 9	fuai 2	ŋua 5	ŋua 8	*ŋuai B
		L	ŋɔ 3	ŋɔ 3	—	—	—
破 <i>pò</i> ‘broken’	<i>pha C</i>	C	p ^h oi 5	p ^h uai 5	p ^h ua 5	p ^h ua 5	*phuai C
		L	p ^h ɔ 5	p ^h ɔ 5	p ^h o 5	p ^h ɔ 5	—

Thus the words in Table 5, which have softened initials but show the final correspondences of literary items, must have been borrowed from another variety of Chinese that had voiced initials; their softened initials are thus secondary and cannot be taken as evidence about Old Chinese.

Table 5: Forms with softened initials and literary correspondences to MC *-a* < OC **-aj*

	MC	JY	SB	ZQ	DK
婆 <i>pó</i> ‘大婆 great-grandmother’	<i>ba A</i>	—	bɔ 2	po 9	pɔ 9
駝 <i>tuó</i> ‘駝背 a hunchback’	<i>da A</i>	lɔ 2	dɔ 2	to 9	tɔ 9
舵 <i>duò</i> ‘rudder, helm’	<i>da B</i>	lɔ 9	dɔ 2	to 9	—

3.2 Vowel apicalization

The Middle Chinese finals *-i* (in the 之 Zhī rime) and *-ij* (in the 脂 Zhī rime) normally correspond to Proto-Mǐn **-i* in native Mǐn vocabulary, for which our four sample dialects have the correspondence oi-i-i-i after dental sibilant initials (i-i-i-i after certain other initials); examples are shown in Table 6. Note that the last item, 字 *zì* ‘character’, has a softened initial, contrasting with 自 *zì* ‘self’. The softened initial in 字 *zì* can be reconstructed for Proto-Mǐn, Norman’s **-dz*; there is no reason to regard it as secondary.

Table 6: Colloquial reflexes of Proto-Mǐn *-i (corresponding to MC *-i*, *-ij*)

	MC	JY	SB	ZQ	DK	pMin
絲 <i>sī</i> ‘silk’	<i>si A</i>	soi 1	ei 1	li 1	li 1	*si A
死 <i>sǐ</i> ‘die’	<i>sij B</i>	soi 3	ei 3	li 3	li 3	*si B
四 <i>sì</i> ‘four’	<i>sij C</i>	soi 5	ei 5	li 5	li 5	*si C
自 <i>zì</i> ‘self’	<i>dzij C</i>	tsoi 6	tei 6	tei 6	tsi 7	*dzi C
字 <i>zì</i> ‘character’	<i>dzi C</i>	loi 6	dzi 6	tei 9	tsi 6	*-dzi C

However, there are also many items with dental sibilant initials that show the correspondence o-u-u-u instead, as in Table 7. This correspondence, characteristic of literary vocabulary, probably indicates that the forms were borrowed from a dialect where syllables of this type had developed a nonfront vowel, perhaps like the ‘apical vowel’ of many modern dialects, usually transcribed as [ɿ].⁶

Table 7: Literary readings corresponding to MC *-i*, *-ij*, and *-je* after dental sibilants

	MC	JY	SB	ZQ	DK
資 <i>zī</i> ‘resources’	<i>tsij A</i>	tso 1	tsu 1	tsu 1	tsu 1
滋 <i>zī</i> ‘nourish(ment)’	<i>tsi A</i>	tso 1	tsu 1	tsu 1	tsu 1
子 <i>zǐ</i> ‘1st Heaven’s stem’	<i>tsi B</i>	tso 3	tsu 3	tsu 3	tsu 3
次 <i>cì</i> ‘a time’	<i>tshij C</i>	tho 5	ts ^h u 5	ts ^h u 5	ts ^h u 5
私 <i>sī</i> ‘private’	<i>sij A</i>	so 1	su 1	lu 1	lu 1

Among words with this correspondence, we also find a number of words with softened initials, as in Table 8.

Table 8: Softened initials before the correspondence o-u-u-u, corresponding to MC *-i* and *-ij*

	MC	JY	SB	ZQ	DK
自 <i>zì</i> ‘自然 nature’	<i>dzij C</i>	lo 6	dzu 6	tsu 5	tsu 8
慈 <i>cí</i> ‘compassionate’	<i>dzi A</i>	lo 2	dzu 2	tsu 9	tsu 9
詞 <i>cí</i> ‘word’	<i>zi A</i>	so 2	dzu 2	tsu 9	tsu 9
祠 <i>cí</i> ‘ancestral temple’	<i>zi A</i>	so 2	dzu 2	tsu 5	—

We can conclude that these words were borrowed from a dialect affected by apicalization. There is no trace of apicalization in the *Qièyùn* system, but it happened early enough to affect the pronunciation of Sino-Korean and Sino-Vietnamese, and accordingly, Pulleyblank (1991) reconstructed the final of these words as [z] in his Late

⁶ The Northern Mǐn correspondence o-u-u-u also occurs after dental sibilants in words with MC *-je* (in the 支 Zhī rime). However, the native Mǐn correspondences to MC *-je* are more complex (apparently including Proto-Mǐn *-i, *-ie, and *-ye), and there are few or no examples relevant to this paper, so I omit them from discussion here.

Middle Chinese, intended to represent the language of the ‘High Táng’ (first half of the 8th century C.E.) and assumed to be the source of the Sino-Korean and Sino-Vietnamese loanwords from Chinese. See Table 9 for examples from Pulleyblank’s Late Middle Chinese, Sino-Korean, and Sino-Vietnamese.⁷

Table 9: Apicalization in Late Middle Chinese, Sino-Korean, and Sino-Vietnamese

	MC	LMC	SK	SV
資 <i>zī</i> ‘resources’	<i>tsij A</i>	<i>tsz</i>	<i>ca</i>	<i>tur</i>
次 <i>cì</i> ‘a time’	<i>tshij C</i>	<i>ts^hz`</i>	<i>cha</i>	<i>thứ</i>
私 <i>sī</i> ‘private’	<i>sij A</i>	<i>sʒ</i>	<i>sa</i>	<i>tur</i>
自 <i>zì</i> ‘自然 nature’	<i>dzij C</i>	<i>tsfʒz`</i>	<i>ca</i>	<i>tư</i>
慈 <i>cí</i> ‘compassionate’	<i>dzi A</i>	<i>tsfʒz</i>	<i>ca</i>	<i>từ</i>
詞 <i>cí</i> ‘word’	<i>zi A</i>	<i>sfʒz</i>	<i>sa</i>	<i>từ</i>
祠 <i>cí</i> ‘ancestral temple’	<i>zi A</i>	<i>sfʒz</i>	<i>sa</i>	<i>từ</i>

We can find direct evidence for apicalization in the pronunciations given for rime words in *Shī jí zhuàn* 詩集傳, an edition of the *Shījīng* 詩經 by Zhū Xī 朱熹 (1130-1200), written in about 1177; these pronunciations are especially interesting because Zhū Xī spent a significant part of his life in Fújiàn, and particularly in Jiànyáng (Wáng Mào'hóng 1998). In his commentary, along with indicating the pronunciations of difficult words, Zhū Xī also followed the practice called *xiéyùn* 叶韻 ‘harmonizing rimes’, by which rime words were given special ad hoc pronunciations so as to make them rime in contemporary pronunciation. As an example, consider the second stanza of Ode 16 (Shào nán: Gān táng 召南 · 甘棠), presented in Table 10 (here and below, the translation is adapted from Karlgren 1950):

Table 10: Ode 16.2 (Shào nán: Gān táng 召南 · 甘棠), with Zhū Xī’s annotations

Ode 16.2	rime	MC	OC	Zhū Xī’s annotation
1 蔽芾甘棠 <i>bì fèi gān táng</i>	—			
2 勿剪勿敗 <i>wù jiǎn wù bài</i>	敗 <i>bài</i>	<i>paej C</i>	*p ^s rat-s	叶蒲寐反 <i>xié = bu A + mʲij C</i>
3 召伯所憩 <i>Shào bó suǒ qì</i>	憩 <i>qì</i>	<i>khjej C</i>	*k ^h rat-s	起例反 <i>= khi B + lʲej C</i>

1 Luxuriant is the sweet pear-tree;

2 Don’t cut it down, don’t destroy it;

3 It is where the prince of Shào rested.

⁷ The Sino-Korean forms are the modern Korean forms, given in the Yale romanization; Sino-Vietnamese forms are in the standard orthography.

We assume that lines 2 and 3 rimed in Old Chinese, and we base our Old Chinese reconstructions in part on that assumption. But they do not rime now, they did not rime according to the Middle Chinese of the *Qièyùn*, and they did not rime for Zhū Xī. He gives a *fǎnqiè* 反切 spelling 起例反 = *kh(i) B* + *(l)jei C* = *khjei C* for 憩 *qì* ‘rest’ in line three, presumably to help the reader, because it is not a very common word. But the annotation ‘叶蒲寐反’ for 敗 *bài* < MC *baej C* gives an ad hoc pronunciation (corresponding to ‘*bjij C*’ in the *Qièyùn* system) which makes the rime words rime in contemporary pronunciation. This tells us at least two things: (1) he did not consider 敗 *bài* < MC *baej C* and 憩 *qì* < MC *khjei C* to be a good rime, and (2) he did consider 寐 *mèi* < MC *mji C* to be a good rime with 憩 *qì* < MC *khjei C* and 例 *lì* < MC *ljei C* (on this point, see the discussion in §3.3 below).

Now consider the following stanza from Ode 22.1 (Shào nán: Jiāng yǒu sì 召南·江有汜), given in Table 11.

Table 11: Ode 22.1 (Shào nán: Jiāng yǒu sì 召南·江有汜), with Zhū Xī’s annotations

Ode 22.1	rime	MC	OC	Zhū Xī’s annotation
1 江有汜 <i>Jiāng yǒu sì</i>	汜 <i>sì</i>	<i>zi B</i>	*s-[ɕ]ə?	音祀、叶羊里反 pronounced <i>zi B</i> ; <i>xié = yang A + li B</i>
2 之子歸 <i>zhī zǐ guī</i>	—			
3 不我以 <i>bù wǒ yǐ</i>	以 <i>yǐ</i>	<i>yi B</i>	*lə?	
4 不我以 <i>bù wǒ yǐ</i>	以 <i>yǐ</i>	<i>yi B</i>	*lə?	
5 其後也悔 <i>qí hòu yě huǐ</i>	悔 <i>huǐ</i>	<i>xwoj B</i>	*m̥ʰə?	叶虎洧反 <i>xié = xu B + hwij B</i>

1 The Jiāng has branches breaking out and reverting;

2 this young lady is going to her new home,

3 but she does not take us;

4 she does not take us.

5 Later she will regret it.

Zhū Xī believed (correctly) that the rime words are 汜 *sì*, 以 *yǐ* (twice), and 悔 *huǐ*, but they did not rime in his own pronunciation, so he supplied *xiéyùn* pronunciations for 汜 *sì* and 悔 *huǐ* so as to make them rime with 以 *yǐ*. This tells us that 汜 *sì* < MC *zi B* and 以 *yǐ* < MC *yi B*, which rime perfectly well in the *Qièyùn* system, did not rime for him in ordinary pronunciation. We can conclude that apicalization had affected the vowel of 汜 *sì* < MC *zi B* but not that of 以 *yǐ* < MC *yi B*. Thus for 汜 *sì* he supplied the *fǎnqiè* spelling 羊里反, whose second speller 里 *lǐ*

< MC *li B* was not affected by apicalization, indicating an ad hoc pronunciation of 汜 *sì* with [i] instead of the apical vowel. The same phenomenon can be observed throughout *Shī jí Zhuàn*, in Odes 30.2, 33.3, 34.4, 35.1, 37.4, 39.1, 39.2, 52.2, 52.3, etc.⁸

The pronunciation on which Zhū Xī’s annotations were based would not have been his own local dialect (whatever that may have been), but a conventional pronunciation considered appropriate for reciting classical texts, probably broadly consistent with the actual pronunciation of the spoken lingua franca used at the time by scholars and officials—a likely candidate for the source of the literary loans in Northern Mǐn.

3.3 Merger of MC *-ej* with *-i* and *-ij*

In dialects that distinguish them, words with the Middle Chinese final *-ej* (in the 齊 *Qí* rime) generally have nonhigh vowels, and words with MC *-i* and *-ij* (the 之 *Zhī* and 脂 *Zhī* rimes) have high vowels. The two sets do not rime according to the *Qièyùn* system, and they have distinct correspondences in native Mǐn vocabulary, as shown in Table 12. Where Middle Chinese has *-ej*, in native vocabulary Northern Mǐn has either the correspondence *ie-ie-ie-iε* (as if from Proto-Mǐn **-ie*), as in examples 1, 2, and 3, or the correspondence *ai-ai-ai-ε* (as if from Proto-Mǐn **-əi*), as in the remaining examples in the table.

Table 12: Northern Mǐn correspondences to MC *-ej*

	MC	JY	SB	ZQ	DK
1 啼 <i>tí</i> ‘wail’	<i>dej A</i>	hie 2	thie 5	thie 2	thie 2
2 弟 <i>dì</i> ‘YoBr’	<i>dej B</i>	tie 5	tie 1	tie 6	tiε 4
3 剃 <i>tì</i> ‘shave’	<i>thej C</i>	hie 5	(thai 5)	thie 5	thie 5
4 蹄 <i>tí</i> ‘hoof’	<i>dej A</i>	tai 2	tai 5	tai 2	te 2
5 泥 <i>ní</i> ‘mud’	<i>nej A</i>	nai 2	nai 5	nai 2	nε 2
6 犁 <i>lí</i> ‘plow’	<i>lej A</i>	lai 2	lai 5	lai 2	le 2
7 西 <i>xī</i> ‘west’	<i>sej A</i>	sai 1	sai 1	lai 1	le 1
8 雞 <i>jī</i> ‘chicken’	<i>kej A</i>	kai 1	kai 1	kai 1	kε 1
9 溪 <i>xī</i> ‘river’	<i>khej A</i>	k ^h ai 1	k ^h ai 1	k ^h ai 1	k ^h ε 1
10 洗 <i>xǐ</i> ‘wash’	<i>sej B</i>	sai 3	sai 3	lai 3	le 3
11 替 <i>tì</i> ‘replace’	<i>thej C</i>	hai 5	thai 5	thai 5	thε 5
12 細 <i>xì</i> ‘thin’	<i>sej C</i>	sai 5	sai 5	lai 5	le 5

⁸ Judging from Zhū Xī’s *xiéyùn* annotations, apicalization had affected words with dental sibilant initials (corresponding to MC *ts-*, *tsh-*, etc., the 精 *Jīng* set) and retroflex affricates (MC *tsr-*, *tsrh-*, etc., the 莊 *Zhuāng* set) but not those with Middle Chinese palatal initials (*tsy-*, *tsyh-*, etc., the 章 *Zhāng* set) or the retroflex stops (*tr-*, *trh-* etc., the 知 *Zhī* set), which retained their front vowels. Zhū Xī’s *fānqiè* are studied in Wáng Lì (1991 [1982]).

But in literary vocabulary, where Middle Chinese has *-ej*, Northern Mǐn has the correspondence oi-i-i-i (i-i-i-i in some environments), the same correspondence as Proto-Mǐn *-i, which in native vocabulary corresponds to MC *-i* or *-ij*, as we saw in the previous section. Some of these literary words have softened initials; see Table 13.

Table 13: Softened initials in items with literary correspondences to MC *-ej*

	MC	JY	SB	ZQ	DK
題 <i>tí</i> ‘topic’	<i>dej A</i>	loi 9	dí 2	tí 9	tí 9
提 <i>tí</i> ‘lift up’	<i>dej A</i>	loi 2	dí 2	tí 9	tí 9
齊 <i>qí</i> ‘orderly’	<i>dzej A</i>	loi 2	dzi 2	tei 9	tsi 9
弟 <i>dì</i> ‘YoBr’	<i>dej B</i>	loi 5	dí 5	tí 5	tí 8
第 <i>dì</i> ‘number, -th’	<i>dej C</i>	loi 5	dí 2	tí 9	tí 8

These words were evidently borrowed from a dialect that still retained voiced obstruent initials, but in which MC *-ej* had merged with MC *-i* and *-ij*. Pulleyblank’s reconstruction of Late Middle Chinese (1984, 1991) does not reflect this merger; but according to Zhōu Zǔmó (1966:611), the merger is reflected in the pronunciation tables of *Huáng jí jīng shì* 皇極經世, a cosmological and numerological work by Shào Yōng 邵雍 (1011-1077), and in poetry written in the Northern Sòng (960-1127). It is also reflected in Zhū Xī’s *xiéyùn* annotations, where he does *not* find it necessary to supply *xiéyùn* readings in cases where MC *-ej* rimes with MC *-ij* (e.g. in Ode 30.3 and 52.4)—unless the MC *-ij* is in a syllable that has undergone apicalization.

The next two innovations discussed do not involve softened initials, but they are found in literary vocabulary and therefore help us to identify the source or sources from which that vocabulary was borrowed.

3.4 Denasalization of MC *ny-* (日 Rì)

Where Middle Chinese has initial *ny-*, colloquial Mǐn vocabulary normally has a nasal initial, as in the examples in Table 14.

Table 14: Northern Mǐn nasals corresponding to MC *ny-*

	MC	JY	SB	ZQ	DK
二 <i>èr</i> ‘two’	<i>nyij C</i>	noi 6	ní 6	ní 6	ní 7
染 <i>rǎn</i> ‘to dye’	<i>nyem B</i>	nieŋ 3	niŋ 3	niŋ 3	nie 3
人 <i>rén</i> ‘person’	<i>nyin A</i>	noiŋ 2	neiŋ 5	neiŋ 2	neiŋ 2
日 <i>rì</i> ‘sun, day’	<i>nyit D</i>	noi 8	ní 2	ní 5	ní 8
入 <i>rù</i> ‘enter’	<i>nyip D</i>	noi 8	ní 2	ní 5	ní 8

But in literary vocabulary, Northern Mǐn normally has a zero initial (/f/ in Shíbēi) corresponding to MC *ny-*, as in Table 15.

Table 15: Literary vocabulary with MC *ny-*

	MC	JY	SB	ZQ	DK
然 <i>rán</i> ‘thus’	<i>nyen A</i>	ieŋ 2	fiŋ 2	iŋ 9	ieŋ 9
熱 <i>rè</i> ‘hot’	<i>nyet D</i>	ie 3	fiɛ 3	ie 9	ie 9
仁 <i>rén</i> ‘benevolence’	<i>nyin A</i>	iŋ 2	fiɛŋ 2	iŋ 9	ieŋ 9
如 <i>rú</i> ‘like, as’	<i>nyo A</i>	y 2	fiy 2	y 9	y 9
若 <i>ruò</i> ‘as if’	<i>nyak D</i>	io 8	fio 2	io 3	io 6

If the source dialect had had a nasal initial in the words of Table 15, there is no reason these words could not have been borrowed with the nasal in Northern Mǐn. We can conclude that the source dialect either had a zero initial in these forms, or had some other initial (such as [r]) that was absent from the native phonology and was therefore ignored. This effectively eliminates Wú dialects as the source of the loans. Note that the denasalization of MC *ny-* is understood to be one of the characteristics of the Cháng’ān dialect that was the main basis for Late Middle Chinese (Pulleyblank 1984:66).

3.5 Denasalization of labiodentalized MC *m-* (微 Wēi)

The name 微 Wēi is traditionally given to the initial consonant of those cases of MC *m-* that underwent labiodentalization in northern dialects, becoming [v] or [w]. This 微 Wēi is commonly spoken of as an initial consonant of Middle Chinese, but at least for the early Middle Chinese dialects represented in the *Qìyùn*, this is inaccurate, since the *Qìyùn* shows no sign of labiodentalization. The change from MC *m-* to [v] or [w] was conditioned by features of the following final; the details need not concern us here. Like the denasalization of MC *ny-*, the denasalization of *m-* is characteristic of northern dialects: colloquial vocabulary in the southern dialects, including Northern Mǐn, preserves the initial [m], as illustrated in Table 16.

Table 16: Northern Mǐn initial [m] corresponding to standard Mandarin [w] < MC *m-*

	MC	JY	SB	ZQ	DK	pMǐn
尾 <i>wěi</i> ‘tail’	<i>mij B</i>	mui 3	mo 3	moi 3	moi 3	*muəi B
問 <i>wèn</i> ‘ask’	<i>mjun C</i>	mun 6	mən 6	mon 6	mui 7	*mon C
襪 <i>wà</i> ‘socks’	<i>mjot D</i>	moi 8	muai 2	mua 5	mua 8	*miot D
網 <i>wǎng</i> ‘net’	<i>mjang B</i>	mən 3	mən 3	mon 5	mən 8	*mon B
望 <i>wàng</i> ‘look’	<i>mjang C</i>	mən 6	mən 6	—	mən 7	*mon C

In fact, labiodentalization did not affect the native Mǐn vocabulary at all: where most dialects have labial fricatives corresponding to MC *p*-, *ph*-, and *b*-, Mǐn dialects still generally have labial stops in native vocabulary (except for reflexes of Proto-Mǐn softened **-p* and **b*, like the [v] in Jiànyáng). But in literary vocabulary, Northern Mǐn usually has [x], [xu], [h], or [hu] where other dialects have [f], as in Table 17.

Table 17: Literary correspondences to labiodental fricatives

	MC	JY	SB	ZQ	DK
夫 <i>fū</i> ‘man’	<i>pju A</i>	xo 1	xu 1	hu 1	hu 1
方 <i>fāng</i> ‘side; square’	<i>pjang A</i>	xuoŋ 1	xəŋ 1	huanŋ 1	huanŋ 1
風 <i>fēng</i> ‘wind’	<i>pjuwng A</i>	xoŋ 1	xəŋ 1	hoŋ 1	həŋ 1
福 <i>fú</i> ‘blessing’	<i>pjuwk D</i>	xo 7	xu 7	hu 3	hu 7

It is no surprise that labiodentalization had occurred in the dialect or dialects from which Northern Mǐn literary vocabulary was borrowed, since this is true of most dialects. But the denasalization of labiodentalized *m*- gives us more specific information: it indicates that the source dialect was of a northern type. The Northern Mǐn correspondences to labiodentalized *m*- are quite interesting; see Table 18.

Table 18: Northern Mǐn literary correspondences to labiodentalized MC *m*-

	MC	JY	SB	ZQ	DK
無 <i>wú</i> ‘not have’	<i>mju A</i>	vo 2	fiu 2	u 9	u 9
舞 <i>wǔ</i> ‘dance’	<i>mju B</i>	vo 3	fiu 3	u 9	u 9
微 <i>wēi</i> ‘tiny’	<i>mji A</i>	voi 2	bi 2	ui 9	ui 9
萬 <i>wàn</i> ‘10,000’	<i>mjon C</i>	vaiŋ 6	fiuaiŋ 6	uaiŋ 9	uai 6
文 <i>wén</i> ‘writing’	<i>mjun A</i>	vun 2	bueiŋ 2	uan 9	ui 9

The reflexes in Jiànyáng, Zhènqián, and Díkǒu are straightforward: they could reflect [v], [w], [ʋ], or perhaps [β] in the source dialect. (The Jiànyáng initial written here as ‘v’ is phonetically [ʋ] according to Norman 1971:20.) Shíbēi sometimes has [h] and sometimes [b]: it is not clear whether this distinction is conditioned by the final, or whether the forms belong to different layers. The [b] could have developed from earlier [β] or [v] in an earlier form of Northern Mǐn; or [b] might have been the closest approximation to the initial of the source dialect’s [v], [ʋ], or [β]. It seems less likely that the source dialect had a phonetic [w], which probably could have been represented more directly. We probably cannot infer that the source dialect had prenasalized stop [ᵐb], since there is no sign of prenasalized stops corresponding to the other nasals [n] or [ŋ].

4. Conclusion

From the innovations reflected in Northern Mǐn literary vocabulary, we can make some inferences about the source dialect from which it was borrowed: (1) it still had voiced or murmured stops and affricates corresponding to those of the *Qièyùn* system; (2) syllables like MC *tsi*, *tsij* had undergone the change we refer to as apicalization; (3) MC *-ej* had merged with MC *-i* and *-ij* (except where these had become apicalized); and (4) there was denasalization of MC *ny-* and of those cases of MC *m-* subject to labiodentalization.

The preservation of Middle Chinese voiced obstruents naturally reminds us of the dialects classified as Wú, which are just to the north of Northern Mǐn. But the innovations listed, especially the denasalizations, seem to rule out Wú as the source of the main layer of literary vocabulary. A better candidate is an early form of the dialect of Hángzhōu. Although previously classified as Wú because it retains voiced obstruents, the Hángzhōu dialect has convincingly been shown to be a conservative northern or Mandarin dialect, brought to the region when the Sòng court made Hángzhōu its capital, moving en masse from Kāifēng as North China fell to the Jīn invaders (see Simmons 1992, Norman 2004, Simmons 2011:7-28). In Southern Sòng (1127-1279), this dialect had probably become the main lingua franca of scholarship and official business.⁹ Jiànyáng was a major center of education and publishing at the time; Zhū Xī himself lived in Jiànyáng, and established schools there, teaching students from various parts of China. It is not surprising that the local dialects of the region would borrow vocabulary from the language that would have been used in these settings. A better understanding of this aspect of Northern Mǐn dialect history will help us determine which aspects of these dialects result from contact with this early form of Mandarin, and which reflect genuinely old phenomena that can be used to reconstruct earlier Chinese language history.

⁹ As one anonymous reviewer pointed out, this does not mean that Hángzhōu would have been the only source of literary borrowings in Northern Mǐn; the situation was probably more complex.

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閩北方言中有「弱化」聲母的借詞

白一平

密西根大學

閩北方言的弱化聲母既很難全部用以切韻為基礎的中古音系統來解釋，又很難歸因於別的方言的影響。弱化聲母至少有一部分應該代表一種相當古老的現象：在切韻系統裡沒有它的反應，而閩北方言還保留它的痕跡。雖然如此，也有一部分弱化聲母是在比較文的詞彙階層裡出現的。這一部分帶弱化聲母的詞彙確實是向另外一種方言借來的，弱化聲母相當於那個方言的全濁聲母。像中古音一樣，在那個方言裡，上古漢語的歌部字失掉了原來的 *j 韻尾。但雖然那個方言保留中古音的全濁聲母，它大概不屬於吳語，因為它也有幾個北方方言的特點：(1) 帶精組聲母的止攝音節是舌尖化的；(2) 蟹攝的三、四等音節跟止攝音節押韻；(3) 傳統的「日」母和「微」母是非鼻音化的。閩北方言那些有文讀的詞彙很可能來自一種以南宋首都杭州方言為基礎的早期「官話」。

關鍵詞：閩北方言，弱化聲母，上古漢語，借詞，早期官話

On the Relationship between Tones and Initials of the Dialects in the Shànghǎi Area^{*}

Zhongmin Chen
Fudan University

This five-part study is an analysis of the relationship between tones and initials in the dialects of the Shànghǎi area. Part one presents the classification of the dialects in the Shànghǎi area. Part two addresses the general relationship between tones and initials. Part three discusses the nature of voiceless stops followed by vowels with breathy phonation and the relationship between the stops and tones. Part four addresses the influence of aspirated stops on tones. Part five discusses the nature and distribution of the pre-glottalized stops and the influence of pre-glottalized stops on tones. Part six is a conclusion.

Key words: initial, tone, breathy phonation, aspirated tone, pre-glottalized stop

1. General overview of tonal systems in the dialects of the Shànghǎi area

There are five different types of tonal systems in the dialects of the Shànghǎi area. Based on this, I divide the dialects in the Shànghǎi area into five subgroups (Chén 1992, 2011): the Chóngmíng 崇明 subgroup, the Jiāding 嘉定 subgroup, the Sōngjiāng 松江 subgroup, the Liàntáng 練塘 subgroup and the Urban subgroup. Table 1.1 shows the five tonal systems and the tonal values for the dialects in the town of Chéngqiáo 城橋, as a representative of the Chóngmíng subgroup; the town of Jiāding, as a representative of the Jiāding subgroup; the town of Sōngjiāng, as a representative of the Sōngjiāng subgroup; the town of Liàntáng, as a representative of the Liàntáng subgroup and the city of Shànghǎi, as a representative of the Urban subgroup.¹

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¹ Single Arabic numerals 1, 2, 3, 4, 5, 6, 7 and 8 are placed at the upper right corner of each syllable to indicate the eight tonal categories of *yīnpíng* 陰平, *yángpíng* 陽平, *yīnshǎng* 陰上, *yángshǎng* 陽上, *yīnqù* 陰去, *yángqù* 陽去, *yīnrù* 陰入 and *yángnrù* 陽入 respectively. An

Table 1.1: The five tonal systems and their tonal values in Shànghǎi area dialects

	The Upper (<i>Yīn</i>) Category					The Lower (<i>Yáng</i>) Category			
	<i>Píng</i> 1	<i>Shǎng</i> I 3	<i>Shǎng</i> II 3'	<i>Qù</i> 5	<i>Rù</i> 7	<i>Píng</i> 2	<i>Shǎng</i> 4	<i>Qù</i> 6	<i>Rù</i> 8
Chóngmíng	53	435		44	<u>55</u>	13	31	213	<u>12</u>
Jiǎdìng	53	34			<u>55</u>	31	13		<u>12</u>
Sōngjiāng	53	44		35	<u>55</u>	31	22	13	<u>12</u>
Liàntáng	53	412	44	35	<u>55</u>	31	22	13	<u>12</u>
Urban	53	34			<u>55</u>	13		<u>12</u>	

The difference between *yīnshǎng* I and *yīnshǎng* II is that *yīnshǎng* II is a tone whose syllable has an aspirated stop as its initial, while the remaining ordinary *yīnshǎng* syllables belong to the *yīnshǎng* I category. The following are some examples:

	東	懂	統	凍	篤	銅	動	洞	毒
Chóngmíng	toŋ ⁵³	toŋ ⁴³⁵	tʰoŋ ⁴³⁵	toŋ ⁴⁴	toʔ ⁵⁵	doŋ ¹³	doŋ ³¹	doŋ ²¹³	doʔ ¹²
Jiǎdìng	toŋ ⁵³	toŋ ³⁴	tʰoŋ ³⁴	toŋ ³⁴	toʔ ⁵⁵	doŋ ³¹	doŋ ¹³	doŋ ¹³	doʔ ¹²
Sōngjiāng	?doŋ ⁵³	?doŋ ⁴⁴	tʰoŋ ⁴⁴	?doŋ ³⁵	?doʔ ⁵⁵	doŋ ³¹	doŋ ²²	doŋ ¹³	doʔ ¹²
Liàntáng	toŋ ⁵³	toŋ ⁴¹²	tʰoŋ ⁴⁴	toŋ ³⁵	toʔ ⁵⁵	doŋ ³¹	doŋ ²²	doŋ ¹³	doʔ ¹²
Urban	toŋ ⁵³	toŋ ³⁴	tʰoŋ ³⁴	toŋ ³⁴	toʔ ⁵⁵	doŋ ¹³	doŋ ¹³	doŋ ¹³	doʔ ¹²

In both the Chóngmíng and Sōngjiāng dialects, there are eight tones. However, from the viewpoint of tonal values in these five dialects, it is clear that the Chóngmíng shows the most impressive difference from the rest of the four dialects. Tonal values of *yīnshǎng*, *yīnqù*, *yángpíng*, *yángshǎng* and *yángqù* in Chóngmíng differ from those in the other four dialects respectively. On the other hand, in the Sōngjiāng subgroup, the case is different. All of the tonal values of Sōngjiāng can be found in the corresponding tonal categories of the Jiǎdìng, Liàntáng and Urban subgroups. There are six tones in Jiǎdìng. *Yīnshǎng* merges with *yīnqù* and *yángshǎng* merges with *yángqù*, but the *yángpíng* remains independent from the *yángshǎng* and *yángqù* categories, unlike the same tone categories in the Urban subgroup. The remarkable characteristic of the tonal system in Liàntáng is the split of the *yīnshǎng* tone into two subtypes conditioned by whether or not the initial stop is aspirated. As a consequence of this, the maximum number of tones in the Liàntáng subgroup is nine. This characteristic does not exist in the other four subgroups. In the Urban subgroup, the *yīnshǎng* and *yīnqù* merge into

apostrophe “ ’ ” after a single Arabic numeral represents an aspirated tone, a tonal split conditioned by the syllable with an aspirated initial stop. More than one Arabic numeral placed in the same position indicates the tone value. Tone sandhi forms are marked after the tone value of citation forms separated by a small horizontal line “-”.

one category, while the *yángpíng*, *yángshǎng* and *yángqù* merge into another. Therefore the total number of tones in the Urban subgroup is five. Map 1 shows the distribution of these five subgroups in the Shànghǎi area (Xǔ, Tāng & Chén 1993).

2. The general relationship between tones and initials

The phenomenon of close relationships between tones and consonantal initials is well known in linguistic scholarship. Generally, in Southeast Asian tonal languages, syllables with voiced initials have low tonal values with voiced initials have low tonal values (lower register), while syllables with voiceless initials have high tonal values (upper register). If we examine the data of the dialects in the Shànghǎi area, this statement does not hold true, or should at least be revised in some way.

2.1 Classified by the manners of articulation, there are eight types of initials. (In order to show true utterances, I use phonetic transcription in the following discussion. In addition, I use the *h* to indicate a vowel with breathy phonation following a consonant.):

- (1) voiceless unaspirated stops: *p, t, k, ts, tɕ*...
- (2) voiceless fricatives: *f, h, ɸ, ɕ, s*...
- (3) voiceless aspirated stops: *p^h, t^h, k^h, ts^h, tɕ^h*...
- (4) pre-glottalized stops: *ʔb, ʔd, ʔj*.
- (5) nasal and lateral initials followed by vowels with breathy phonation: *m^h, n^h, ŋ^h, ŋ^h*...
- (6) nasal and lateral initials with glottal stop ʔ as an onset: *ʔm, ʔn, ʔŋ, ʔŋ*...
- (7) voiceless stops followed by vowels with breathy phonation: *p^h, t^h, k^h, ts^h, tɕ^h*...
- (8) voiceless fricatives followed by vowels with breathy phonation: *ɸ^h, f^h, s^h, ɕ^h, h^h*...

Initials in types (7) and (8) are traditionally called “voiced” initials. However, from a phonetic viewpoint, these initials are often characterized as voiceless consonants followed by vowels with breathy phonation (Chao 1928, Cao & Maddieson 1992, Chén 2010). We will discuss these issues in §3.

In the above list, initials of type (4), (5) and (6) are truly voiced consonants. The initials of type (4) are called pre-glottalized stops or voiced implosives (Li 1943, Ladefoged 1993:133). The initials of type (5) are nasal and lateral initials followed by vowels with breathy phonation. The initials of type (7) and (8) are voiceless consonants followed by vowels with breathy phonation. The relationship between various types of initials and the tonal registers is shown in Table 2.1:

Table 2.1: The relationship between initials and tonal registers

	Upper register tone	Lower register tone
Type (1) voiceless	+	
Type (2) voiceless	+	
Type (3) voiceless	+	
Type (4) voiced	+	
Type (5) voiceless stops followed by vowels with breathy phonation		+
Type (6) voiced	+	
Type (7) voiceless stops followed by vowels with breathy phonation		+
Type (8) voiceless stops followed by vowels with breathy phonation		+

From the above table, it is clear that a syllable with a voiceless stop followed by a vowel with breathy phonation has a low pitch, regardless of whether the initial consonant is voiced or voiceless.

The tonal system in the Sōngjiāng dialect is a good example of this fact. There are eight tones in Sōngjiāng. The tonal system maintains all the classic categories, *píng*, *shǎng*, *qù* and *rù*, and the classic four tones are divided into upper (*yīn*) and lower (*yáng*) registers, respectively, conditioned by whether or not the syllable has breathy phonation after a consonant. While each pair has nearly the same tone contour, the tone values of the upper register are higher than the corresponding ones in the lower register. Table 2.2 gives the tonal system of the Sōngjiāng dialect.

Table 2.2: The tonal system of the Sōngjiāng dialect

	<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
Upper register	53 東 ?don ⁵³	44 懂 ?don ⁴⁴	35 凍 ?don ³⁵	<u>55</u> 篤 ?do ⁵⁵
Lower register	31 銅 thon ³¹	22 動 thon ²²	13 洞 thon ¹³	<u>12</u> 毒 tho ¹²

In some other dialects, although each pair of upper and lower register *píng*, *shǎng*, *qù* and *rù* do not have the same tone contour, the characteristic of the upper register having higher tone values and the lower register having lower tone values is kept intact. See the tonal system of Chóngmíng dialect in Table 2.3.

Table 2.3: The tonal system of the Chóngmíng dialect

	<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
Upper register	53 東 ton ⁵³	435 懂 ton ⁴³⁵	44 凍 ton ⁴⁴	<u>55</u> 篤 to ⁵⁵
Lower register	13 銅 thon ¹³	31 動 thon ³¹	213 洞 thon ²¹³	<u>12</u> 毒 tho ¹²

2.2 Because of this rigid relationship between initials and tones, tonal mergers only occur among tones in the same register. See, for example, the tonal systems in the Qīngpǔ 青浦, Jiāding and the Urban subgroups in Tables 2.4, 2.5, and 2.6.

Table 2.4: The tonal system of the Qīngpǔ dialect

	<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
Upper register	53 東 ?don ⁵³	44 懂 ?don ⁴⁴	35 凍 ?don ³⁵	55 篤 ?doʔ ⁵⁵
Lower register	31 銅 tʰon ³¹	13 動 = 洞 tʰon ¹³		12 毒 tʰoʔ ¹²

Table 2.5: The tonal system of the Jiāding dialect

	<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
Upper register	53 東 ton ⁵³	34 懂 = 凍 ton ³⁵		55 篤 toʔ ⁵⁵
Lower register	31 銅 tʰon ³¹	13 動 = 洞 tʰon ¹³		12 毒 tʰoʔ ¹²

Table 2.6: The tonal system of the Urban subgroup

	<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
Upper register	53 東 ton ⁵³	34 懂 = 凍 ton ³⁴		<u>55</u> 篤 toʔ ⁵⁵
Lower register	13 銅 = 動 = 洞 tʰon ¹³			<u>12</u> 毒 tʰoʔ ¹²

The tonal system of the Urban subgroup is the simplest one in the area, with only five citation tones and no cross-register merger. Tonal mergers only occur among tones in the same register.

3. The relationship between voiceless consonants followed by vowels with breathy phonation and tones

3.1 Preservation of the three-way distinction of the initial obstruent stops of Middle Chinese is the most prominent phonological characteristic of Wú dialects. In addition to voiceless aspirated and unaspirated stops, all the Wú dialects, including the dialects in the Shànghǎi area, possess a third series, normally identified as all voiced stops. However, the precise phonetic nature of this series is not truly voiced. It is commonly believed that initials in the third series have a lenis voiceless onset followed by a vowel with breathy phonation. Therefore, the difference between type (1) and type (7) is not that the initials themselves are voiced or voiceless, but rather is due to the different phonation of the vowels that follow. Figure 3.1 shows the difference between the stops of type (1) (left side “拜” [pa³⁴]) and type (7) (right side “牌” [pʰa¹³]) in the Urban subgroup:

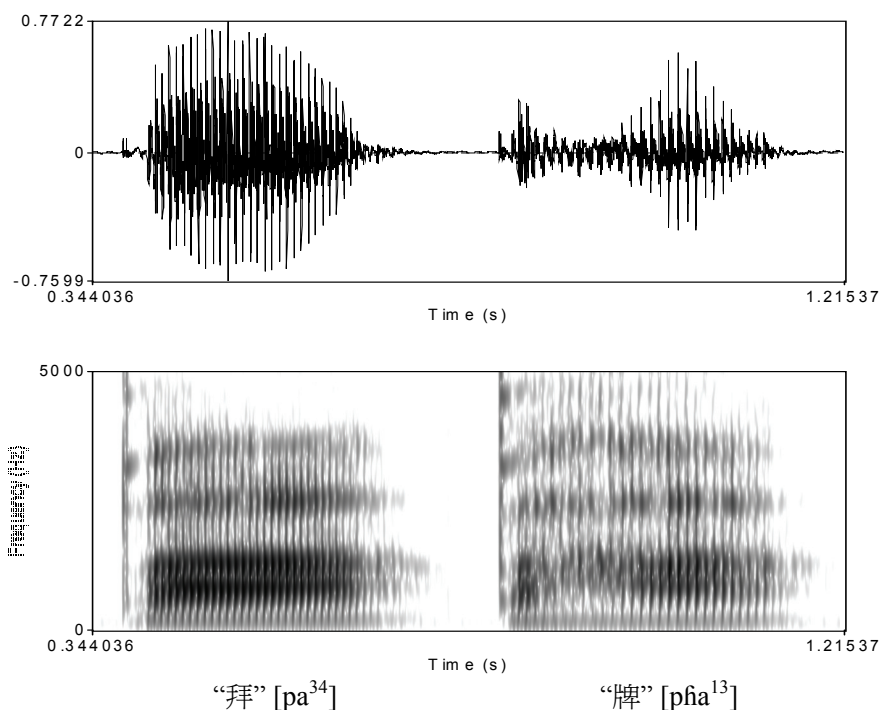


Figure 3.1: The waveform and spectrogram of “拜” [pa³⁴] “牌” [pfa¹³] in the Urban Subgroup

The above spectrograms indicate that neither of these stops is voiced; in both words, vocal fold vibration starts after the stop release, and they have very similar positive voice onset time (VOT) value. Breathy phonation is thought to involve minimal adductive tension. The vocal cords vibrate very inefficiently and they never come fully together (Ní Chasaide & Gobl 1999). Consequently, more energy is lost during pronunciation, and considerable constant glottal leakage with some audible frication noise occurs. The breathy phonation waveform on the right side of the upper part of Figure 3.1 has much less energy, as shown by comparing the normal voice of the left side. There is also a greater random noise component in the breathy spectrum in the right side of the low part of Figure 3.1. It is believed that this voice quality difference in the vowels that follow contributes perceptibly to the stop contrast (Chao 1928, Cao & Maddieson 1992, Chén 2010).

3.2 This specific voice quality occurs not only in syllables of type (7), but also in type (8) and type (5), and is associated with lower register tones in Wú. In dialects of

the Shànghǎi area, mono-syllabic morphemes with breathy voice are associated with lower register tones, and always occur in the initial position of a phrase and never in a medial position. When the same morpheme moves to the medial position of a phrase, it becomes a true voiced consonant followed by a vowel with normal voicing and can be associated with higher register or lower register tones, depending on the pattern of tone sandhi. Figure 3.2 shows the waveforms and spectrograms for the words “道地” [tʰɔ¹³⁻²² di¹³⁻⁴⁴], “地道” [tʰi¹³⁻²² dɔ¹³⁻⁴⁴] in the Urban subgroup. Both words can have the meaning ‘real, genuine’. When either “地” or “道” occurs in the initial position of a two-syllable word, the stops of these words are voiceless, and the phonation type of the following vowels is the breathy voice associated with lower register tone. In the medial position, the stops of “地” and “道” become voiced. In Figure 3.2, we can see the faint voicing striations near the baseline of the spectrograms in the medial position of words “道地” [tʰɔ¹³⁻²² di¹³⁻⁴⁴] and “地道” [tʰi¹³⁻²² dɔ¹³⁻⁴⁴] during stop closure in the Urban subgroup. The phonation of the following vowel changes to the normal voicing associated with upper register tones.

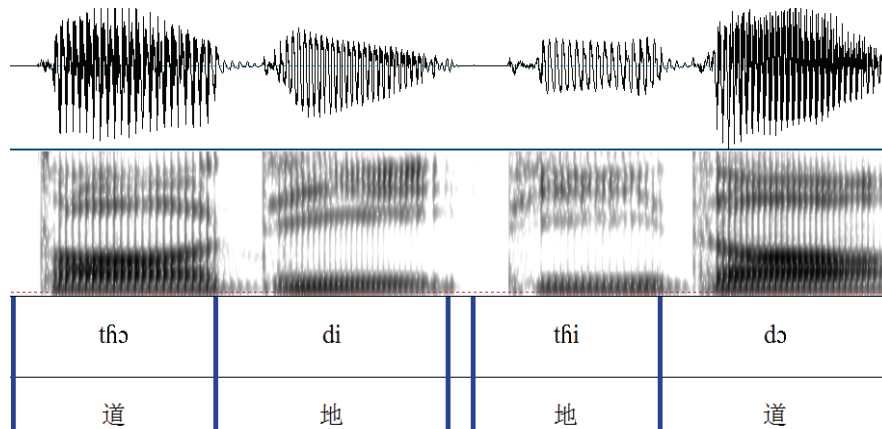


Figure 3.2: The waveform and spectrogram of words “道地” [tʰɔ¹³⁻²² di¹³⁻⁴⁴], “地道” [tʰi¹³⁻²² dɔ¹³⁻⁴⁴] in the Urban subgroup

Table 3.1: Summary of preceding discussion

	<i>VOT Value</i>	<i>Phonation Types of Following Vowel</i>	<i>Tone Register</i>
<i>Initial position</i>	> 0	Breathy voice	Lower register
<i>Medial position</i>	< 0	Normal voice	Upper register or lower register depending on the patterns of tone sandhi

4. The influence of aspirated stops on tones

4.1 In most Wú dialects, tones are divided into two registers: upper register (*yīn*) tones and lower register (*yáng*) tones. As mentioned above, generally speaking a syllable with the feature of breathy phonation after an onset consonant belongs to the lower register, while a syllable without this feature belongs to the upper register. Therefore, a Wú dialect can have as many as eight tones, due to the splitting of the four Middle Chinese tonal categories, *píng*, *shǎng*, *qù* and *rù*, into upper and lower registers. However, unlike many other Wú dialects, a remarkable characteristic of the tonal system in the Liàntáng subgroup is that the *yīnshǎng* tone also splits into two subtypes, a split that is conditioned by whether or not a syllable has an aspirated initial stop. Therefore, the maximum possible number of tones in the Liàntáng group is nine. The tonal system of the Liàntáng dialect is given in Table 4.1.

Table 4.1: The tonal systems of the Liàntáng dialect

	The Upper (<i>Yīn</i>) Category					The Lower (<i>Yáng</i>) Category			
	<i>Píng</i>	<i>Shǎng</i> I	<i>Shǎng</i> II	<i>Qù</i>	<i>Rù</i>	<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
Liàntáng	53	412	44	35	<u>55</u>	31	22	13	<u>12</u>

The difference between *yīnshǎng* I and *yīnshǎng* II is that *yīnshǎng* II syllables have aspirated stop initials, and these tones are commonly referred to as *aspirated tones*, while the remaining ordinary *yīnshǎng* syllables have unaspirated stop initials, belong to the *yīnshǎng* I tone, and are referred to as *unaspirated tones*.

4.2 Where the influence of aspirated stops on tones is concerned, several related questions are raised: In the domain of tonal articulation, how do aspirated initials subdivide tonal categories? Why are the tone values of aspirated tones significantly lower than those of the corresponding unaspirated tones, while the opposite situation also exists in fewer dialects? Is it possible that aspirated tones belong to the corresponding lower register tones? What is the development of the aspirated tones?

The primary physical correlation of what has been labelled “tone” is the pitch or fundamental frequency (F0) of vibration of the vocal cords. The F0 of voice is basically determined by two partially independent factors: (a) the state of the vocal cords, and (b) the aerodynamic forces (air flow) driving the vocal cords (van den Berg 1958, Ishizaka & Flanagan 1972). Under the same circumstance, it is believed that after the release of a voiceless aspirated consonant, the rate of air flow is lower than that after release of a voiceless unaspirated consonant (Shí 1998). The vocal cords do not have to be closely adducted for the lower rate of air flow to cause lowered pitch. We believe that voiceless

aspirated consonants may trigger a lower pitch on the following vowels at the first step in some dialects. The Sōnglíng 松陵 dialect of Wújiāng 吳江 County, a neighbouring county of Liàntáng, is one example of this type. See the tonal system of Sōnglíng dialect in Table 4.2 (Yè 1983):

Table 4.2: The tonal system of the Sōnglíng dialect

		<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
The <i>Yīn</i> Category	Unaspirated Tones	55	51	412	<u>55</u>
	Aspirated Tones	33	42	312	<u>33</u>
The <i>Yáng</i> Category		13	31	212	<u>22</u>

The syllables with aspirated initials form their own tonal series, in addition to the *yīn* and *yáng* categories. The tonal contours of aspirated and corresponding unaspirated tones are the same. However, the tone values of aspirated tones are lower than their corresponding unaspirated tone values. Many dialects with the phenomenon of aspirated tones belong to this type. In the next step, after aspirated tones have formed, they may follow their own development. Their tonal contours may come to differ from the corresponding unaspirated tones. It is also possible that, as a consequence of tonal development, the tone values of aspirated tones are higher than the corresponding unaspirated tones. In contrast to the Sōnglíng dialect, the phenomenon of the aspirated tones in Liàntáng is in the process of decline, and only occurs in *shǎng* tone syllables.

4.3 Recently, the existence of aspirated tones in Wú has generated a host of disputes in the linguistic literature on the subject in China (Yè 1983, Zhāng & Liú 1983, Shí 1992, 1998, Shen 1994). Some scholars have argued that syllables with aspirated initials do not have independent tones (Zhāng & Liú 1983, Shen 1994). “The so-called aspirated tones actually are the lower (*yáng*) register tones, which are the same as the tones for the syllables with voiced initials” (Shen 1994). Based on the data in the Liàntáng subgroup, however, it is my opinion that aspirated tones do exist in Wú. Three pieces of evidence support my argument.

First, the shape and register of aspirated tones in the Liàntáng subgroup are different from their corresponding lower (*Yáng*) register tones. In Table 4.3, there are two examples of the *shǎng* tone in the Liàntáng subgroup:

Table 4.3: Two examples of the Shǎng tone in the Liàntáng subgroup

		<i>Liàntáng dialect</i>	<i>Jīnzé dialect</i>
Upper register	Unaspirated Tone	412	412
	Aspirated Tone	44	35
Lower register		22	22

In Liàntáng, the aspirated tone belongs to the upper register, and its tone value is much higher than the corresponding low register tone (*yángshǎng*). In Jīnzé 金澤, not only are the registers of the aspirated tone and the low register tone different, but their shapes also do not share a common contour, as the aspirated tone is high rising while the low register tone is a low level tone. Therefore, it is impossible to group the aspirated tone and its corresponding low register tone into one tonal category.

Secondly, the above conclusions based on monosyllabic tones can be further confirmed in the environment of disyllabic tones. In disyllabic words, the sandhi rules of aspirated tones are the same as those of words in the corresponding unaspirated tones, but different from those of words in the corresponding low register tones. In the following, I list the tone sandhi rules of disyllabic words in the Liàntáng dialect. In each combination, the tone of the first syllable is one of the three types of *shǎng* tone (unaspirated tone, aspirated tone and low register tone):

Type Combination	Tone Sandhi	Example
3+1, 3+2, 3+3, 3+4	33-52	酒瓶 tsiu bin
3'+1, 3'+2, 3'+3, 3'+4	33-52	廠長 ts ^h ẽ tsẽ
4+1, 4+2, 4+3, 4+4	22-52	老虎 lo ɸu
3+5, 3+6	44-44	廣告 kuã ko
3'+5, 3'+6	44-44	草地 ts ^h ɔ di
4+5, 4+6	22-44	馬路 mo lu
3+7, 3+8	33-52	板壁 pẽ piʔ
3'+7, 3'+8	33-52	漂白 p ^h io baʔ
4+7, 4+8	22-52	道德 do tɔʔ

The evidence from the disyllabic tones listed above also reveals that it is impossible to group aspirated tones and their corresponding lower register tones into one tonal category.

Finally, the aspirated tone in the Liàntáng subgroup has its own tonal development, which is different from those of its corresponding unaspirated tone and low register tone. See the two tonal systems of the Liàntáng and Jīnzé dialects in Table 4.4:

Table 4.4: The tonal systems of the Liàntáng and Jīnzé dialects

	The <i>Yīn</i> Category					The <i>Yáng</i> Category			
	<i>Píng</i>	<i>Shǎng</i> I	<i>Shǎng</i> II	<i>Qù</i>	<i>Rù</i>	<i>Píng</i>	<i>Shǎng</i>	<i>Qù</i>	<i>Rù</i>
Liàntáng	53	412	44	35	<u>55</u>	31	22	13	<u>12</u>
Jīnzé	53	412	35		<u>55</u>	31	22	13	<u>12</u>

The only difference between the Liàntáng and Jīnzé is that the distinctions among *yīnshǎng* I, *yīnshǎng* II, the aspirated tone, and *yīnqù* is retained in Liàntáng, whereas in

Jīnzé the *yīnshǎng* II tone has merged into *yīnqù*. The following are examples of the *yīnshǎng* I, *yīnshǎng* II and *yīnqù* syllables in these two dialects:

	<i>Yīnshǎng</i> I	<i>Yīnshǎng</i> II	<i>Yīnqù</i>
Liàntáng	懂 toj ⁴¹²	捅 t ^h oŋ ⁴⁴	痛 t ^h oŋ ³⁵
Jīnzé	toj ⁴¹²		t ^h oŋ ³⁵

We can treat the tonal system of Jīnzé just as done for the development of Liàntáng tones, since the two dialects belong to the same subgroup and their geographic locations are very close. Comparing the two tonal systems, it is clear that the aspirated tone has undergone a tonal shift. The tone value of high level 44 has changed to high rising 35. However, the corresponding unaspirated tone and low register tone remain unchanged. This observation is further confirmed by the fact that the aspirated tone is an independent tone.

The above arguments and supporting evidence make it clear that the phenomenon of aspirated tones exists in some Wú dialects and the aspirated tone should be treated as an independent tone category.

4.4 The phenomenon of aspirated tones has been reported in the geographically adjacent area of Zhèjiāng 浙江, Jiāngsū 江蘇 and Shànghǎi: in Jīntán 金壇 (Simmons 1999), the southwest corner of Jiāngsū; to the northwest of Wújiāng, the south-western suburban area of Sūzhōu 蘇州, which belongs to modern-day Wúxiàn 吳縣 County (Ye 1983), and to its east, Kūnshān 崑山 County in Jiāngsū Province, Jīnshān 金山 and Liàntáng of the Shànghǎi area (Xǔ & Yóu 1984), Jiāxīng 嘉興, Píng hú 平湖, Jiāshàn 嘉善 and Hǎiyán 海鹽 counties in Zhèjiāng Province (Xǔ & Yóu 1984, Fù et al. 1985). Table 4.5 shows us the tonal systems of the (upper register) category of some dialects in the boundary area of Zhèjiāng, Jiāngsū and Shànghǎi.

In Table 4.5, *yīnshǎng* I shows the unaspirated tone, while *yīnshǎng* II shows the aspirated tone. Four noteworthy features of the phenomenon of aspirated tones need to be mentioned with regard to Table 4.5:

1. It is clear that the phenomenon of aspirated tones has not developed in a consistent manner. In the Sōnglíng dialect, the phenomenon has fully developed. Each of the four upper register tones, *yīnpíng*, *yīnshǎng*, *yīnqù* and *yīnrù*, is subdivided into two tonal categories conditioned by aspiration in initial stops. Whereas in the other dialects, this tonal effect only occurs in one Middle Chinese (MC) tonal category. Comparatively speaking, this tonal effect more likely occurs in the *shǎng*, *qù* and *rù* tones, and occurs less often in the *píng* tone.

2. As for the tone values of unaspirated and aspirated tones, it is the tone value of unaspirated tones that coincides with the tone values of their corresponding tones in other dialects, while the same phenomenon does not occur with aspirated tones. This means that the subdivision of tones is caused by aspirated consonants, not by unaspirated consonants. This argument is consistent with the same phenomenon that occurs in Gān dialects and some Kam-Tai languages (Ho 1989).
3. The aspirated tone of the *yīnshǎng* category has its own tonal development. In some dialects it has merged into the *yīnqù* tone, but the unaspirated tone of the *yīnshǎng* category is independently retained. This evidence also supports the finding that there are independent aspirated tones in Wú.
4. Based on the tone value of the *yīnshǎng* tone, the above dialects can be divided into two groups. Dialects with the tone value 512 for the unaspirated *yīnshǎng* tone, regardless of the phenomenon of the aspirated tone, belong to Group I. Those with a high level 44 as the tone value of the unaspirated *yīnshǎng* tone belong to Group II. This classification is identical with the administrative divisions from the Northern Sòng to the Yuán time. The area of the Group I belongs to the ancient Sūzhōu prefecture, while the area of the Group II belongs to the ancient Jiāxíng prefecture. This classification is further confirmed by the independence of the Liàntáng subgroup from the Sōngjiāng subgroup.

Table 4.5: The tonal systems of some dialects in the boundary area of Zhèjiāng, Jiāngsū and Shànghǎi

	<i>Píng</i>		<i>Shǎng</i>		<i>Qù</i>		<i>Rù</i>	
	I	II	I	II	I	II	I	II
Jiāxīng 嘉興	53		44	324	35		<u>55</u>	
Jiāshàn 嘉善	53		44		35		<u>55</u>	
Píng hú 平湖	53		44		35		<u>55</u>	
Hǎi yán 海鹽	53		44		35		<u>55</u>	<u>33</u>
Sōng jiāng 松江	53		44		35		<u>55</u>	
Jīn tán 金壇	435 or 35		53	33	445 or 35		<u>45</u>	<u>33</u>
Sōng líng 松陵	55	33	51	42	412	312	<u>55</u>	<u>33</u>
Lí lí 黎里	55		51	34	412	313	<u>55</u>	<u>33</u>
Zhèn zé 震澤	55	33	51		412	312	<u>55</u>	<u>33</u>
Xīn tǎ 辛塔	53		51		35		<u>55</u>	<u>33</u>
Chén mù 陳墓	53		51		412		<u>55</u>	<u>33</u>
Liàn táng 練塘	53		412	44	35		<u>55</u>	
Jīn zé 金澤	53		412		35		<u>55</u>	

5. The influence of pre-glottalized stops on tones

Pre-glottalized stops are special initials that occur in Southern Chinese (Wú, Mǐn and Yuè dialects), Kam-Tai languages, Vietnamese and some other related languages in Southeast Asia. For the most part, there are two pre-glottalized stops in these languages: bilabial $\text{ʔ}b$ -, and alveolar $\text{ʔ}d$ -. A third pre-glottalized stop $\text{ʔ}j$ - ($\text{ʔ}ɿ$ -) only occurs in Puyi, a Tai language, and in the dialects in the Shànghǎi area. In this section, I will discuss two issues regarding pre-glottalized stops in the dialects of the Shànghǎi area: their nature, distribution, and development.

5.1 The nature and distribution of pre-glottalized stops

The term “pre-glottalized stop” first appeared in Professor Fang-Kuei Li’s article “The hypothesis of a pre-glottalized series of consonants in primitive Tai,” published in the *Bulletin of the Institute of History and Philology Academia Sinica* (Vol. 11, 1943). Later on, the term “voiced implosive” was widely used to refer the same type of consonants in Southeast Asian languages by some scholars (Yóu 1984, Chén 1986, Chén 1988, 1989, Ladefoged 1993). Considering the relationship between the consonant and tones in Southeast Asian languages, however, it is my opinion that the term “pre-glottalized stop” is better in reference to this type of consonant. Glottalization is an important feature of this type of stop, as it influences the development of tones in the same way as do the voiceless unaspirated stops in Wú and some other southeast Chinese dialects. Taking the dialects in the Shànghǎi area as an example, the relationship between types of consonants and tones is shown Table 5.1:

Table 5.1: The relationship between types of consonants and tones

<i>Upper Register Tones</i>	<i>Lower Register Tones</i>
(1) voiceless consonants: $p, p^h, t, t^h, k, k^h, ts, ts^h, te, te^h, \phi, f, s, \epsilon, h...$	(4) voiceless consonants followed by vowels with breathy phonation: $p\acute{h}, t\acute{h}, k\acute{h}, ts\acute{h}, te\acute{h}, \phi\acute{h}, f\acute{h}, s\acute{h}, \epsilon\acute{h}, h\acute{h}...$
(2) pre-glottalized stops: $\text{ʔ}b, \text{ʔ}d, \text{ʔ}j$.	
(3) nasals and laterals with glottal stricture ʔ as an onset: $\text{ʔ}m, \text{ʔ}n, \text{ʔ}\eta, \text{ʔ}l...$	(5) nasals and laterals followed by vowels with breathy phonation: $m\acute{h}, n\acute{h}, \eta\acute{h}, l\acute{h}...$

It is clear that consonants of types (1), (2) and (3) have the same influence on the tone of the syllable, which distinguishes them from the consonants of types (4) and (5). Consonants of types (2) and (3) share the same feature of glottal stricture. Morphemes with initials having this characteristic always have tones of upper ($y\bar{i}n$) register. This seems to suggest that the pre-glottalized element influences the tone register of the syllable.

In the dialects of the Shànghǎi area, pre-glottalized stops occur only in the Sōngjiāng subgroup and the “older” Urban subgroup. There are only two kinds of this type: bilabial $\text{ʔ}b\text{-}$, and alveolar $\text{ʔ}d\text{-}$ in most dialects of the Sōngjiāng subgroup. However, in the dialects of Nánhuì 南匯, Fèngxián 奉賢 and Shànghǎi counties, there are three pre-glottalized stops. In addition to the bilabial $\text{ʔ}b\text{-}$ and alveolar $\text{ʔ}d\text{-}$, the third is a palatal stop $\text{ʔ}j\text{-}$. The following are some examples of these three pre-glottalized stops in the Sōngjiāng subgroup and the “older” Urban subgroup compared with the other three groups:

	Sōngjiāng	Nánhuì	“Older”	Jiāding	Chóngmíng	Liàntáng
飽	$\text{ʔ}b\text{ɔ}^3$	$\text{ʔ}b\text{ɔ}^3$	$\text{ʔ}b\text{ɔ}^3$	$\text{p}\text{ɔ}^5$	$\text{p}\text{ɔ}^3$	$\text{p}\text{ɔ}^3$
到	$\text{ʔ}d\text{ɔ}^5$	$\text{ʔ}d\text{ɔ}^5$	$\text{ʔ}d\text{ɔ}^5$	$\text{t}\text{ɔ}^5$	$\text{t}\text{ɔ}^5$	$\text{t}\text{ɔ}^5$
叫	$\text{t}\text{ɛ}\text{ɔ}^5$	$\text{ʔ}j\text{ɔ}^5$	$\text{t}\text{ɛ}\text{ɔ}^5$	$\text{t}\text{ɛ}\text{ɔ}^5$	$\text{t}\text{ɛ}\text{ɔ}^5$	$\text{t}\text{ɛ}\text{ɔ}^5$
幫	$\text{ʔ}b\text{ã}^1$	$\text{ʔ}b\text{ã}^1$	$\text{ʔ}b\text{ã}^1$	$\text{p}\text{ã}^1$	$\text{p}\text{ã}^1$	$\text{p}\text{ã}^1$
檔	$\text{ʔ}d\text{ã}^3$	$\text{ʔ}d\text{ã}^3$	$\text{ʔ}d\text{ã}^3$	$\text{t}\text{ã}^3$	$\text{t}\text{ã}^3$	$\text{t}\text{ã}^3$
薑	$\text{t}\text{ɛ}\text{ĩ}\text{ã}^1$	$\text{ʔ}j\text{ĩ}\text{ã}^1$	$\text{t}\text{ɛ}\text{ĩ}\text{ã}^1$	$\text{t}\text{ɛ}\text{ĩ}\text{ã}^1$	$\text{t}\text{ɛ}\text{ĩ}\text{ã}^1$	$\text{t}\text{ɛ}\text{ĩ}\text{ã}^1$
八	$\text{ʔ}b\text{æ}\text{ʔ}^7$	$\text{ʔ}b\text{æ}\text{ʔ}^7$	$\text{ʔ}b\text{æ}\text{ʔ}^7$	$\text{p}\text{æ}\text{ʔ}^7$	$\text{p}\text{æ}\text{ʔ}^7$	$\text{p}\text{æ}\text{ʔ}^7$
搭	$\text{ʔ}d\text{æ}\text{ʔ}^7$	$\text{ʔ}d\text{æ}\text{ʔ}^7$	$\text{ʔ}d\text{æ}\text{ʔ}^7$	$\text{t}\text{æ}\text{ʔ}^7$	$\text{t}\text{æ}\text{ʔ}^7$	$\text{t}\text{æ}\text{ʔ}^7$
腳	$\text{t}\text{ɛ}\text{ĩ}\text{æ}\text{ʔ}^7$	$\text{ʔ}j\text{ĩ}\text{æ}\text{ʔ}^7$	$\text{t}\text{ɛ}\text{ĩ}\text{æ}\text{ʔ}^7$	$\text{t}\text{ɛ}\text{ĩ}\text{æ}\text{ʔ}^7$	$\text{t}\text{ɛ}\text{ĩ}\text{æ}\text{ʔ}^7$	$\text{t}\text{ɛ}\text{ĩ}\text{æ}\text{ʔ}^7$

Articulatory descriptions of pre-glottalized stops have been provided in previous studies (Chao 1935, Haudricourt 1959, Ladefoged 1993). However, recent observation of pre-glottalized stops in Southeast Asian languages, and in the dialects of the Shànghǎi area, allows further observations to be made regarding their articulation. In the production of pre-glottalized stops, an articulatory closure in the mouth is formed first. Following, the glottis has a downward movement. This movement produces glottal stricture and makes the air pressure in the oral tract lower than that outside. When the closure in the mouth comes apart, a small amount of air is sucked into the mouth. Meanwhile, the vocal cords vibrate, and air from the lungs continues to flow through the glottis. In the production of three pre-glottalized stops, $\text{ʔ}b\text{-}$, $\text{ʔ}d\text{-}$ and $\text{ʔ}j\text{-}$, in the dialects of the Shànghǎi area, there is a comparatively strong nasal color with the stops, especially in the non-initial position. The following are some examples in the Nánhuì dialect:

十樣錦	$\text{z}\text{ə}\text{ʔ}^{12-22}$	$\text{ɦ}\text{ĩ}\text{ã}^{13-33}$	$\text{n}\text{ʔ}j\text{ĩ}\text{ã}\text{ŋ}^{44-35}$
月餅	$\text{n}\text{y}\text{œ}\text{ʔ}^{12-22}$	$\text{m}\text{ʔ}b\text{ĩ}\text{ŋ}^{44-13}$	
耳朵	$\text{n}\text{ĩ}^{13-23}$	$\text{n}\text{ʔ}d\text{u}^{44-31}$	

Probably the lower pressure in the mouth causes the soft palate to go down, and the nasal color is perceived during the production of the pre-glottalized stops.

As far as the three pre-glottalized stops, $\text{ʔ}b$ -, $\text{ʔ}d$ - and $\text{ʔ}j$ - in the dialects of the Shànghǎi are concerned, they share five articulatory features listed below:

- (1) glottal stricture
- (2) vibration of vocal cords
- (3) downward movement of the larynx
- (4) inward sucking of air
- (5) having comparatively strong nasal color

The glottal stricture varies in intensity depending on the dialect and is sometimes so weak that these stops are commonly identified with their voiceless counterparts p -, t - and c - ($tʰ$ -), respectively. Strongly pre-glottalized voiced stops occur in the dialects of Nánhuì, Fèngxián and Shànghǎi counties where the third type, $\text{ʔ}j$ -, is also preserved. In other dialects of the Sōngjiāng group and the “older” of the Urban subgroup, pre-glottalized stops $\text{ʔ}b$ - and $\text{ʔ}d$ - can be described as voiced stops preceded by a weak glottal or laryngeal stricture. The waveform and spectrogram of “報到” [$\text{ʔ}b\text{ɔ}^{35-44}$ $\text{ʔ}d\text{ɔ}^{35-44}$] are shown in Figure 5.1.

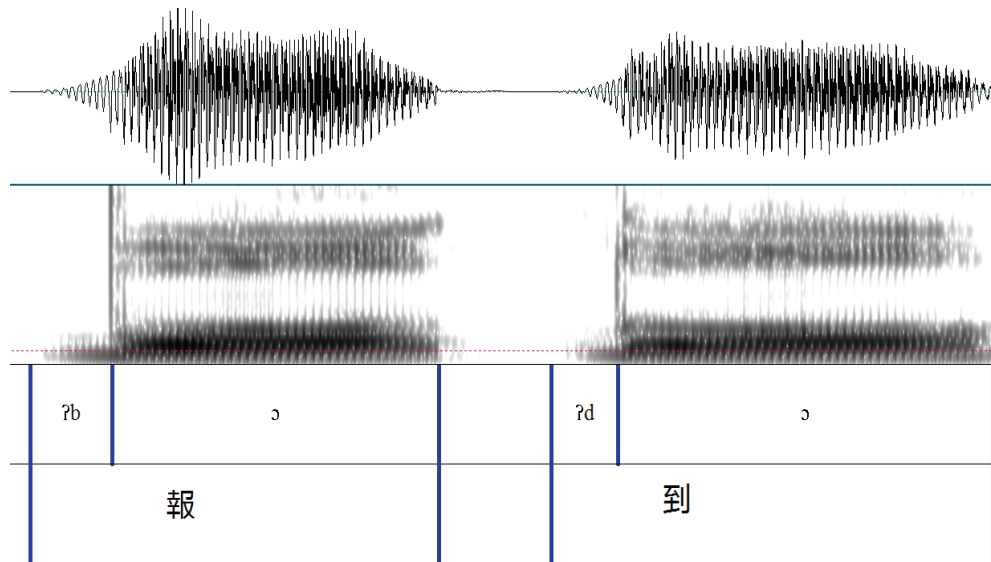


Figure 5.1: The waveform and spectrogram of words “報到” [$\text{ʔ}b\text{ɔ}^{35-44}$ $\text{ʔ}d\text{ɔ}^{35-44}$] in the Nánhuì dialect of the Sōngjiāng subgroup

In Figure 5.1, both the waveform and spectrogram show the vibration of vocal folds starts before stop release, therefore the VOT value of both stops is negative. They also

differ from voiced plosives in having increasingly strong vibrations of the vocal folds immediately before the release of the closure.

Viewed synchronically, pre-glottalized initials $\text{ʔ}b-$ and $\text{ʔ}d-$, like their counterparts $p-$ and $t-$ in other dialects of the Shànghǎi area, can occur before any finals. But the initial $\text{ʔ}j-$ has some limitations: it can only occur before finals with a vowel $-i$ or $-y$ as a glide and the main vowel of the final should be an open or back vowel. For instance, in Nánhuì, $\text{ʔ}j-$ and tɕ- are in complementary distribution. See Table 5.2:

Table 5.2: The distribution of $\text{ʔ}j-$ and tɕ- in the Nánhuì dialect

	-i	-y	-iɔ	-iɛ	-ia	-iø	-iʌ	-iã	-iǎ	-iŋ
$\text{ʔ}j-$			+		+		+	+	+	
tɕ-	+	+		+		+				+

	-iʌŋ	-yŋ	-ioŋ	-iaʔ	-iaɛʔ	-yœʔ	-iʌʔ	-iɪʔ	-ioʔ
$\text{ʔ}j-$	+		+	+	+	+	+		+
tɕ-		+						+	

Compared to the other two pre-glottalized stops $\text{ʔ}b-$ and $\text{ʔ}d-$, which are preserved in the large area of the Sōngjiāng subgroup with no limitation on the final, it seems that $\text{ʔ}j-$ is disappearing faster.

Viewed historically, $\text{ʔ}b-$ and $\text{ʔ}d-$ come from the *bāng* 幫 and *duān* 端 initials of Middle Chinese respectively, while $\text{ʔ}j-$ from the MC *jiàn* 見 initial. In some rural places of Nánhuì and Fèngxián counties, the $\text{ʔ}j-$ also comes from the MC *duān* initial. Therefore, in these circumstances, there are two pre-glottalized stops $\text{ʔ}d-$ and $\text{ʔ}j-$ which correspond to the *duān* initial of MC, but with a complementary distribution: $\text{ʔ}d-$ occurs in the position preceding *hóngyīn* 洪音, a type of final without $-i$ or $-y$ as a glide or main vowel, while $\text{ʔ}j-$ and tɕ- occur before *xìyīn* 細音, a type of final with $-i$ or $-y$ as a glide or main vowel. The following rule explains the distribution:

- the *duān* initial \rightarrow $\text{ʔ}d-$ / ____ [-high front vowel]
 \rightarrow $\text{ʔ}j-$ / ____ [+high front vowel] [+open, +back vowel]
 \rightarrow tɕ- / ____ [+high front vowel] [-open, -back vowel]

It is also expected that morphemes from the MC *duān* and *jiàn* initials may be homophones since their initials can be the same: $\text{ʔ}j-$. The following are some examples:

刁雕 = 交澆 $\text{ʔ}jio^{53}$
 鳥 = 僥 $\text{ʔ}jio^{44}$
 吊釣 = 叫 $\text{ʔ}jio^{35}$

5.2 As far as the development of the pre-glottalized stops is concerned, we need to do comparative research between the dialects of the Shànghǎi area and other Wú dialects that have the same pre-glottalized stops. In addition, it is also necessary to compare the same phenomenon in Kam-Tai languages, Vietnamese, and some related Southeast Asian languages, since pre-glottalized stops are a special areal feature in the area.

First, let us address the development of the pre-glottalized stops in the dialects of the Shànghǎi area. The pre-glottalized stops are preserved in the speech of older and most middle-aged people of the Sōngjiāng subgroup, and in the “older” of the Urban subgroup. However, in the younger generations of the Sōngjiāng subgroup and “majority” in the Urban subgroup, the three pre-glottalized stops, $\text{ʔ}b-$, $\text{ʔ}d-$, and $\text{ʔ}j-$ have been replaced by voiceless unaspirated stops $p-$, $t-$ and $tɕ-$ respectively. I take the Nánhui dialect of the Sōngjiāng subgroup as an example:

	飽	本	端	登	腳	經
Older and middle age	$\text{ʔ}b\text{ɔ}^3$	$\text{ʔ}b\text{əŋ}^3$	$\text{ʔ}d\text{ə}^1$	$\text{ʔ}d\text{əŋ}^1$	$\text{ʔ}j\text{ia}^7$	$\text{ʔ}j\text{iaŋ}^1$
Younger age	$p\text{ɔ}^3$	$p\text{əŋ}^3$	$t\text{ə}^1$	$t\text{əŋ}^1$	$tɕ\text{ia}^7$	$tɕ\text{ieŋ}^1$

This replacement is believed to be due to the influence of more prestigious dialects, such as the “majority” of the Urban subgroup and Mandarin.

Among Wú dialects, in addition to the dialects in the Shànghǎi area, some dialects of Southern Wú also have similar pre-glottalized stops. In working with some dialects in Southern Wú, we find that pre-glottalized stops there are somewhat different from those in the dialects of the Shànghǎi area. There seem to be four different types related to the evolution of pre-glottalized stops in the different Southern Wú dialects.

(1) In the Yǒngjiā 永嘉 dialect, initials coming from the MC *bāng* and *duān* initials are read $\text{ʔ}b-$ and $\text{ʔ}d-$ respectively. This situation is similar to that of the Sōngjiāng subgroup of the Shànghǎi area. The following are some examples (Zhèngzhāng 1988):

杯 $\text{ʔ}b\text{ai}^1$ 布 $\text{ʔ}b\text{u}^5$ 餅 $\text{ʔ}b\text{in}^3$ 對 $\text{ʔ}d\text{ai}^5$ 多 $\text{ʔ}d\text{ə}^1$ 懂 $\text{ʔ}d\text{on}^3$

(2) In the Jinyún 縉雲 dialect of Wú, the MC *bāng* and *duān* initials become $\text{ʔ}b-$, $m-$ and $\text{ʔ}d-$, $n-$ respectively, conditioned by whether or not they have a nasal coda in the finals:

保 $\text{ʔ}b\text{ə}^3$ 飽 $\text{ʔ}b\text{ɔ}^3$ 短 $\text{ʔ}d\text{e}^3$ 斗 $\text{ʔ}d\text{iu}^3$
 餅 $\text{ʔ}m\text{ɛiŋ}^3$ 冰 $\text{ʔ}m\text{ɛiŋ}^1$ 東 $\text{ʔ}n\text{om}^1$ 燈 $\text{ʔ}n\text{ɛiŋ}^1$

(3) However, in the Yǒngkāng 永康 dialect, a neighbouring county of Jinyún, all the initials from MC *bāng* and *duān* become $m-$ and $n-$ respectively. The following are some examples:

幫 ʔmaŋ ¹	本 ʔməŋ ³	東 ʔnoŋ ¹	釘 ʔniŋ ¹
扮 ʔma ⁵	綳 ʔmai ⁵	擔 ʔna ¹	打 ʔnai ³

(4) In the Wǔyì 武義 dialect, initials corresponding to MC *bāng* have developed into *m-* and *p-*, conditioned by whether or not the final had a nasal coda in MC. Initials corresponding to MC *duān* have developed into *n-* and *l-*, conditioned by whether or not the final had a nasal coda in MC:

變 ʔmie ⁵	冰 ʔmiŋ ¹	店 ʔnie ⁵	釘 ʔniŋ ¹
表 pie ³	拜 pia ⁵	釣 ʔlie ⁵	帶 ʔlia ⁵

We can summarize the development of the pre-glottalized stops ʔ*b-* and ʔ*d-* in Wú dialects as follows:

ʔ <i>b-</i> → <i>p-</i> (in northern Wú)	ʔ <i>d-</i> → <i>t-</i> (in northern Wú)
→ ʔ <i>m-</i> (in southern Wú)	→ ʔ <i>n-</i> (in southern Wú)
	→ ʔ <i>l-</i> (in southern Wú)

The development of ʔ*b-* → *p-*; ʔ*d-* → *t-* in northern Wú should be regarded as a result of influence from Standard Chinese, the prestige dialect of Mandarin. Geographically, the Mandarin group to the north is closer than the southern, and the influence of Mandarin on northern Wú is much stronger than in the south. The sound changes of ʔ*b-* → ʔ*m-*, ʔ*d-* → ʔ*n-*, or ʔ*l-*, not only occurs in southern Wú, but also in some Tai languages. The following are some examples from Tai languages (Li 1977):

Examples of Proto-Tai *ʔ*b-*

	Tone	Siamese	Lungchow	Po-ai
“shoulder”	B1	baa	baa	maa
“to cut, notch”	D1L	baak	baak	mak
“thin”	A1	baaŋ	baaŋ	mæŋ
“light, not heavy”	A1	bau	bau	mau

Examples of Proto-Tai *ʔ*d-*

	Tone	Siamese	Lungchow	Po-ai
“to scold”	B1	daa	daa	naa
“nose”	A1	daŋ	daŋ	naŋ
“to extinguish”	D1S	dap	dap	nap
“good”	A1	dii	dai	nii
“to get”	C1	dai	dai	nai

In the “phonetic notes to consonants” of *A Handbook of Comparative Tai*, Fang-Kuei Li states that both *b-* and *d-* in Siamese and Lungchow “are fully voiced, but are often accompanied by a laryngeal stricture or depression of the larynx so that they may be implosives in the speech of some speakers.” Obviously, the initials *b-* and *d-* in Siamese and Lungchow are late developments of the pre-glottalized stops *ʔb-* and *ʔd-*. The proto-Tai’s **ʔd-* is represented by *l-* in Shan and Black Tai (Li 1977). The following are some examples from Western Tai and Black Tai (Chén 1991):

	Western Tai	Black Tai
“scold”	ʔda ⁵	la ⁵
“to get”	ʔdai ³	lai ³
“nose”	ʔdaŋ ¹	lan ¹

The above discussion is strong evidence that Wú dialects and Tai languages have similar pre-glottalized stops *ʔb-* and *ʔd-*, and moreover, the development of pre-glottalized stops is similar in both.

In some Tai languages, similar to the initial *ʔj-* in some dialects of the Sōngjiāng subgroup, there is a third pre-glottalized stop *ʔɕ-*. The Pu-i (Bùyī 布依) dialect belongs to the Northern group of Tai languages (Li 1977) and has three kinds of pre-glottalized stops: *ʔb-*, *ʔd-* and *ʔɕ-*. However, there are few morphemes with *ʔɕ-* initial, and the places where such morphemes exist are also few. Based on the *Bùyīyǔ Diàochá Bàoɡào* “A Report on a Survey of the Buyi Dialect of Tai” (Yú et al. 1959), eight out of forty places investigated have a *ʔɕ-* initial. In most cases the Pu-i initial *ʔɕ-* corresponds to *ʔj-* (*ʔ-*). For instance:

	Pingtangxiliang	Anlongleju	Zhenfenglurong
“hungry”	ʔɕu ⁶	ʔiu ⁵	ʔie ⁵
“to stretch”	ʔɕit ⁷	ʔi:t ⁷	ʔi:t ⁷
“to step on”	ʔɕam ⁶	ʔjam ⁵	ʔjam ⁵
“to be at, stay”	ʔɕi ⁶	ʔjiu ⁵	ʔjiu ⁵
“prohibitive”	ʔɕi ⁵	ʔju ⁵	ʔjie ⁵
“to conceal”	ʔɕam ¹	ʔam ¹	ʔjam ¹
“Pu-i”	ʔɕai ⁴	ʔjoi ⁴	ʔjoi ⁴

The initial *ʔɕ-* is close to *ʔj-* aurally, but can be distinguished by trained ears. These two initials never occur in the same place in Pu-i. It is likely that the sound change *ʔɕ-* → *ʔj-* took place in Pu-i (Yú et al. 1959). If we look for sound correspondences between Pu-i’s *ʔɕ-* initial words and their cognate in other Tai languages, the same sound change *ʔɕ-* → *ʔj-* can be found:

	Pu-i	Siamese	Lungchow	Po-ai
“hungry”	ʔdʒi:k ⁷	ja:k ⁷	ja:k ⁷	ji:k ⁷
“to stretch”	ʔdʒat ⁷	jiat ⁷	ji:t ⁷	ji:t ⁷
“to stay”	ʔdʒap ⁷	jap ⁷	jap ⁷	jap ⁷
“prohibitive”	ʔdʒu: ⁵	ju: ⁵	ju: ⁵	ju: ⁵
“to step on”	ʔdʒie ⁵	ja: ⁵	ja: ⁵	ji: ⁵

Proto-Tai *ʔj- has merged in many Tai dialects/languages with proto-Tai *j-. However, the two can be distinguished by their influence on tones. The former influences the development of tones in a similar way as do *ʔ-, *ʔb- and *ʔd-. That is, words with *ʔj- as an initial always have the tone types of 1, 3, 5, and 7, while words with *j- have the tone types of 2, 4, 6, and 8.

The same sound change of the third pre-glottalized stop ʔj- → ʔ- (ʔj-) occurs in Wú dialects. The palatal ʔj- initial comes from the MC *jiàn* initial in the dialects of the Shànghǎi area. In southern Wú, however, initials coming from MC *jiàn* and *zhāng* 章 initials have palatalized, and some of them have subsequently become zero initial. For instance (Zhèngzhāng 1995):

	箕	圳	胗	周	叫	種	腫	煮
Yúnhé 雲和	i ¹	yə ⁵	yeŋ ¹	ieu ¹	iau ⁵			
Jǐngníng 景寧	i ¹		yəŋ ¹		iau ⁵			
Lìshuǐ 麗水	i ¹	yɛ ⁵	yeŋ ¹	iəu ¹	iɿ ⁵			
Jìnyún 縉雲	i ¹	yɛ ⁵		iu ¹	iɿ ⁵			i ³
Yǒngkāng 永康	i ¹	yə ⁵			iau ⁵			i ³
Suǐchāng 遂昌	i ¹	yɛ ⁵	yeŋ ¹	iu ¹	iɜ ⁵	ian ⁵	ian ³	ie ³
Sōngyáng 松陽	i ¹	yě ⁵	yeŋ ¹	iu ¹	iɔ ⁵	yoŋ ⁵	yoŋ ³	ie ³
Wǔyì 武義	i ¹		yeŋ ¹		ie ⁵	yoŋ ⁵	yoŋ ³	
Qúzhōu 衢州	i ¹		yoŋ ¹			yoŋ ⁵	yoŋ ³	
Lóngyóu 龍游	i ¹	yɛ ⁵	yoŋ ¹		iɔ ⁵	yoŋ ⁵	yoŋ ³	
Jiāngshān 江山	i ¹	yě ⁵	yeŋ ¹		iau ⁵	yoŋ ⁵	yoŋ ³	
Kāihuà 開化	i ¹	yě ⁵	yeŋ ¹		iə ⁵	yoŋ ⁵	yoŋ ³	ie ³

This situation is likely due to a sound change ʔj- → ʔ- (ʔj-) that occurred in Wú (Chén 1988, Zhèngzhāng 1995). The same kinds of pre-glottalized stops and the same parallel developments among southern Chinese, including Wú dialects, Tai languages, and Vietnamese (Chén 1990), can be regarded as an areal feature occurring in the languages of Southeast Asia.

Pre-glottalized stops ʔb and ʔd remain in many dialects in the Shànghǎi area, while the third one ʔj only occurs in the dialects of Nánhuì, Fèngxián, and Shànghǎi counties. As far as the pre-glottalized stops and their developments are concerned, the glottalization is an important feature of this type of consonant as it influences the development of

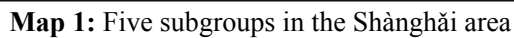
tones in the same way that $\text{ʔ}m$, $\text{ʔ}n$, $\text{ʔ}\eta$, $\text{ʔ}l$ and ʔ do. Words with these initials have always been associated with upper ($\text{y}\bar{m}$) register tones, even though they are true voiced stops.

6. Conclusion

Tones have been influenced in their development by the phonetic quality of the initial consonant of the syllable. It is necessary, nevertheless, to point out here certain features of the consonants which influenced the tones in different ways in the dialects of the Shànghǎi area:

1. consonants followed by vowels with breathy phonation
2. voiceless aspirated stops
3. pre-glottalized stops

The above comparative study of the tones of the modern dialects in the Shànghǎi area demonstrates that consonants followed by vowels with breathy phonation influence practically all the tones in all dialects of the Shànghǎi area. Other laryngeal features, such as pre-glottalization and aspiration, may also have influenced the development of tones, but they operated sporadically in some of the tones and only in some dialects in the Shànghǎi area.



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上海地區方言裡聲母和聲調之間的關係

陳忠敏

復旦大學

本文從五部分來討論上海地區方言裡聲母與聲調的關係。第一部分概述上海地區的分片。第二部分討論聲母與聲調的一般情況。第三部分討論清音濁流聲母的性質及它們對聲調的影響。第四部分討論送氣聲母分調現象。第五部分討論先喉塞音聲母的性質、分布，以及它們對聲調的影響。第六部分是總結。

關鍵詞：聲母，聲調，氣嗓音發聲態，送氣調，先喉塞音

南京方言知莊章三組歷時演變與年齡差異研究

顧 黔
南京大學

張志凌
東南大學

南京方言知、莊、章三組存在 [ts、ts^h、s] 與 [tʂ、tʂ^h、ʂ] 的對立，這在江蘇境內的江淮方言是一重要特徵。凡北京話讀 [ts、ts^h、s] 者南京話亦讀 [ts、ts^h、s]；然而北京話讀 [tʂ、tʂ^h、ʂ] 者南京話存在明顯的年齡差異，這是歷史上知、莊、章三組的對立尤其是莊組與知章組的對立在南京方言的遺存和反映。本文以少、青、中、老四個年齡段為調查對象，在中古知、莊、章三組選擇南京人常用口語詞（字）119 個，逐一調查、統計、分析其在四個年齡層的音讀分布情況，探討差異產生的原因及歷時演變的軌跡和方向。

關鍵詞：南京方言，[ts] 組，[tʂ] 組，歷時演變，年齡差異

1. 引言

《江蘇省志·方言志》(1998:14) 指出：古知、莊、章、精四組聲母字，即普通話 [tʂ、tʂ^h、ʂ] 和 [ts、ts^h、s] 聲母字，在南京分為 [tʂ] [ts] 兩類。本文認為，南京的 [tʂ] [ts] 兩類，其分合情況與普通話大不相同，而且在南京方言內部還存在顯著的年齡差異。劉丹青認為 (1996:47)：「江蘇境內的江淮話，除南京及郊縣外都沒有平舌音和翹舌音的區別，多數方言只有平舌聲母，如揚州、淮陰、鹽城、南通方言及轄縣（市）的江淮方言中『張、知、超、遲、沙、式』等字的聲母都念 [ts、ts^h、s]；連雲港方言只有翹舌聲母，『總、造、殘、次、所、四』等字的聲母都念 [tʂ、tʂ^h、ʂ]。安徽、湖北境內的多數江淮方言及南京方言有平舌翹舌之分。」因此，存在 [ts、ts^h、s] 與 [tʂ、tʂ^h、ʂ] 的對立，在江蘇境內的江淮方言中較為少見，是南京方言的重要特徵。

本文作者通過實地調查發現：凡普通話讀 [ts] 組的字在南京方言幾乎沒有變化，仍讀 [ts] 組，然而普通話讀 [tʂ] 組的字在南京話卻存在較大的分歧。有的人仍讀 [tʂ] 組，而有的人讀成 [ts] 組。這種差異在不同的年齡層次上體現得非常明

顯。劉丹青(1996:56)也提到：「在區分平翹舌這一點上，南京話更接近安徽的部分江淮方言，但這一特點也在消退。最老派有系統的翹舌平舌之分，……老派、中派的翹舌和平舌之分已不成系統，大量翹舌音讀如平舌音，新派的翹舌音只保留在舌尖後韻母 [ɰ][ɰʔ] 之前。」

今普通話的 $tʂ$ 、 $tʂʰ$ 、 $ʂ$ 來自中古的「知、莊、章」三組。此次調查我們在此三組選擇南京話常用口語詞，對不同年齡層次音讀分布情況作詳細的調查分析。

2. 調查對象和方法

此次調查對象共 52 人，有工人、公司職員、教師、大中小學生等。年齡最大的 87 歲，最小的 12 歲。年齡段劃分標準是：56 歲以上為老年組，36 歲至 55 歲中年組，16 歲至 35 歲青年組，12 歲至 15 歲少年組。發音人條件是：本人在南京出生，父母均為南京人。以家庭為基本單位，對祖孫三代的四個年齡層分別進行調查、分析。若條件不允許，如祖父母過世，則進行兩代調查。調查工作從 2006 年 6 月初開始，至 8 月底結束。

我們逐字統計、分析南京方言四個年齡層發音情況後，通過〈表 1〉至〈表 9〉，直觀體現了南京方言少、青、中、老四個年齡層次的語音分布差異。「少 13，青 13，中 16，老 10」表示少兒組 13 人，青年組 13 人，中年組 16 人，老年組 10 人。每個例字每個發音人讀一次，數字為該例字讀某音時出現的次數，百分比表示該例字在每一年齡組讀某音的概率。表中黑體字表示該字音讀比較特殊，將於下文詳細討論。百分比的具體演算法是：例字在該組讀某音的次數 $A \div$ 例字在該組出現的總次數 B 。例如，〈表 1〉中「豬」在少兒組中出現 [ts] 讀音共計 6 次，少兒組共 13 人，「豬」在該組讀成 [ts] 組的比率為 $6 \div 13 = 46\%$ 。

3. 南京話知、莊、章三組年齡差異調查分析

3.1 調查例字（119 個）：

- 知組——知母：豬、竹、哲、展、桌、追、摘、張、長_生~、中
徹母：徹、拆
澄母：茶、住、除、陳、陣、傳、丈、長_短~、直、遲、蟲、趙
- 莊組——莊母：窄、渣、扎、抓、債、莊、炸、找、睜、裝
初母：楚、吵、初、窗、差

崇母：助、拽、狀、柴、事、床

生母：殺、生、雙、數、沙、傻、曬、摔、刷、產、耍、山、師、甥、瘦

章組——章母：正、整、者、招、周、遮、紙、梘、蒸、證、拙、州、芝、織、照

昌母：唱、出、吹、醜、串、車、臭、喘、觸、尺、川

船母：神、蛇、船、繩、食、實、順

書母：鼠、輸、捨、燒、少、說、叔、水、傷、閃、手、深、身、室、收

禪母：踰、常、成、熟、時、樹、是、上、石、尙

3.2 音讀分布

以下為 119 個例字在南京話裡讀 [ts] 組的統計表。

〈表 1〉知組（24 個）

例字	豬	竹	哲	展	桌	追	摘	張	中	住	陣	丈
少 13	6 46%	4 31%	1 8%	3 23%	5 38%	2 15%	7 54%	5 38%	4 31%	4 31%	4 31%	3 23%
青 13	10 77%	11 85%	0 0%	10 77%	10 77%	9 69%	11 85%	10 77%	9 69%	10 77%	9 69%	8 62%
中 16	13 81%	13 81%	14 88%	14 88%	13 81%	13 81%	16 100%	13 81%	13 81%	15 94%	13 81%	13 81%
老 10	5 50%	6 60%	5 50%	6 60%	7 70%	6 60%	6 60%	6 60%	6 60%	6 60%	6 60%	6 60%
例字	長生～	直	趙	徹	拆	茶	除	陳	傳	遲	蟲	長～短
少 13	3 23%	0 0%	3 23%	2 15%	6 46%	3 23%	5 38%	4 31%	5 38%	0 0%	3 23%	5 38%
青 13	10 77%	0 0%	9 69%	0 0%	9 69%	9 69%	9 69%	9 69%	8 62%	0 0%	9 69%	10 77%
中 16	13 81%	1 6%	15 94%	13 81%	15 94%	14 88%	13 81%	13 81%	13 81%	2 13%	13 81%	13 81%
老 10	6 60%	0 0%	6 60%	7 70%	8 80%	6 60%	6 60%	5 50%	6 60%	2 20%	6 60%	6 60%

〈表2〉莊組（37個）

例字	窄	渣	扎	抓	債	莊	炸	找	睜	裝	助	拽	狀	楚	吵	初	窗	差	柴
少13	10 77%	6 46%	5 38%	5 38%	6 46%	4 31%	4 31%	3 23%	6 46%	3 23%	5 38%	4 31%	4 31%	3 23%	5 38%	8 62%	5 38%	5 38%	5 38%
青13	12 92%	12 92%	10 77%	9 69%	9 69%	8 62%	10 77%	11 85%	10 77%	8 62%	9 69%	10 77%	9 69%	11 85%	10 77%	12 92%	7 54%	10 77%	9 69%
中16	15 94%	13 81%	13 81%	13 81%	13 81%	13 81%	13 81%	14 88%	16 100%	13 81%	16 100%	13 81%	13 81%	13 81%	14 88%	16 100%	13 81%	14 88%	13 81%
老10	9 90%	6 60%	6 60%	6 60%	6 60%	6 60%	6 60%	6 60%	7 70%	6 60%	8 80%	6 60%	6 60%	8 80%	6 60%	7 70%	6 60%	6 60%	6 60%
例字	床	產	事	殺	生	雙	數	沙	傻	曬	摔	刷	耍	山	師	甥	帥	瘦	
少13	3 23%	5 38%	0 0%	4 31%	4 31%	3 23%	8 62%	4 31%	4 31%	5 38%	4 31%	4 31%	4 31%	3 23%	0 0%	5 38%	3 23%	6 46%	
青13	10 77%	9 69%	1 8%	9 69%	8 62%	9 69%	12 92%	8 62%	9 69%	10 77%	10 77%	9 69%	8 62%	9 69%	1 8%	9 69%	8 62%	12 92%	
中16	13 81%	13 81%	10 63%	13 81%	16 100%	13 81%	16 100%	13 81%	12 75%	13 81%	13 81%	13 81%	12 75%	13 81%	4 25%	15 94%	12 75%	16 100%	
老10	6 60%	5 50%	10 100%	6 60%	7 70%	6 60%	8 80%	6 60%	6 60%	6 60%	7 70%	6 60%	6 60%	6 60%	8 80%	6 60%	5 50%	8 80%	

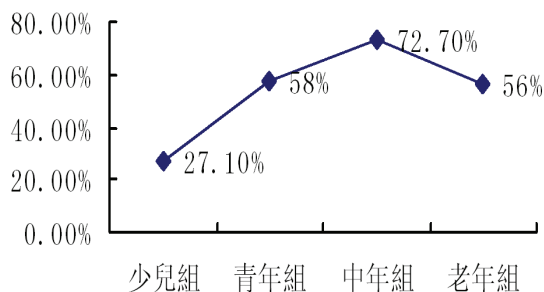
〈表3〉章組（58個）

例字	正	整	者	招	周	遮	紙	梔	蒸	證	拙	州	芝	織	照
少13	4 31%	4 31%	1 8%	4 31%	4 31%	1 8%	0 0%	4 31%	4 31%	4 31%	6 46%	5 38%	0 0%	0 0%	6 46%
青13	10 77%	9 69%	0 0%	8 62%	8 62%	0 0%	0 0%	4 31%	9 69%	9 69%	8 62%	8 62%	0 0%	0 0%	10 77%
中16	14 88%	13 81%	7 44%	13 81%	13 81%	7 44%	2 13%	9 56%	13 81%	13 81%	13 81%	13 81%	1 6%	1 6%	13 81%
老10	6 60%	5 50%	6 60%	6 60%	6 60%	4 40%	1 10%	3 30%	6 60%	6 60%	5 50%	6 60%	2 20%	1 10%	6 60%
例字	唱	出	吹	醜	串	車	臭	喘	觸	尺	船	成	踹	常	川
少13	3 23%	6 46%	4 31%	5 38%	3 23%	0 0%	2 15%	2 15%	5 38%	0 0%	3 23%	5 38%	4 31%	4 31%	3 23%
青13	10 77%	10 77%	9 69%	10 77%	8 62%	0 0%	7 54%	7 54%	8 62%	0 0%	9 69%	9 69%	8 62%	9 69%	9 69%
中16	13 81%	13 81%	13 81%	13 81%	14 88%	3 19%	13 81%	13 81%	15 94%	1 6%	13 81%	13 81%	14 88%	13 81%	13 81%
老10	7 70%	7 70%	7 70%	7 70%	6 60%	3 30%	6 60%	6 60%	8 80%	1 10%	6 60%	6 60%	6 60%	6 60%	6 60%

例字	神	蛇	繩	食	實	順	鼠	輸	捨	燒	少	說	叔	水	傷
少 13	3 23%	1 8%	3 23%	0 0%	0 0%	4 31%	5 38%	3 23%	0 0%	4 31%	3 23%	4 31%	1 8%	4 31%	4 31%
青 13	10 77%	0 0%	7 54%	0 0%	0 0%	8 62%	8 62%	9 69%	0 0%	9 69%	9 69%	9 69%	9 69%	9 69%	9 69%
中 16	13 81%	2 12%	13 81%	1 6%	1 6%	13 81%	13 81%	13 81%	6 38%	13 81%	13 81%	13 81%	12 75%	12 75%	13 81%
老 10	6 60%	3 30%	6 60%	1 10%	1 10%	6 60%	6 60%	6 60%	5 50%	6 60%	6 60%	6 60%	6 60%	6 60%	6 60%
例字	閃	手	深	身	室	收	熟	時	樹	是	上	石	尙		
少 13	5 38%	4 31%	2 15%	4 31%	0 0%	3 23%	5 38%	0 0%	3 23%	0 0%	3 23%	0 0%	3 23%		
青 13	9 69%	9 69%	7 54%	9 69%	0 0%	9 69%	10 77%	0 0%	10 77%	0 0%	8 62%	0 0%	9 69%		
中 16	13 81%	13 81%	13 81%	13 81%	1 6%	13 81%	13 81%	1 6%	13 81%	1 6%	13 81%	1 6%	12 75%		
老 10	6 60%	6 60%	6 60%	6 60%	1 10%	6 60%	7 70%	0 0%	6 60%	1 10%	6 60%	0 0%	6 60%		

3.3 差異分析

〈表 1〉至〈表 3〉逐一呈現所有例字在各年齡段讀 [ts] 組的次數和概率。在此基礎上，我們統計得出所有例字在各年齡段讀 [ts] 組的總概率。見〈圖 1〉：



〈圖 1〉[ts] 組分布概率

〈圖 1〉顯示隨著年齡的變化，ts 組的百分比並非簡單的上升或下落，而是呈現出不規則的倒 U 形。中年組最高，少兒組最低，而青年組和老年組居中，且大致相當。這說明，現在南京老年人較為平均地保留了 [ts] [tʂ] 兩類；中年組 [tʂ] 組很少，絕大多數是 [ts] 組；青年組較為平均地保留了 [ts] [tʂ] 兩類；少兒組 [tʂ]

組成爲主流。〈圖 1〉在共時層面上體現的差異性實則反映了歷史來源的差異。
〈表 4〉是 [ts] 組在「知、莊、章」三組來源共時層面上的分布情況。

〈表 4〉

來源	莊組	知組	章組
少	34.3%	27.9%	22.1%
青	70.1%	60.6%	49.3%
中	82.9%	78.4%	63.9%
老	65.1%	56.3%	50.0%

〈表 4〉數據顯示，來自莊組的字，在各年齡段選擇 [ts] 組的比率都是最高的。我們發現，正是由於歷史來源不同，字音存在巨大差異。由此，我們可以探尋知莊章三組的對立尤其是莊組與知章組的對立在南京方言的遺存和反映。類似的情況在其他方言也有反映，即使是北京話亦有這樣的殘跡，如莊組：阻、所、廁、搜、艘、森、岑、簪、澀、纂、瑟、測、側、色、齋、責、策、冊、縮等，今讀 [ts] 組，不讀 [tʂ] 組，這些都說明歷史上此三組尤其是莊組與知章組的對立。〈表 5〉所列爲極有代表性的字：

〈表 5〉

來源	莊組									知組		章組									
例字	窄	睜	助	初	生	數	瘦	事	師	直	遲	紙	是	織	時	芝	食	石	尺	實	室
少	10 77%	6 46%	5 38%	8 62%	4 31%	8 62%	6 46%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
青	12 92%	10 77%	9 69%	12 92%	8 62%	12 92%	12 92%	1 8%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
中	15 94%	16 100%	16 100%	16 100%	16 100%	16 100%	16 100%	10 63%	4 25%	1 6%	2 13%	2 13%	1 6%	1 6%	1 6%	1 6%	1 6%	1 6%	1 6%	1 6%	1 6%
老	9 90%	7 70%	8 80%	7 70%	7 70%	8 80%	8 80%	10 100%	8 80%	0 0%	2 20%	1 10%	1 10%	1 10%	0 0%	2 20%	1 10%	0 0%	1 10%	1 10%	1 10%

分析南京方言知、莊、章三組共時表現，可知南京方言知莊章三組內部分成 [ts]、[tʂ] 兩類：[ts] 類來自莊組，[tʂ] 類來自知組和章組。〈表 5〉「事、師」中年組和老年組百分比非常高。這是老南京話的特點，讀音是：[s] + [ɿ]，少兒組和青年組幾乎不存在這種讀法。除了表中所列這兩字外，「獅、士、柿」等情況與此

一致。由此可推斷，莊組字的 [ts] 類是不穩定的，由於受到漢民族共同語普通話的影響，一些莊組字改變了原來的讀音，脫離 [ts] 類，歸入 [tɕ] 類。這使得當前南京方言莊組字出現了不少 [ts]、[tɕ] 疊置現象。這一生動的語言事實，說明南京方言一直處在動態變化發展的過程中。

〈圖 1〉顯示，青年組和老年組音讀情況大致相當。但實際上，兩組的具體情況很不一樣，在某些字的讀音上存在很大分歧。詳見〈表 6〉：

〈表 6〉

例字	哲	者	遮	徹	車	蛇	捨	平均
少	1 8%	1 8%	1 8%	2 15%	0 0%	1 8%	0 0%	6.6%
青	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0%
中	14 88%	7 44%	7 44%	13 81%	3 19%	2 12%	6 38%	46.4%
老	5 50%	6 60%	4 40%	7 70%	3 30%	3 30%	5 50%	47.1%

〈表 6〉顯示，除了青年組和老年組差別明顯以外，少年組與中年組之間同樣存在差別。此外，[ts]、[tɕ] 兩類與韻母的組合關係上，青少年與中老年之間也存在差異，且有對應關係。

北京話這些字的聲韻組合只有一類：[tɕ] 組 + [ə]。而在南京方言，此次調查我們發現，存在三種聲韻組合形式。分別為：A. [tɕ] 組 + [ə]；B. [ts] 組 + [ə]；C. [ts] 組 + [ɛ]/[e]。詳細情況請見〈表 7〉至〈表 9〉：

〈表 7〉

年齡段	音讀	哲	者	遮	徹	車	蛇	捨	平均
少	[ts] 組 + [ə]	12 92%	12 92%	12 92%	11 85%	13 100%	12 92%	13 100%	93.4%
青		13 100%	13 100%	13 100%	13 100%	13 100%	13 100%	13 100%	100%
中		2 13%	9 56%	9 56%	3 19%	13 81%	14 88%	10 63%	53.6%
老		5 50%	4 40%	6 60%	3 30%	7 70%	7 70%	5 50%	52.9%

〈表 8〉

年齡段	音讀	哲	者	遮	徹	車	蛇	捨	平均
少	[ts] 組 + [ə]	1 8%	1 8%	1 8%	2 15%	0 0%	1 8%	0 0%	6.6%
青		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0%
中		13 81%	4 25%	7 44%	13 81%	2 13%	1 6%	4 25%	39.3%
老		3 30%	0 0%	1 10%	4 40%	0 0%	0 0%	0 0%	11.4%

〈表 9〉

年齡段	音讀	哲	者	遮	徹	車	蛇	捨	平均
少	[ts] 組 + [ɛ]/[e]	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0%
青		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0%
中		1 6%	3 19%	0 0%	0 0%	1 6%	1 6%	2 13%	7.1%
老		2 20%	6 60%	3 30%	3 30%	3 30%	3 30%	5 50%	35.7%

〈表7〉至〈表9〉可見：

A. [tʂ] 組 + [ə]

組合 A 青年人最高，達 100%；少兒為 93.4%；中老年的比率過半。可見組合 A 是主流。

B. [ts] 組 + [ə]

組合 B 中年組最高 39.3%；老年組次之，為 11.4%；少兒組 6.6%，僅有兩人偶爾念 [ts] 組；青年組最低 0%。

C. [ts] 組 + [ɛ]/[e]

組合 C 只出現在中老年組，且老年組最高，中年組次之。青少年組沒有這樣的讀法。

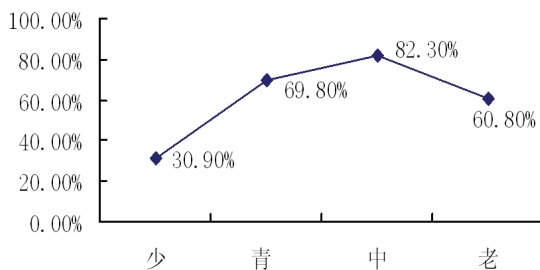
比較組合 B、C 我們發現，當聲母均為 [ts] 組時，中年組和老年組在韻母的選擇上出現了分歧。中年人傾向中性元音 [ə]，老年人傾向前元音 [ɛ]/[e]。凡選擇

組合 C 的，只出現在老年組年齡最長者中，依次為 87 歲、71 歲、66 歲、65 歲。所以我們推測，這類字的讀音演變軌跡是：

C → B → A

除表中所列之外，南京話這類字還有：奢、這等。

綜合以上分析，由於這些特殊的音讀會對語音系統的統計數據產生影響，因此我們將以上這些特殊字全部撤出（百分比統計總表裡標注的 29 個字），然後再按照少、青、中、老四個年齡段對南京話的「知、莊、章」三組讀音做一次統計，得出〈圖 2〉：



〈圖 2〉[ts] 組分布概率

此次調查分析知、莊、章三組在南京話不同年齡組的讀法之後，我們發現，聲母與 [ə]、[ɿ]、[ɛ]、[e]、[ɪ] 韻的配合關係為：當聲母是 [ts] 組時，韻母可以是 [ə]、[ɛ]、[e]、[ɪ]；聲母是 [tʂ] 組時，韻母只能是 [ə]、[ɿ]。

4. 結論

操南京方言的老年人，中古知、莊、章三組字 [ts] [tʂ] 兩類是共存、疊置的，只是與北京話相比 [ts] 類稍多於 [tʂ] 類。到了中年階段，大量 [tʂ] 類字歸入 [ts] 類（不包括韻母是舌尖後 [ɿ] 的字），使得中年組 [ts] 佔了主導地位。青少年由於受普通話的影響，並未沿襲中年人在發音上的轉變，而是又將許多字歸入 [tʂ] 類，因此 [ts] [tʂ] 兩類的比率又恢復了基本平衡。少兒組 [ts] 類出現的機率最小。

通過調查、分析我們發現：目前，南京話知莊章三組既有古音的遺存，又由於語言接觸受漢民族共同語普通話的影響，不少語音特徵發生了變化。我們認為南京話知、莊、章三組的讀音從老年到中年的轉變是南京方言自身發展的結果；而中年到青少年的變化是近幾十年來普通話教育的結果。

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A Study of Diachronic Evolution and Age Variation in the *Zhī*, *Zhuāng* and *Zhāng* Initial Groups in the Nánjīng Dialect

Gù Qián

Nanjing University

Zhāng Zhílíng

Southeast University

The opposition of the initial sets [ts, tsh, s] and [tʂ, tʂh, ʂ] in the three *Qièyùn* 切韻 groups of *Zhī* 知, *Zhuāng* 莊, and *Zhāng* 章 is a major characteristic of the Nánjīng dialect within the Jiāng-Huái branch of Mandarin in Jiāngsū. All syllables whose consonant initials are pronounced as dental sibilants [ts, tsh, s] in the Běijīng dialect are also dental sibilants in the Nánjīng dialect, while those pronounced as retroflex affricates and fricatives [tʂ, tʂh, ʂ] in Běijīng are found to have a distribution between the dentals and retroflex that varies by speaker age in Nánjīng, and which still partially reflects the opposition of the *Zhī*, *Zhuāng*, and *Zhāng* groups—especially between the *Zhuāng* group on one hand and *Zhī*-*Zhāng* on the other. This paper chooses 119 common colloquial syllables or words of the three groups and statistically analyzes their pronunciation differences in four age groups: teenage, young adult, middle-aged, and older. The goal is to see what the age variation reveals about the path and direction of the evolution of the contrast between initial types.

Key words: Nánjīng dialect, dental-alveolars, retroflexes, diachronic evolution, age variation

江西吉安縣雲樓方言同音字彙*

昌梅香

陝西師範大學

本文描寫江西吉安雲樓方言音系，歸納其音韻特點，並列出同音字彙。

關鍵詞：江西吉安雲樓方言，音系，同音字彙

1. 概說

吉安縣位於江西省中部，地跨贛江兩岸，版圖呈「人」字形，面積 2770 平方公里，人們習慣把吉安縣分為東路片、北路片和西路片三大片。東面及東南面與吉水、興國縣相鄰；西北及北面分別與安福縣、峽江縣、新幹縣交界；西面、西南面分別與蓮花縣、泰和縣相連。縣城敦厚鎮位於「人」字形的中部偏西，與吉安市相距約 12 公里。全縣下設 19 個鄉，10 個鎮，共有 2892 個自然村，人口約 55 萬。吉安縣內通行的方言屬贛方言，但各片方言差異較大，尤其東路片的方言不能被其他各片聽懂。

雲樓鄉，又名新安鄉，位於吉安縣東南角的東路片。現在該鄉在行政區劃上歸屬吉安市青原區富田鄉，在本論文中，仍依舊的行政區劃。雲樓鄉面積 64 平方公里，人口約 1 萬，分設 10 個村委會，有 36 個自然村，全鄉人都講雲樓方言，也叫「打新安聲」。本文記錄了雲樓鄉高溪村的雲樓方言，也就是作者的母語。兩位發音合作人是作者的父母親：第一合作人，昌鐘澄，男，1945 年生，雲樓鄉高溪村人，大學文化程度，退休職工，主要講雲樓話；第二合作人，劉順鳳，女，1949 年生，雲樓鄉楊渡村人，初中文化程度，退休工人，主要講雲樓話。

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2. 雲樓方言聲韻調

2.1 聲母 19 個，包括零聲母在內

p 波補半筆	p ^h 被扶盤白	m 罵門網蜜	f 花飯放發
t 對豬漲~水立	t ^h 台道天讀	n 男藝人鴨	l 爐利榮綠
ts 子債中摘	ts ^h 才炒昌賊		s 師算成舌
tɕ 煮醉歸腳	tɕ ^h 奇住賤局		ɕ 西許象食
k 課家敢穀	k ^h 可敲困客	ŋ 牙藕岸惡~鬼	h 糠厚覓學
∅ 衣懷~肚：懷孕遠屋			

說明：

- (1) n 與細音相拼，音值爲 ŋ。
- (2) t、t^h 在細音前音值接近 ʈ、ʈ^h。
- (3) k、k^h 發音略靠前，接近 c、c^h，但未到 c、c^h 的發音部位。

2.2 韻母 42 個，包括自成音節的 ɱ、ŋ 在內

a 蛇馬花白	i 閉雞尾食	u 肚姑所粥	y 女豬醉出
ɛ 法答納舌	ia 爹夜寫吃	ua 瓜誇蛙話說~	
	iɛ 熱克滅鴨	uɛ 滑國襪挖	ye 歸跪貴鬼
	io 茄靴削腳	uo 餓波果學	
ə 鋸二紙字			
ø 活闊脫說小~			yø 雪月決缺
ai 大街帥戒		uai 妹開來海	
		uei 梅衰圍骨	
	iu 秋手舊肉		
au 包保交敲	iau 表貓尿喉		
eu 頭瘦走豆			
an 南喊碳奸	ian 邊田鹽根	uan 關管飯安	yan 軟縣淺沿
ɛn 門閃增鄧		uɛn 問文	
in 人今慶景		un 昏滾唇穩	yn 運軍傾永
ẽ 心針身冰			
aŋ 彭冷正硬	iaŋ 餅命聽姓	uaŋ 梗菜~橫~豎	
ɔŋ 忙浪江講	ioŋ 香亮漲~水羊	uoŋ 光礦黃枉	
uŋ 紅宋風動			yŋ 濃融共用
ɱ 姆~媽：媽媽			
ŋ 五蜈魚唔否定詞			

說明：

- (1) ə 韻母與 k、k^h 相拼時，實際音值接近 u；在與 ts、ts^h、s 相拼時，年輕人有音位變體 ɿ，但與 ə 並不構成對立，在此歸併為 ə 韻母。
- (2) 當 uo 與 f 聲母相拼時，u 介音不明顯。
- (3) ian 的實際音值為 iɛn。
- (4) uɛn 在構成零聲母音節時，實際音值為 vɛn。

2.3 單字調 5 個

陰平 55 高天北木

上聲 51 有水准孔

陰去 33 蓋判放送

陽平 213 圖來田窮

陽去 324 道舊共白

說明：

- (1) 除單字調外，另有兩個變調，調值分別為 24 和 51。51 調值與上聲的本調相混。

3. 音韻特點

3.1 聲母特點

- (1) 古全濁聲母今讀塞音、塞擦音時，絕大部分字今讀送氣清音。只有少數字讀不送氣塞音、塞擦音，如：辦 pian⁵¹、站車~tsan³²⁴、菌 tɕyn⁵¹ 等。
- (2) 有部分古非組字保留重唇音，如：孵 p^hau³²⁴、浮 p^hau²¹³、扶 p^hu²¹³、痲 p^hi⁵⁵、輔 p^hu⁵¹、尾 mi²⁴、晚 muan²⁴、蚊 men²⁴、網 mɔŋ⁵¹ 等。
- (3) 部分古來母三等字讀 t 聲母，如：梨 ti²¹³、鯉 ti²⁴、裏 ti⁵¹、狸 ti²¹³、流 tiu²¹³、鑷 tien²¹³、淋 tɛ²¹³、鱗 tɛ²¹³、壠 tyŋ⁵¹、兩 tion³²⁴、量 tion²¹³、獵追趕 tie³²⁴、力 ti³²⁴、立 ti³²⁴、栗 ti⁵⁵、笠 ti⁵⁵、六 tiu³²⁴ 等。
- (4) 在今開口呼、合口呼韻母前，古精組字讀 ts、ts^h、s 聲母，與知莊章組字聲母合流，例如：「脆墜抄鏟」聲母都是 ts^h。知章組字在遇攝合口三等、流攝開口三等韻攝中，聲母為 tɕ、tɕ^h、ɕ，與精組字合流，但與莊組字相區別，例如：「囚綢仇」讀 tɕ^hiu²¹³，「愁」讀 ts^heu²¹³。
- (5) 古知組字有少部分聲母讀 t，如：爹 tia⁵⁵、豬 ty⁵⁵、長~大 tion⁵¹、張~飯：盛飯 tion⁵⁵、漲~水 tion⁵¹、脹 tion³³、著~衣服：穿衣服 tio⁵⁵、竹 tiu⁵⁵、築~杖桿：拄拐杖 ty³³。
- (6) 古日母字，聲母讀 n，少數文讀 l，如：二 ni³²⁴、日 ni⁵⁵、肉 niu⁵⁵、人 nin²¹³；柔 liu²¹³、入 li⁵⁵。

- (7) 疑母字在今齊齒呼韻母前，聲母爲 *n*；在今開口呼韻母前，聲母爲 *ŋ*；在今合口呼、撮口呼韻母前多數讀零聲母。如：「藝蟻牛研銀額」等字聲母爲 *n*；「餓牙崖熬藕硬昂嶽」等字聲母爲 *ŋ*；「吳遇危元月玉」等字聲母爲零聲母。
- (8) 見組二等字聲母爲 *k*、*kʰ*、*h*，如：家 *ka*⁵⁵、械 *kai*³³、敲 *kʰau*⁵⁵、減 *kan*⁵¹、閑 *han*²¹³、江 *koŋ*⁵⁵。
- (9) 個別古曉母字讀 *kʰ* 聲母，例如：貨 *kʰuo*³³、蒿 *kʰau*⁵⁵、葦 *kʰun*⁵⁵、況 *kʰuaŋ*³³。
- (10) 匣母合口字，聲母文讀爲 *f*，白讀爲零聲母，例如：懷 *fuai*²¹³/*uai*²¹³、話 *fa*³²⁴/*ua*³²⁴、會 *fui*³²⁴/*ui*³²⁴、換 *fuan*³²⁴/*uan*³²⁴、還 *fuan*²¹³/*uan*²¹³、黃 *fɔŋ*²¹³/*uoŋ*²¹³、橫 *fɛn*²¹³/*uaŋ*²¹³。
- (11) 古影母字，聲母與今開口呼、合口呼韻母相拼時大部分爲 *ŋ*，其他時候爲零聲母。如：「愛矮暗安」等字聲母爲 *ŋ*，「煙冤」等字聲母爲零聲母。

3.2 韻母特點

- (1) 雲樓方言中有 *i*、*u*、*y*、*a*、*ɛ*、*ə*、*ø* 七個單元音韻母，其餘均爲複元音韻母或鼻音韻母，並且還有一個鼻化韻母。沒有塞音韻尾韻母。
- (2) 止攝精照組字韻母爲 *ə*，年輕人有音位變體 *ɿ*，但兩者並不構成對立。因此雲樓方言中沒有設 *ɿ* 音位。如：瓷 *tʰə*²¹³、自 *tʰə*³²⁴、支 *tə*⁵⁵、子 *tə*⁵¹、四 *sə*³³ 等。
- (3) 果攝歌韻中，少數字讀 *ai*，如：哪 *nai*³²⁴、大 *tʰai*³²⁴、個 *kai*³³。
- (4) 假攝開口三等字，韻母的主要元音爲 *a*，如：寫 *cia*⁵¹、者 *tsa*⁵¹、惹 *nia*⁵¹、也 *ia*³²⁴。
- (5) 遇攝三等的精、知、章組字，韻母讀音相同，與莊組字韻母有別，如：「徐 *ɛy*²¹³、除 *tɕhy*²¹³、書 *ɛy*⁵」與「初 *tʰu*⁵⁵、梳 *su*⁵⁵、數 *su*³³」；流攝三等的精、知、章組字，韻母讀音相同，與莊組字韻母有別，如：「酒 *teiu*⁵¹、醜 *tɕhiu*⁵¹、手 *ciu*⁵¹」與「愁 *tɕheu*²¹³、皺 *tɕeu*³³、瘦 *seu*³³」。
- (6) 蟹攝牙喉音開口一等字與二等字韻母有別。如「該開海害愛」等字韻母爲 *uai*；「界揩鞋械矮」等字韻母爲 *ai*。
- (7) 流攝、臻攝、曾攝、梗攝一、二等牙喉音字，韻母有 *i* 介音。如：狗 *kiau*⁵¹、根 *kian*⁵⁵、刻 *kʰie*⁵⁵、庚 *kian*⁵⁵。
- (8) 咸、山兩攝牙喉音一等字與二等字韻母有別。一等字讀 *uan* 韻母，如「感含暗甘敢幹看旱寒漢安」；二等字讀 *an* 韻母，如「尷減陷陷晏艱間閑奸顏」。

- (9) 咸、山攝知照組二等和三等字的主要元音有別。如：二等字「站賺斬饒蘸衫鏟刪疝產」的韻母爲 an，三等字「沾粘瞻占陝閃纏扇善戰單姓」的韻母爲 en。
- (10) 深、臻攝開口三等知章組字與莊組字韻母有別。如：知章組字「沉針深枕沈珍趁神晨」的韻母爲 ɛ；莊組字「簪森參人~滲臻襯」的韻母爲 en。
- (11) 深、臻、曾、梗攝字鼻音韻尾合流爲 n，如「今慶刑」韻母爲 in；並且這幾個攝的齒音字鼻音韻尾消失，出現鼻化韻 ɛ̃，如「心升正~負」。
- (12) 宕、江攝韻母合流，讀 ɔŋ。如「幫邦張椿」韻母爲 ɔŋ。
- (13) 梗攝絕大多數字有文白異讀。例如：生 sen⁵⁵/saŋ⁵⁵、聲 sɛ̃⁵⁵/saŋ⁵⁵、易 i³²⁴/ia³²⁴。
- (14) 通攝三等字多數有文白異讀。例如：弓 kuŋ⁵⁵/tɕyŋ⁵⁵、從 tɕuŋ²¹³/tɕhyŋ²¹³、宿 su⁵⁵/ɕiu⁵⁵、共 k^huŋ³²⁴/tɕhyŋ³²⁴、玉 y⁵⁵/iu⁵⁵。

3.3 聲調特點

雲樓方言聲調特點依次如下：

- (1) 沒有入聲；古清入字讀陰平調；古全濁入聲字歸陽去調；古次濁入聲字部分歸陰平，部分歸陽去，如：出 tɕy⁵⁵、局 tɕiu³²⁴、木 mu⁵⁵、獵追趕 tie³²⁴。
- (2) 古平聲字按古聲母的清濁分爲陰平、陽平兩類。大多數次濁平字讀陽平調，但有少數次濁平字也讀陰平調，如：貓 miau⁵⁵、縈 iaŋ⁵⁵、聾 luŋ⁵⁵、拿 na^{55/213}、蒙 muŋ^{55/213}。
- (3) 古次濁去字讀陽去調，如：利 li³²⁴、認 nin³²⁴、用 yŋ³²⁴。但少數讀陰去，如：罵 ma³³、露 lu³³、霧 mu³³。
- (4) 古全濁上歸陽去，陰上、次濁上歸上聲。
- (5) 雲樓方言中還有兩個變調，分別是 24 調和 51 調。具體變調的性質和規律參見〈贛語雲樓話的變調〉(2010) 一文。

4. 同音字彙

本字彙以收錄吉安雲樓方言的單字音爲主。字彙按韻母、聲母、聲調的順序（見本文第 2 節）排列。寫不出本字的音節用方框「□」表示。釋義、舉例在字後用小字表示。用「~」代替被釋字。例子中常用的本字未明的字用同音字代替：如構詞作用的語素「[tɕ⁵⁵]」用「啍」表示，助詞「[tɕ³³]」、「[tɕ⁵⁵]」用「得」表示，「[tɕin⁵¹]」用「緊」表示，程度副詞「[sɛ⁵⁵]」用「殺」表示。又讀、文白

異讀等一字多音的現象在字的右下角用數碼表示不同的讀音。只有變調而未明本調的字，放在其他調類的後面，用「||」隔開。

i

- p [55] 蓖碑筆畢必逼碧壁□~殺：室內有煙霧而且空氣不流通，讓人難受□臭蟲 [51] 彼俾
鄙比 [33] 蔽閉筭臂痺滯過濾
- p^h [55] 批披鼻~□nin213：鼻涕痒匹 [213] 皮疲脾枇琵琶□跟~：跟著 [33] 屁 [324]
鼻~屎弊敝幣弊陸被婢避庇備蓖弼僻
- m [55] 咪~眼珠：微閉眼睛彌阿~陀佛密蜜覓□~飯：飯含在嘴裡很久，不吞下去 [213] 迷糜
彌~補眉楣 [51] 米美 [33] 泌秘 [324] 謎|| [24] 尾~巴
- f [55] 非飛妃 [213] 肥 [51] 匪 [33] 廢肺費
- t [55] 低裏下~：下面粒笠栗板~滴嫡的目~ [213] 梨雪~厘一~錢犁狸 [51] 底抵蠟
~：很值里量詞 [324] 力立|| [24] 李麻~嘢：李子鯉~嘢：鯉魚
- t^h [55] 堤弟老~：弟弟梯踢~球 [213] 題提~問啼蹄狸₂ [51] 體 [33] 帝替涕剃剔
[324] 弟兄~第遞隸地墳墓敵狄
- n [55] 日匿逆□~殺：很憐 [213] 泥倪宜儀尼疑 [51] 耳~朵擬 [324] 藝二，誼議
義|| [24] 蟻兒慢慢~嘢：慢慢兒地□瓜果的蒂
- l [55] 入曆 [213] 黎離籬厘~米 [51] 禮璃理李姓 [324] 例厲勵麗荔利痢吏
- tɕ [55] 雞稽饑肌基箕糞~機譏幾~乎輯汁執急級質吉即織職積脊績擊激 [51]
擠姐幾~斤紀~律杞枸~ [33] 祭際濟劑計繼繫~鞋帶寄妓翼紀年~記忌既
- tɕ^h [55] 妻欺七漆膝~頭：膝蓋戚 [213] 齊齊~橙奇騎岐祁鰭其棋期旗 [51] 乞啓企
豈 [33] 契器棄氣打~汽 [324] 技集及蟄疾侄直值殖植極寂
- ɕ [55] 氣聲~：聲音西犀溪兮奚犧嬉熙希稀襲濕吸悉失窒息熄識式飾惜昔夕釋適析
[51] 洗璽徙起喜 [33] 細戲氣~殺：很生氣 [324] 系中文~習十拾實食蝕席主~
- ∅ [55] 伊醫衣依揖乙一益譯 [213] 移姨夷飴 [51] 椅倚以已 [33] 意億憶抑
[324] 易難~肄異逸翼機~

u

- p [55] 不 [51] 補 [33] 布
- p^h [55] 鋪~床撲□番~：南瓜□夜~：夜晚 [213] 菩葡蒲脯僕扶 [51] 鋪店~普浦捕輔
[324] 部簿步埠□蹲
- m [55] 木目穆牧 [213] 模~子摹 [51] 母拇□估計 [33] 霧~露：霧 [324] 暮慕墓募
- f [55] 呼夫膚麤俘~虜傅忽福複敷 [213] 佛胡姓湖狐壺符芙幅 [51] 虎滸府俯腑
斧撫腐~爛 [33] 屨~水：用工具把水從低處往高處澆付賦富副負 [324] 互護父腐~竹
附赴婦~女阜獲服

- t [55] 都督□容器的底部 [51] 堵賭肚豬~ [33] 妒
- t^h [55] 突 [213] 徒屠途塗圖 [51] 土吐 [33] 兔 [324] 杜肚腹部度渡鍍獨讀毒
- n [213] 奴 [51] 努 [33] 怒₁ [324] 怒₂
- l [55] 鹿祿陸錄□鑄□~進~出：溜進溜出 [213] 爐蘆盧如 [51] 魯櫓虜鹵汝乳辱 [33] 露 [324] 路賂鷺
- ts [55] 租祝粥築足燭 [51] 祖組阻囑 [33] 做
- ts^h [55] 粗初畜~牲促觸₁ [213] 鋤 [51] 楚礎 [33] 措醋觸₂ [324] 助族逐
- s [55] 蘇酥梳疏蔬朔速叔淑束宿₁~舍 [51] 所數動詞蜀屬 [33] 素訴塑恕數名詞漱 [324] 熟俗贖
- k [55] 姑孤箍估穀 [51] 古牯豬~：公豬股鼓□跌~：丟臉 [33] 故固雇顧 || [24] □
~頭：那裡，遠指
- k^h [55] 枯哭 [51] 苦 [33] 庫褲酷
- ∅ [55] 烏污巫誣屋 [213] 吳鬍~子梧 [51] 伍隊~午武舞侮鵠□~正：做好了 [324] 誤悟惡可~務戊 || [24] 葫~噀：長條形葫蘆

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- t [55] 豬□刺、戳
- t^h [55] 禿
- n [51] 女語
- l [55] 律率□~衣服：脫衣服 [213] 驢 [51] 呂旅縷屢履 [324] 慮濾
- tɕ [55] 諸居車~馬炮誅株蛛朱硃珠拘駒臍肚~□~緊：塞住 [51] 煮舉主矩橘~噀：柚子
□一~噀：一小撮□~噀：瓶塞 [33] 著~作據注蛀鑄句醉劇
- tɕ^h [55] 蛆趨區驅出屈櫥壁~ [213] 除儲廚瞿 [51] 處~理娶娶 [33] 處~所趣□沒
韌性、易斷 [324] 苧~麻聚駐柱拄住樹具懼□~眼珠：揉眼睛
- ɕ [55] 書舒墟當~：趕集虛噓須鬚需輸雖恤 [213] 徐署薯殊隨 [51] 暑鼠許髓 [33] 嗦雞鴨等的胃戍□存儲 [324] 序敘緒絮續豎媚隧遂術述蓄~錢：攢錢
- ∅ [55] 淤~泥迂鬱玉₁孟₁芋~頭 [213] 漁余餘愚虞於~是于姓愉榆逾遺 [51] 雨宇禹羽 [324] 禦遇寓譽預豫孟₂愈喻裕域疫役欲浴

a

- p [55] 巴芭疤百柏~刺伯 [51] 把爸柏~樹 [33] 霸壩罷
- p^h [55] 拍魄 [213] 爬耙杷琶 [33] 怕 [324] 白
- m [55] 媽陌□~起得來：躲藏起來 [213] 麻蟆 [51] 馬碼□~東~西：摸摸這，摸摸那 [33] 罵 [324] 麥
- f [55] 花□用力~：用力甩 [213] 華划 [33] 化 [324] 劃話講~
- t [51] 打

- t^h [51] 塔大雁～
n [55] 拿₁ [213] 拿₂
ts [55] 楂渣遮抓摘隻炙～火：烤火 [51] 者眨揼一～：大拇指和食指兩指間的距離 [33] 詐榨炸蔗□按照、沿著、跟 || [24] □親～：親嘴
ts^h [55] 叉杈差～別岔車開～拆冊尺赤□開～：開裂□～頸：上吊 [213] 查茶搽 [51] 扯 [324] 聞擇～韭菜：清洗韭菜
s [55] 沙賒奢佘杉～木薩□～開脚：把脚叉開 [213] 蛇 [51] 灑舍傻耍～賴撒 [33] 赦放～：原諒曬 [324] 射麝社石卵～：鵝卵石
k [55] 家加痂佳 [51] 假賈格～噉：格子 [33] 架駕嫁稼價
k^h [55] 客□～喉：招住脖子 [213] □～痰：吐痰 [51] □～得下來：扯下來
h [55] 蝦嚇赫 [213] 霞遐瑕暇 [51] 下～吉安：去吉安，並且吉安在出發地的北面 [324] 廈下～～：每次夏謝姓
ŋ [55] 芽豆～鴉榼軛阿～開嘴：張開嘴 [213] 牙衙 [51] 啞瓦 [33] 亞₁揼硬給佻～崽噉：小男孩 [324] 研□～牙子：塞牙
∅ [55] 阿～姨

ia

- p [55] 壁
p^h [55] 劈
t [55] 爹老～：老爺 [51] □撒嬌 [324] 栗～子：板栗 || [24] 爹父親的面稱
t^h [55] 踢～一脚 [213] □提 [324] 笛糴～米：買米
n [55] 茶發～：撒嬌額 [51] 惹 [33] □膩煩
tɕ [55] □～手～脚：手脚痺病，形容不麻利 [33] 借 [51] 姐小～
tɕ^h [55] 招洽吃 [51] 且 [33] 恰 [324] 籍屨～板噉：木屨□～過：跨過，尤指女性跨過的動作
ɕ [55] 錫□～椅：靠椅 [213] 邪斜 [51] 寫□差 [324] 謝多～席篾～：竹席子
∅ [55] 丫押壓 [213] 爺 [51] 雅野□一～豆：一把豆□～豆：抓一把豆子□～癢：撓癢 [33] 亞₂ [324] 也夜易姓

ua

- k [55] 瓜 [51] 寡 [33] 掛
k^h [55] 誇 [51] 垮 [33] 跨 || [24] □樹～噉：樹樑
∅ [55] 蛙窪 [324] 話～事：說話

ɛ

- p [55] 八北柏姓
p^h [55] 迫 [324] 拔 || [24] □～梨：荸薺
m [55] 沒被水淹沒默 [324] 墨脈沒被稀泥淹沒

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- k^h [55] 筐眶 [213] 狂 [33] 況礦
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- k^h [55] 空～虛 [51] 孔恐 [33] 控空有～：沒空 [324] 共～同
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- t [55] □～緊：堵得慌 [51] 壟一～菜：一行菜
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昌梅香

The Homophone Syllabary of Yúnlóu Dialect in Jí'ān, Jiāngxī Province

Chāng Méixiāng

Shaanxi Normal University

This paper describes the phonology and lists the homophone syllabary of Yúnlóu dialect in Jí'ān, Jiāngxī Province.

Key words: Yúnlóu dialect in Jí'ān, Jiāngxī Province, phonology, homophone syllabary

A Comparative Look at Common Southern Jiāng-Huái and the Southern Mandarin Influences in Hé Xuān's *Yùnshǐ*

Richard VanNess Simmons

Rutgers University

This paper presents a brief examination of the phonology presented in the *Yùnshǐ* 韻史 (*History of Rimes*) by Hé Xuān 何萱 (1774-1841). Hé Xuān revised the traditional *Qièyùn* 切韻 system of initials and developed a simplified system of 21 initials that closely resembles that of the dialects of his native place, Tàixīng 泰興 and Rúgāo 如皋 Counties in Jiāngsū 江蘇. Our investigation determines that Hé Xuān's initial system indeed matches those dialects, but otherwise the text only partially reflects the phonology of Rúgāo or Tàixīng and local dialect pronunciation. The *Yùnshǐ* still clearly evidences additional influence from tradition and from nearby prestige *Guānhuà* 官話 dialects. Nevertheless, the text is a valuable record of certain Tōng-Tài 通泰 dialect features of early 19th century China.

Key words: Hé Xuān, *Yùnshǐ*, Tōng-Tài dialects, Rúgāo dialect, Tàixīng dialect, Jiāng-Huái Guānhuà, *Qièyùn*

1. Introduction

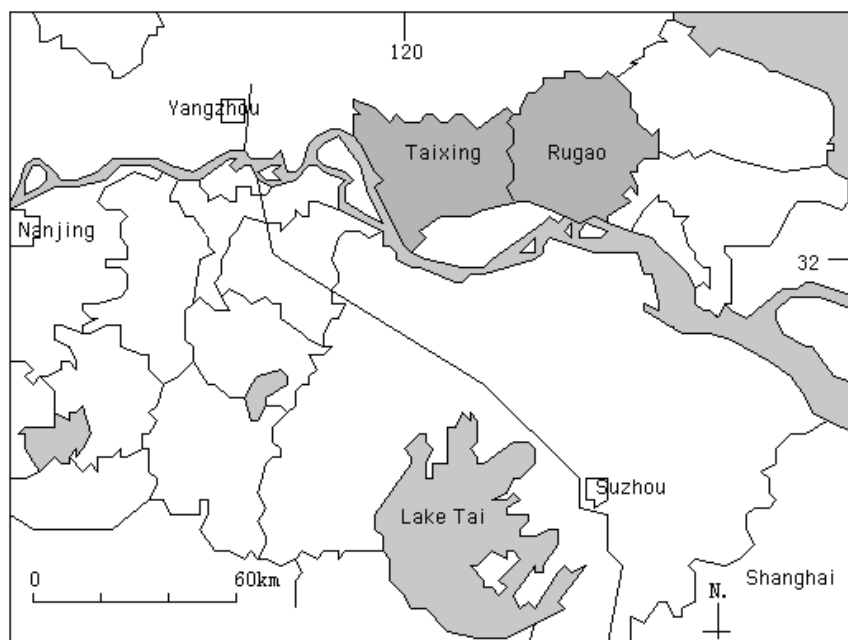
The Qīng scholar Hé Xuān 何萱 (1774-1841), author of the eighty scroll *Yùnshǐ* 韻史 (*History of Rimes*), believed that the traditional *Qièyùn* 切韻 system of 36 initials was flawed by a large number of redundancies and omissions. To rectify the situation, he proposed a simplified system of 21 initials, which he claimed was a more realistic model. Scholars have noted that the phonology of his system closely resembles that of the dialects of Tàixīng County, where he is from (Lǚ 1988:187-188, Gù 2001:5-7). Below we take a comparative look at Hé Xuān's system with regard to Common Dialectal Chinese (Norman 2006) and Common Southern Jiāng-Huái (Simmons et al. 2006), as well as to Tàixīng and Rúgāo dialect data. The goal is to determine if it is indeed possible to locate Hé Xuān's phonology precisely in the Tàixīng area, or whether it should be considered representative of a broader swath of the Yangtze dialect landscape. The results of our investigation find that the *Yùnshǐ* phonology is primarily representative of the most notable characteristic of Tàixīng-Rúgāo phonology—its initial system, while also adhering to a structure in tone categories that is more in conformity to tradition and

to the pattern that was dominant in more prestigious *Guānhuà* 官話 dialects nearby, such as Nánjīng 南京.

1.1 Hé Xuān and his *Yùnshǐ*

Hé Xuān had the courtesy name Shí Lú 石閭. He was from Tàixīng 泰興 County, Jiāngsū 江蘇. He achieved the rank of Tribute Student, *Suìgòng* 歲貢, in the imperial civil service examinations during the Dàoguāng 道光 reign (1821-1850), following which he spent some time in Shízhuāng 石莊 of neighboring Rúgāo 如皋 County, Jiāngsū. During his late years, Hé Xuān moved back to his hometown in Tàixīng. He abandoned the pursuit of imperial service, and started to compile a series of scholarly works. Among his rather prolific productions, perhaps the most well known work today is the eighty scroll *Yùnshǐ* (Gù 2001:5-7).

Though now the most recognized of his works, *Yùnshǐ* languished somewhat in obscurity until it was printed and published by the Commercial Press (Shāngwù Yīnshūguǎn 商務印書館) in 1936 under the advice of Luó Chángpéi 羅常培, who wrote a postface dated 1933 (民國二十二年十二月六日) in Shànghǎi 上海. Hé Xuān's compilation had 17 sections, which became 14 volumes in the printed facsimile edition. The 17 sections (*shíqī bù* 十七部) were modeled on Duàn Yùcái's 段玉裁 (1735-1815) *Shuō wén jiě zì zhù* 說文解字注.



Map 1: Tàixīng and Rúgāo in Jiāngsū

The bulk of the *Yùnshǐ* is mostly a philological study. It is primarily a history of words (or the morphemes represented by *zì* 字) sorted by rime. Luó Chángpéi tells us on page 7 of his postface that this book is not really a “history of rimes”. He says:

Though this book is titled *History of Rimes*, the benefit it has for those who study it is in its philological commentary, not its phonology.

此書雖以『韻史』名，而其所以嘉惠來學者，乃在訓詁，不在音韻。

So to organize his lexical and philological commentary, Hé Xuān developed a phonological scheme to use as a framework for sorting and indexing his entries. In this effort, Hé Xuān was not content to simply follow the schemes of earlier rime books. Instead he developed his own phonological system, revising major portions of the traditional scheme to fit his own sense of what was correct. The result is a novel phonology that appears to be based primarily on Hé Xuān's own dialect pronunciation, and one that departs rather radically from the standard *Qièyùn* rime book system.

1.2 Organization of the *Yùnshǐ*

In broad outline, Hé Xuān maintains key *Qièyùn* conceptual and theoretical categories. His departure from that framework is in his reorganization of the details. Just as in the *Qièyùn*, his *Yùnshǐ* entries are arranged by initial, rime, and tone, though not in the *Qièyùn* order. Whereas the *Qièyùn* sorts first by tone, *Yùnshǐ* sorts first by *yùn* 韻 ‘rime’, which accords with the sense of the title. Hé Xuān includes a total of over 70 rimes in the 17 sections. Within the rimes, the *yùn* are broken down by *shēng* 聲 ‘tone’ using the four traditional tones: *píng* 平, *shǎng* 上, *qù* 去, and *rù* 入. Within the tones, Hé Xuān's sorts entries by his version of the four *hū* 呼 (‘onset type’ in finals), which he identifies explicitly, as *kāikǒuhū* 開口呼, *hékǒuhū* 合口呼, *qíchīhū* 齊齒呼, and *cuōkǒuhū* 撮口呼. Finally he sorts by initial, *fǎnqiè shàngzì* 反切上字, within the *hū*.

Hé Xuān provides no indication of *yīn* and *yáng* registers in the organization of his work, though he acknowledges such a distinction exists in the *píng* tone. (We discuss this further below.) The main body of the *Yùnshǐ* is comprised of extensive discussions of the meanings and history of each character included as individual entries, following which Hé Xuān usually provides a comment. These discussions and commentary are Hé Xuān's main effort in this book. The phonology is essentially relegated to use in organizing the entries. But the phonology is what we will look at here, for Hé Xuān's bold and individual system bears a close relationship to his own vernacular; though on close examination we find that the *Yùnshǐ* scheme only partially reflects the linguistic reality of Hé's dialect pronunciation.

As he uses his phonological scheme to organize his book, all of Hé Xuān's phonological analysis and materials are duplicated in the Table of Contents, *mùlù* 目錄, of the *Yùnshǐ*. The Table of Contents is extensive. It comprises two of the fourteen volumes of the modern published editions and lists all the characters Hé Xuān treats in the work according to his phonological ordering.

2. The *Yùnshǐ* phonology

2.1 Hé Xuān's innovations

Though he uses *Qièyùn* categories, Hé Xuān revises the traditional 36 initials of the *Qièyùn* system to 21. Hé provides a chart showing the correspondence between his system and the *Qièyùn* on pages 1-3 in the prefatory materials, where he also lists the initial speller characters (*fǎnqiè shàngzì*) that he uses to represent each, categorized by his four *hū*. Table 1 provides a vertical rendering of Hé Xuān's chart, which runs horizontal from right to left in the original.

As Table 1 indicates, the *hū* are determined by the initial and also identified with *děng* 等 'rank' in Hé Xuān's scheme. Hé Xuān considered the *hū* to be a valid and useful set of analytical categories, but he was skeptical of the *děng*. Page 5 of the preface to the volume explains:

I, Xuān, am deeply skeptical of the *děng* rime scheme...I match the four *hū* with the four *děng* here to appease other scholars, [an approach] that is especially easy to understand and simple to use; though I do not know if it accords with the older interpretation or not.

萱雅不信等韻之說…余乃取四呼之法配此四等用餉學者，殊覺易明而便於用也，但不知與舊說合焉與否耳。

More significantly, none of the exemplars that Hé Xuān uses for the initial speller characters (*fǎnqiè shàngzì*) are in the *píng* tone. Hé tells us he did this deliberately, explaining on page 3 of his postface:

I do not use *píng* tone initials at all, to avoid the fact that *píng* tone has *yīn* and *yáng*. I use the four [places of] articulation and the 21 initials to encompass all characters, and thus there is no pronunciation that is not indicated.

概不用平聲字，避平聲字有含易也。以四音廿一母統括衆字，則音無不舉矣。

Table 1: Hé Xuān's twenty-one initials and four *hū*

	Hé Xuān's 21 Initials	Traditional 36 Initials	Kāikǒuhū 1 st děng	Hékǒuhū 2 nd děng	Qíchǐhū 3 rd děng	Cuōkǒuhū 4 th děng
	(何萱) 二十一字母	傳統(舊) 三十六字母	開口呼 “一等”	合口呼 “二等”	齊齒呼 “三等”	撮口呼 “四等”
1.	見	見	艮改	古廣	几竟	舉眷
2.	起	溪、群	侃口	曠苦	儉舊	郡去
3.	影	影、喻	案挨	甕腕	漾隱	羽永
4.	曉	曉、匣	海漢	戶會	向險	許訓
5.	短	端	帶到	董睹	邸典	釣的
6.	透	透、定	代坦	杜洞	體眺	統條
7.	乃	泥、孃娘	奈曩	怒煥	念紐	女嫋
8.	賚	來	郎老	路磊	亮利	呂戀
9.	照	照、知	酌諍	壯腫	軫掌	羣準
10.	助	穿徹牀澄	茁秩	狀蠹	寵齒	仲處
11.	耳	日	弱日	閏訥	忍攘	汝輓
12.	審	審、禪	稍訕	爽社	始哂	舜恕
13.	井	精	宰贊	祖纂	甌紫	俊醉
14.	淨	清、從	粲采	寸措	此淺	翠線
15.	我“鼻音”	疑	眼傲	五臥	仰彥	馭願
16.	信	心、邪	散燥	翼送	想小	敘選
17.	謗	邦	保博	布貝	丙貶	徧X
18.	竝	滂、竝	抱倍	佩普	品避	汴縹
19.	命	明	莫冒	昧慢	面美	沔謬
20.	匪	非 敷 奉	XX	奉廢	缶范	甫粉
21.	未	微	XX	味晚	務X	問武

The “four [places of] articulation”, *sìyīn* 四音, that Hé Xuān refers to here are: *hóuyīn* 喉音 ‘velars’, *shéyīn* 舌音 ‘alveolars’, *zhèngchǐ-chītóuyīn* 正齒齒頭音 ‘palatal and alveolar sibilants’, and *chúnyīn* 唇音 ‘labials’. Hé classifies the 21 initials of his system within these *sìyīn* as follows:

- (a) The *hóuyīn* include *jiàn* 見, *qī* 溪, *yǐng* 影, and *xiǎo* 曉.
- (b) The *shéyīn* include *duān* 端, *tòu* 透, *ní* 泥, and *lái* 來.
- (c) The *zhèngchǐ-chītóuyīn* include *zhào* 照, *chuān* 穿, *rì* 日, *shěn* 審, *jīng* 精, *qīng* 清, *yí* 疑, and *xīn* 心.
- (d) The *chúnyīn* include *bāng* 邦, *pāng* 滂, *míng* 明, *fēi* 非, and *wéi* 微.

Hé Xuān provides a justification for his innovative system of initials in his Postface, titled “Hé Shílú discusses the *Yùnsǐ* in reply to Wú Bǎihé 何石閭畬吳百盃論韻史書” (pages 2-3):

The thirty-six initials have been in use for a long time and seem close [to accuracy]; but under careful examination there are redundancies and omissions; they are not perfectly accurate. The initials *fēi*, *fū*, and *ní*, *niáng* each make two out of a single initial; this is a redundancy. The initials *jiàn*, *duān*, etc. have upper register (*yīn*) syllables, but no lower register (*yáng*) syllables; the initials *míng*, *wéi*, etc. have lower register (*yáng*) syllables, but no upper register (*yīn*) syllables; these are omissions. The initials *zhī*, *chè*, and *chéng* in ancient times were the same as *duān*, *tòu*, and *dìng*, but today are the same as *zhào*, *chuān*, and *chuáng*. There is no need to set them up separately; to do so is redundant. 三十六母行之既久，似爲近矣；然諦觀之，則有複有漏，未爲精善也。非敷泥娘借一誤爲二，複矣。見端等母有含_{〔陰〕}無易_{〔陽〕}，明微等母有易無含，漏矣。知徹澄三母之字，古音同於端透定，今音同於照穿牀，不必另出，另出亦復矣。

His use of the terms *yīn* and *yáng* is somewhat puzzling here. But Hé Xuān does go on to provide a clue to his thinking (page 4):

Qīng and *zhuó* are spoken of with regard to *píng* tone. *Yīnpíng* is *qīng* and *yángpíng* is *zhuó*, they cannot be confused. The *shǎng* and *qù* tones have just one pronunciation each; they have no *yīn-yáng* or *qīng-zhuó* that can be spoken of.... The *rù* tone syllables all contain *yīng* and *yáng*, two tone [enunciation types], and can be distinguished by the heaviness or lightness of their environment. When lightly pronounced, they are *qīng*, and their enunciation, lacking follow-through, would be *yīn*; when heavily pronounced they are *zhuó*, and their enunciation, with sufficient follow-through, would be *yáng*. For this reason *yīn* and *yáng rù* tones are kept together [with no distinction indicated between them] in the *Yùnsǐ*.

音之有清濁也，爲平聲言之也。含平爲清，易平爲濁，不容淆也。上去二聲，各祇一音，無含易清濁之可言也。…入聲每字皆含含易二聲，視水土之輕重而判。輕則清矣，其出音也送之不足而爲含；重則濁矣，其出音也送之足而爲易。韻史內入聲含易并合者此也。

This reveals that Hé Xuān acknowledged—and probably could clearly hear—that there was an *yīn-yáng* register distinction in the *píng* tone. Thus his *fǎnqiè* spellings kept

yīn and *yáng* clearly distinct in *píng* tone syllable. But he was uncertain of the *yīn-yáng* contrast in the *rù* tone, and believed it was to be found in some other articulatory difference that was unrelated to that of the register distinction in the *píng* tone.

2.2 The Rúgāo-Tàixīng connection

Hé Xuān's muddled understanding of *yīn* and *yáng* notwithstanding, what he has done with the initials is quite significant. For here the *Yùnshǐ* appears to have a connection with the dialects of Tàixīng and Rúgāo, and presumably Hé Xuān's own dialect. The number and type of Hé's initial categories exactly match those of modern Tàixīng and Rúgāo. Further, he merged all *Qièyùn zhuó* (voiced obstruent) initials with the *cìqīng* (voiceless aspirated obstruent) initials:

- (a) The *cìqīng* initial *qī* 溪 is merged with the *zhuó* initial *qún* 群 in Hé's initial *qǐ* 起.
- (b) The *cìqīng* initial *tòu* 透 is merged with the *zhuó* initial *dìng* 定 in Hé's initial *tòu* 透.
- (c) The *cìqīng* initials *chuān* 穿 and *chè* 徹 are merged with the *zhuó* initials *chuáng* 牀 and *chéng* 澄 in Hé's initial *zhù* 助.
- (d) The *cìqīng* initial *qīng* 清 is merged with the *zhuó* initial *cóng* 從 in Hé's initial *jìng* 淨.
- (e) The *cìqīng* initial *pāng* 滂 is merged with the *zhuó* initial *bìng* 竝 in Hé's initial *qǐ* 竝.

This also exactly matches the situation in the Tàixīng and Rúgāo dialects, where these mergers happened in all tones, with the *Qièyùn zhuó* initials all reflected as voiceless aspirates. This is a characteristic feature of the dialects of the greater Nántōng-Tàixīng 南通-泰興, or Tōng-Tài 通泰, region. Table 2 illustrates, with Tàixīng and Rúgāo forms (from the author's unpublished fieldnotes) provided for Hé Xuān's twenty-one initials. For comparison Table 2 also includes Common Dialectal Chinese (based on Norman 2006) and Common Southern Jiāng-Huái (from Simmons et al. 2006).

Table 2: Hé Xuān's twenty-one initials and the Tàixīng and Rúgāo dialects

	Hé Xuān's 21 Initials	Traditional 36 Initials	Common Dialectal Chinese	Common Southern Jiāng-Huái	Tàixīng 泰興	Rúgāo 如皋
1.	見	見	*k	*k	k	k
2.	起	溪、群	*kh, *g	*k', *kʰ	k'	k'
3.	影	影、喻	*Ø, *y, *w	*Ø	Ø	Ø
4.	曉	曉、匣	*x, *h	*x, *ʰ	x	x
5.	短	端	*t	*t	t	t
6.	透	透、定	*th, *d	*t', *tʰ	t'	t'
7.	乃	泥、孃 <small>娘</small>	*n	*n	n	n
8.	賚	来	*l	*l	l	l
9.	照	照、知	*c	*ts	ts	ts
10.	助	穿徹牀澄	*ch, *j	*ts', *tsʰ	ts'	ts'
11.	耳	日	*nh	*z	ʒ	ʒ
12.	審	審、禪	*sh, *zh	*s', *sʰ	s	s
13.	井	精	*ts	*tɕ	tɕ	tɕ
14.	淨	清、從	*tsh, *dz	*tɕ', *tɕʰ	tɕ'	tɕ'
15.	我	疑	*ng	*ŋ/*ng	ŋ	ŋ
16.	信	心、邪	*s, *z	*ɕ, *ɕʰ	ɕ/ʒ	ɕ
17.	滂	邦	*p	*p	p	p
18.	竝	滂、竝	*ph, *b	*p', *pʰ	p'	p'
19.	命	明	*m	*m	m	m
20.	匪	非 敷 奉	*f, *v	*f	f	f
21.	未	微	*mv	*v	v	v

3. Analysis of Hé Xuān's system

While the initials of Hé Xuān's system show a definite Tàixīng-Rúgāo connection, it remains to be determined whether or not the *Yùnshǐ* phonology evidences all of the distinguishing features of the dialects of that region. The most salient features that distinguish the present-day Tàixīng-Rúgāo dialects are:

- Qièyùn zhuóshǎng*, *zhuóqù*, and *zhuórù* syllables have voiceless aspirated initials.
- The *shǎng*, *qù* and *rù* tones have two registers.
- Qièyùn zhuóshǎng* and *zhuóqù* are merged.
- Qièyùn zhuóshǎng* and *zhuóqù* are also merged with *yīnpíng*.

The first feature is illustrated in the forms for Rúgāo given in Table 2 above. The other three features can be seen in the chart of Rúgāo tones provided in Table 3 (based on the author's unpublished fieldnotes). Tàixīng has the same set of tone categories and distribution, but slightly different phonetic tone contours. The numbers provide the tone contours using Y. R. Chao's five-point scale; the Chinese characters indicate representative syllables in each category. In both dialects, *shǎng*, *qù* and *rù* tones have two registers, in addition to *píng*; *Qièyùn quánzhuó shǎng* and *qù* are merged with *yīnpíng*; and *Qièyùn zhuó shǎng* and *qù* are merged. Below, we take a close look at Hé Xuān's *fǎnqiè* spellings to see if we can determine whether or not his pronunciation glosses evidence all of these characteristic Tàixīng-Rúgāo dialect features.

Table 3: Rúgāo's tones

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去	<i>rù</i> 入
<i>yīn</i> 陰	<i>quánqīng</i> 全清	31: 東該 通開	213: 懂古 統苦 買老	44: 凍怪 痛快	3: 百搭 哭怕
	<i>cìqīng</i> 次清				
<i>yáng</i> 陽	<i>cìzhuó</i> 次濁	35: 門龍 銅皮		31: 賣路	45: 六麥 毒白
	<i>quánzhuó</i> 全濁		31: 動近	洞飯	

3.1 The questions to explore

To discern how closely the *Yùnshǐ* reflects colloquial Rúgāo-Tàixīng characteristics, we need to examine the following questions:

1. Do *shǎng*, *qù* and *rù* tones all have two registers?
2. Are initials in *zhuó shǎng*, *qù* and *rù* tones actually aspirated?
3. Are *zhuó shǎng* and *qù* tones also merged with *yīnpíng*?
4. Are *zhuó shǎng* and *qù* tones merged?

In the passage cited in §2.1 above, Hé Xuān provides an explicit answer for Question 1:

Yīnpíng is *qīng* and *yángpíng* is *zhuó*, they cannot be confused. The *shǎng* and *qù* tones have just one pronunciation each.... *yīn* and *yáng rù* tones are kept together [with no distinction indicated between them] in the *Yùnshǐ*.

But if he was strongly influenced by his own dialect, and that dialect was similar in this regard to the modern Rúgāo dialect, might he inadvertently have revealed a register distinction in his *fǎnqiè* spellings?

Concerning questions 2, 3, and 4, Hé Xuān does not give any clear or explicit indication in his preface or postface. But here too, might he inadvertently reveal answers to these questions in his *fǎnqiè* pronunciation glosses?

A close examination of Hé Xuān's *fǎnqiè* spellings in the *Yùnshǐ* reveals that the answer to Question 2 is clearly Yes. The answers to Questions 1 and 3 appear to be No. And the answer to Question 4 is mixed. Below we take a detailed look at the situation.

3.2 Aspiration in the initials of *zhuó shǎng* and *qù* tone syllables

In Hé Xuān's reworking of the *Qièyùn* initial system, the majority of the exemplars he assigned to the merged *Qièyùn zhuó* categories for use as *fǎnqiè* initials spellers have *Qièyùn cìqīng* (aspirated) initials. The spellers are listed in Table 4, in which the underlined syllables have *Qièyùn cìqīng* aspirated initials and the others are *Qièyùn zhuó*-voiced initials. Hé Xuān frequently used the former to spell the initials of the latter. In many other places he also even glosses the initials of *cìqīng* syllables with *Qièyùn zhuó* graphs. In cases where an initial is represented by both *zhuó* and *cìqīng* types, we find that Hé Xuān makes no distinction between the members of the pairs in practice. So clearly the graphs belonging to the *Qièyùn zhuó* set must surely have also been aspirated in his dialect.

Table 4: Hé's aspirated initials in the *Qièyùn zhuó* categories

Hé Xuān 何萱二十一字母	<i>Qièyùn</i> 傳統三十六字母	Kāikǒuhū 開口呼 “一等”	Hékǒuhū 合口呼 “二等”	Qíchǐhū 齊齒呼 “三等”	Cuōkǒuhū 撮口呼 “四等”
起	溪 群	侃口	曠苦	儉舊	郡去
透	透 定	代坦	杜洞	體眺	統條
助	穿徹牀澄	莖秩	狀蠹	寵齒	仲處
淨	清 從	榮采	寸措	此淺	翠線
竝	滂 竝	抱倍	佩普	品避	汴縹

To illustrate, examples for Hé Xuān's *tòu* 透, aspirated dental obstruent, initial are provided in Table 5, in which the graphs on the right in each category are his *fǎnqiè shàngzì*, the initial speller characters. Subscripts indicate *Qièyùn* (QY) and Hé Xuān's (HX) initial category of the character they follow. The use of the *cìqīng* graph *tǒng* 統 to gloss initials in both *cìqīng* and (*quán*)*zhuó* categories in all tones—*píng*, *shǎng*, *qù* and *rù*—indicates that the syllables whose pronunciation they spell all had aspirated initials in the colloquial that underlay Hé Xuān's system. This is confirmed by the

concurrent use of the (*quán*)*zhuó* graph *dài* 代 to gloss the initials of syllables in the *cìqīng* category. Hé Xuān's *tòu* merges *Qièyùn tòu* 透 and *dìng* 定 initials, but keeps them distinct from the *quánqīng* set.

Table 5: Hé Xuān's *tòu* 透 initial

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去	<i>rù</i> 入
<i>yīn</i> 陰	<i>quánqīng</i> 全清	都QY端: 董HX短 兜QY端: 帶HX短	睹QY端: 董HX短 斗QY端: 帶HX短	妒QY端: 董HX短 鬥QY端: 帶HX短	的QY端: 釣HX短
	<i>cìqīng</i> 次清	偷QY透: 代HX透	土QY透: 統HX透	兔QY透: 統HX透	託QY透: 代HX透
<i>yáng</i> 陽	<i>quánzhuó</i> 全濁	圖QY定: 統HX透 頭QY定: 代HX透	杜QY定: 統HX透	渡QY定: 統HX透 豆QY定: 代HX透	朶QY定: 統HX透

Tables 6 to 8 provide further examples showing Hé Xuān's *qǐ* 起 (aspirated velar), *jìng* 淨 (aspirated dental sibilant) and *bìng* 竝 (aspirated bilabial obstruent) initials, which have respectively merged *Qièyùn qǐ* 溪 with *qún* 群, *qīng* 清 with *cóng* 從, and *pāng* 滂 with *bìng* 竝. The distribution of the various initial speller characters as well as the characters being glossed in all cases show that the merged *cìqīng* and (*quán*)*zhuó* set are in contrast with the *quánqīng* set and the contrast between the two sets was aspirated versus unaspirated, respectively. Clearly, the answer to Question 2 is, yes, *zhuó shǎng* and *qù* as well as *rù* were aspirated in Hé Xuān's system.

Table 6: Hé Xuān's *qǐ* 起 initial

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去	<i>rù</i> 入
<i>yīn</i> 陰	<i>quánqīng</i> 全清	鉤QY見: 艮HX見	狗QY見: 艮HX見	葦QY見: 艮HX見	腳QY見: 几HX見
	<i>cìqīng</i> 次清	樞QY溪: 侃HX起	壘QY溪: 口HX起	寇QY溪: 侃HX起 欠QY溪: 舊HX起	泣QY溪: 舊HX起
<i>yáng</i> 陽	<i>quánzhuó</i> 全濁		近QY群: 舊HX起		及QY群: 舊HX起

Table 7: Hé Xuān's *jìng* 淨 initial

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去	<i>rù</i> 入
<i>yīn</i> 陰	<i>quánqīng</i> 全清	漿QY精: 紫HX井	獎QY精: 紫HX井	醬QY精: 紫HX井	
	<i>cìqīng</i> 次清	麤=粗/QY清: 寸HX淨		湊QY清: 粲HX淨	
<i>yáng</i> 陽	<i>quánzhuó</i> 全濁		在QY從: 粲HX淨		

Table 8: Hé Xuān's *bìng* 竝 initial

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去	<i>rù</i> 入
<i>yīn</i> 陰	<i>quánqīng</i> 全清	標 _{QY} 幫: 徧 _幫			
	<i>cìqīng</i> 次清	飄 _{QY} 滂: 汴 _{HX} 竝	漂 _{QY} 滂: 汴 _{HX} 竝		
<i>yáng</i> 陽	<i>quánzhuó</i> 全濁	瓢 _{QY} 竝: 汴 _{HX} 竝			薄 _{QY} 竝: 抱 _{HX} 竝

3.3 Register distinction within tones

Exploring the question of whether or not *shǎng*, *qù* and *rù* tones have two registers (Question 1 above) we must determine whether or not Hé Xuān maintains a distinction between the spellers he uses for the rimes, the *fǎnqiè xiàzì*, across *yīn* and *yáng*, or *qīng* and *zhuó*, categories. Looking first at examples for non-*rù* tones we only find a clear register distinction in *píng* tone, as shown in Tables 9 and 10. In these tables, we give the complete *fǎnqiè* spellings following the characters they gloss. Characters that share the second character in the gloss would belong to the same tone category.

In the *píng* tone, Hé Xuān's spellers for rimes do not cross the register boundary and upper and lower *píng*, *yīnpíng* and *yángpíng*, are kept distinct as tones. For instance the shared rime and *yángpíng* tone of *lóu* 樓 and *tóu* 頭 are kept distinct from the shared rime and *yīnpíng* tone of *ōu* 甌 and *gōu* 鉤. But rime spellers frequently do cross the register boundary for *shǎng* and *qù* tone syllables, showing quite clearly that there is no register distinction to be found in his *fǎnqiè* spellings for those two tones. For instance, in the *shǎng* tone *dǒu* 斗 and *gǔ* 古 cross the *yīn*-*yáng* boundary; and *dòu* 豆 and *gù* 固 are found in all positions in the *qù* tone. Hence, not only did Hé Xuān deny that there is a *yīn* and *yáng* distinction in *shǎng* and *qù*, his selections of *fǎnqiè xiàzì* reveal that he was clearly not influenced by such a distinction, even if one might have been found in his own dialect.

Table 9: Register distinction in the *píng*, *shǎng* and *qù* tones

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去
<i>yīn</i> 陰	<i>quánqīng</i> 全清	溝: 艮甌 鉤: 艮甌 兜: 帶甌	狗: 艮口 斗: 帶口 𪔐透: 代口	蕇: 艮豆 鬥: 帶豆 寇: 侃漏 湊: 粲豆
	<i>cìqīng</i> 次清	搆: 侃鉤 偷: 代鉤		漏: 郎豆
<i>yáng</i> 陽	<i>cìzhuó</i> 次濁	樓: 郎侯	簍: 郎斗	漏: 郎豆
	<i>quánzhuó</i> 全濁	頭: 代樓		豆: 代漏

Table 10: Register distinction in the *píng*, *shǎng* and *qù* tones (continued)

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去
<i>yīn</i> 陰	<i>quánqīng</i> 全清	都: 董姑	睹: 董古	妒: 董固
	<i>cìqīng</i> 次清	麤=粗: 寸姑	土: 統古	兔: 統固
<i>yáng</i> 陽	<i>cìzhuó</i> 次濁	廬: 磊徒	魯: 磊古	怒: 煥=暖固
	<i>quánzhuó</i> 全濁	圖: 統廬	杜: 統古	度: 統固

As noted above, Hé Xuān described a vague *yīn-yáng* distinction in the enunciation of *rù* tone syllables. But in practice, the *Yùnshǐ* rime spellers also make no register distinction in the *rù* tone. Table 11 illustrates, where we can see that *gè* 各, *lüè* 略, and *lì* 立 are used to gloss *rù* tone rimes for syllables in all positions in both *yīn* and *yáng* registers.

Table 11: No register distinction in *rù* tone

<i>Qièyùn Categories</i>		<i>rù</i> 入		
<i>yīn</i> 陰	<i>quánqīng</i> 全清	各: 艮洛	腳: 几略	級: 几立
	<i>cìqīng</i> 次清	託: 代各	惜: 小略	泣: 舊立
<i>yáng</i> 陽	<i>cìzhuó</i> 次濁	落: 郎各	席: 小略 逆: 我略	立: 利及
	<i>quánzhuó</i> 全濁	薄: 抱各	射: 倡 略 箸: 倡 略	及: 舊立

3.4 Distinction between *yīnpíng* and lower *shǎng* and *qù* tones

We pointed out previously that Rúgāo and Tàixīng dialects merge *Qièyùn zhuóshǎng* and *zhuóqù* with *yīnpíng*. Our Question 3 was to find whether such a merger might be reflected in the *Yùnshǐ*. Close analysis does not uncover any reflection of such a merger in Hé Xuān's use of rime spellers. The examples in Tables 9 and 10 illustrate that Hé Xuān's system keeps lower register *shǎng* and *qù* quite distinct from the *yīnpíng* tone. The answer to Question 3 is thus clearly in the negative.

3.5 Merger of *Qièyùn zhuó shǎng* and *qù* tones

The merger of *Qièyùn zhuó shǎng* and *qù* tones is quite universal across Mandarin dialects, for which it can be considered an identifying feature (Norman 1997 and 2004, Simmons 1999, Xiàng 2007). Rúgāo and Tàixīng dialects do also reflect this feature. In Hé Xuān's *Yùnshǐ* clear traces can be found as well, though there is some inconsistency. Table 12 illustrates. There we see that the *Qièyùn quánzhuó shǎng* tone syllables *dài* 待 and *zài* 在 have rime spellers that are in different tones. *Dài* is clearly glossed with a *shǎng* tone speller, *nǎi* 乃, while *zài* is glossed with the *qù* tone *dài* 岱, which is used to gloss rimes in both upper and lower registers. Also note that *dù* 杜 in Table 10, is glossed with a *shǎng* tone speller as well.

Table 12: Partial merger of *Qièyùn zhuó shǎng* and *qù*

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去
<i>yīn</i> 陰	<i>quánqīng</i> 全清	該: 艮哉	改: 艮乃	戴: 到岱 再: 贊岱
	<i>cìqīng</i> 次清	胎: 坦哉		
<i>yáng</i> 陽	<i>cìzhuó</i> 次濁	來: 郎材	待: 坦乃 在: 粲岱	代: 坦戴 岱: 坦戴
	<i>quánzhuó</i> 全濁	臺: 坦來		

Though *Qièyùn zhuó shǎng* tone syllables are relatively few, and examples are rare in the *Yùnshǐ*, a couple of additional examples are provided in Table 13: *Qièyùn quánzhuó shǎng* tone syllables *biàn* 辯, 辦 and *jìn* 近. As Table 13 indicates, this *jìn* is glossed with a *qù* tone rime speller, one that furthermore is in the *yīn* register: *jìn* 靳. But the two *biàn* have a *cìzhuó shǎng* tone speller: *yǎn* 演.

Table 13: More evidence of merged *Qièyùn zhuó shǎng, qù* and *rù*

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去	<i>rù</i> 入
<i>yīn</i> 陰	<i>quánqīng</i> 全清	丁: 邸青 堅: 几千	頂: 邸挺 驚: 几挺 緊: 几引 繭: 几演	進: 紫信 靳: 几近 敬: 几定 箭: 紫旬	吉: 几逸
	<i>cìqīng</i> 次清	聽: 眺荆	挺: 眺警	漵: 此進	匹: 避逸
<i>yáng</i> 陽	<i>cìzhuó</i> 次濁	靈: 亮情	領: 亮引 演: 漾翦 = 剪	令: 亮進	栗: 亮吉
	<i>quánzhuó</i> 全濁	田: 體年 停: 眺情	辯、辦: 避演 近: 舊靳	電: 體箭 定: 眺敬	姑: 舊逸

This mixed situation likely indicates that Hé Xuán was influenced by the rime book tradition in determining *shǎng* and *qù* tone syllables, but the merger of the lower *shǎng* and *qù* was well entrenched in his time and he could not consistently maintain a distinction between the two tones in the *zhuó* category. This would be the result of inadvertent, unconscious influence from Hé Xuān's own vernacular. So, though the evidence is mixed, the answer to Question 4 would be in the affirmative.

3.6 The *Yùnshǐ* tones

To show the distribution of tones in syllables of all *Qièyùn* categories, Table 13 includes a set of syllables with *cìzhuó* (sonorant) initials, where it can be seen that the *cìzhuó shǎng* syllables *lǐng* 領 and *yǎn* 演 are in the upper, *yīnshǎng* tone. The *cìzhuó* syllables in Tables 9 and 10 contain further examples: *lǔ* 魯 and *lǒu* 簍. We can see that Hé Xuān's system keeps *cìzhuó shǎng* in *yīnshǎng*, which matches the Rúgāo-Tàixīng pattern and is typical of Mandarin dialects in general (Simmons 1999). Thus Hé Xuān's system has 5 tones in the pattern presented in Table 14.

The *Yùnshǐ* pattern contrasts with the Rúgāo pattern shown in Table 3 in the lack of a register distinction in the *qù* tone, and possibly the *rù* tone also. Since, as noted above in §2.1, Hé Xuān acknowledged that some kind of *yīn-yáng* difference did exist in the *rù* tone, a register distinction may have been present in his speech, though he does not reflect it in his *fǎnqiè* system. The *Yùnshǐ* merged *yīn-yáng qù* tone is problematic, however, if it actually represents Hé Xuān's own speech and at the same time is ancestral to the present day Tàixīng-Rúgāo system. A merger of lower register *qù* with *píng* could have happened after Hé's lifetime. But a register distinction in *qù* could not have been restored in the dialects if upper and lower *qù* had already merged in Hé Xuān's time (and the tonal and/or initial distinctions that maintained them had thus been lost), which is what the *Yùnshǐ* seems to indicate.

Table 14: The 5 tones in Hé Xuān's *Yùnshǐ*

<i>Qièyùn Categories</i>		<i>píng</i> 平	<i>shǎng</i> 上	<i>qù</i> 去	<i>rù</i> 入
<i>yīn</i> 陰	<i>quánqīng</i> 全清	1	3	4	5
	<i>cìqīng</i> 次清				
<i>yáng</i> 陽	<i>cìzhuó</i> 次濁	2			
	<i>quánzhuó</i> 全濁				

Though we find aspirated initials in the *zhuó shǎng*, *qù*, and *rù* categories in the dialects of the Tàixīng-Rúgāo region, all of them also maintain a register distinction in *qù* and *rù* tones (Lǚ 1988:170-173). In the modern dialects of the region, a register distinction is strong and universal in Tàixīng-Rúgāo. We have not come across examples of dialects having the Tōng-Tài initial system where a register distinction is missing.

Perhaps a register distinction did exist in Hé Xuān's dialect in all tones, but he perceived of it as entirely an issue concomitant with the initials in the *shǎng*, *qù*, and *rù* tones, whose difference from the *Qièyùn* system he had acknowledged and accommodated. This could have been because the register distinction in those tones was limited to dialects in a fairly restricted distribution in his immediate locale, as is the case today, and was not found in other Mandarin dialects nearby, such as Nánjīng and Yángzhōu 揚州 which have merged upper and lower registers in *qù* and *rù* (Lǚ 1988:173). But, though a register distinction in *shǎng*, *qù*, and *rù* tones may have been difficult to acknowledge within the greater regional context, in the *píng* tone Hé Xuān could fully and freely account for the *yīn-yáng* split. Because a *píng* register distinction and aspiration in *píng* lower register initials were also essentially universal in Mandarin and other dialects beyond the Tàixīng-Rúgāo region. This would have allowed his tonal categories to conform closely to what may have been a Mandarin dialect reading tradition common to the lower Yangtze cultural region in general.

Hé Xuān's mixed, uneven treatment of the *Qièyùn quánzhuó shǎng* tone syllables within an essentially five-tone system confirms for us that he was most certainly influenced by the conflicting influences of tradition and actual pronunciation. Hé was reluctant to cross or merge traditional tonal boundaries between *shǎng* and *qù* even though he acknowledged a split *píng* tone. Hence conformity to tradition clearly held the upper hand, as earlier observed by Lǚ Guóyáo 魯國堯, who concluded that Hé Xuān “did not dare completely turn his back on established tradition” 不敢盡背舊傳統 (1988:188), and Gù Qián 顧黔, who noted that Hé “clearly carried forth the five-tone interpretation of the Yuán (1206-1368) and Míng (1368-1644) periods” 顯然是承元明以來五聲之說 (1996:170, 2001:6). Gù Qián's principal point is that Hé was not constrained to only using just the traditional four tones in his indication of both *yīn* and *yáng píng* tones. Lǚ Guóyáo emphasizes that Hé was emboldened to do so in part

because of the precedent set by Zhōu Déqīng's 周德清 (1277-1365) *Zhōngyuán yīnyùn* 中原音韻 (published 1324), which has a split *píng* tone, but that he was not so bold as to go beyond that.

Still it is surprising if a register distinction did in fact exist in his dialect in the *qù* and *rù* tones that Hé Xuān would not more strongly, though inadvertently, be influenced by that distinction in his selection of *fānqiè* speller characters. Nevertheless, the strongest influence in the structure of his tonal categories was most likely from wider Mandarin convention as found in the nearby dialects of Yángzhōu and, especially, Nánjīng, both of which had five-tone systems exactly matching that of the *Yùnshǐ*. These cities were culturally influential Qīng metropolises with dialects representative of the *Guānhuà* norms that were also of much greater prestige than his own local dialect (on *Guānhuà* see Coblin 2000, 2007). Indeed, the *Yùnshǐ* conformity to a five tone system is evidence of the strength of that prestige.

3.7 Other examples of local features in the *Yùnshǐ*

In addition to the systematic merging of *cìqīng* and *quánzhuó* initials, and the inconsistent merging of *zhuóshǎng* and *zhuóqù*, the *Yùnshǐ* also occasionally evidences other non-standard or local elements that likely reflect characteristics of Hé Xuān's dialect. For instance, his *fānqiè* sometimes fail to distinguish between final dental nasal [-n] and velar nasal [-ŋ]. This is a phonological trait widely common to the dialects of the Yangtze watershed. Examples are seen where Hé Xuān glosses the rime of both *lěng* 冷 and *lǐng* 領 with *yǐn* 引, and where he glosses the rime of *líng* 零 with *mín* 民.

A further example is seen in *qíchíhū* of Hé Xuān's *qiān-zhěn-zhèn-zhì* 馭稹鎮質 rime set. This rime conflates Common Dialectal Chinese (CDC) rimes *in and *ian, for example: *jǐn* 緊 (CDC *kin) and *yǐn* 引 (CDC *yin) are listed under the *zhěn* rime together with *jiǎn* 黻 (CDC *kian) and *yǎn* 演 (CDC *yan). Although Hé Xuān still keeps them separate within *zhěn* and syllables from the two CDC rimes do not share the same *fānqiè xiàzì* rime speller, this is a clue that Hé Xuān probably thought the two CDC rimes to be quite close. He would perceive them as close in his speech if the diphthong in CDC *ian was reduced and the main vowel was raised and fronted, bringing the final closer to *in, which is precisely the case in many Tōng-Tài dialects today (see Gù 2001: 14-31).

We also ran across a couple of local words in our examination: *kàng* 囤 'hide, store away' is the preferred colloquial word in the Yangtze watershed region for a meaning that is usually rendered by *cáng* 藏 in Mandarin dialects further north. Also *Yùnshǐ* lists *dǎ* 打 'to hit' with the phonological *fānqiè* gloss *dǐ+tǐng* 邸挺切. This reveals that this word had a nasal ending and that it rhymes with *lěng* 冷 (*liàng+yǐn* 亮

弓[切] ‘cold’ (see above regarding the final nasal). This clearly reflects the phonology of the word for ‘to hit’ that is common in the Wú dialects to the south and contrasts with the Mandarin word *dǎ*, with a non-nasal ending, and for which the pronunciation of the character for this word is a *xùndú* 訓讀 (*kunyomi*) native reading. Both of these words must have been part of Hé Xuān’s colloquial speech.

4. Conclusion

Our analysis of the *Yùnshǐ* has determined that Hé Xuān’s text only partially reflects the phonology and linguistic reality of an underlying Rúgāo-Tàixīng dialect pronunciation. The phonology of Hé Xuān’s *Yùnshǐ* thus is not a wholly viable representation of a single dialect or a local phonology. It clearly evidences additional and pervasive influence from various traditions, including the longstanding and powerful influence of the *Qièyùn* (even despite Hé Xuān’s efforts to revise that), as well as influence from nearby prestige dialects and *Guānhuà* norms that were obliquely reinforced by authoritative written sources such as the *Zhōngyuán yīnyùn*, all converging in what must have been a prevailing local reading tradition. Still, Hé’s unabashed adoption of features of local phonology, however incomplete it may be, provides a relatively rare but vividly tangible record of dialect variation in early 19th century China. Further, his insight into the aspirated nature of *Qièyùn zhuó* initials in *shǎng*, *qù*, and *rù* tones reveals to us that this particularly characteristic feature of his dialect is at least 200 years old.

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何萱的《韻史》與江淮官話共同音系的比較研究

史皓元

羅格斯大學

本文對何萱 (1774-1841) 《韻史》一書提出的音韻體系作了一個簡要的考證。何萱在傳統《切韻》聲母系統的基礎上，整理了一套簡明的，包含 21 個聲母的音系。這個聲母系統正好與他家鄉——江蘇泰興和如皋兩縣的方言音系相互吻合，一一對應。本文的研究結果肯定了這一點。但是在別的方面，《韻史》沒有完全反映如皋和泰興的音系。該書依然清晰地顯示出受到傳統音韻學以及周邊優勢官話方言的影響。不過，不可否認的是何萱的《韻史》對 19 世紀早期中國通泰方言的代表性特徵，即聲母系統，是極具價值的記錄。

關鍵詞：何萱，韻史，通泰方言，如皋方言，泰興方言，江淮官話，切韻

On Coblin's Law*

Guillaume Jacques
CNRS-EHESS-CRLAO

Coblin's law is one of the most important phonetic laws in Tibetan historical phonology. This law was devised to explain alternations in the verbal system, but the present article shows that its range of application can be observed in the nominal system too. It also suggests an extension of Coblin's law: *sNC- > sC-.

Key words: Tibetan, phonology, morphology, dissimilation, cluster simplification

1. Introduction

In a recent article, Hill (2011:446) has proposed the term "Coblin's law" for a set of rules of cluster simplification observed in the Tibetan verb, first stated by Coblin (1976). Coblin's analyses have been widely accepted by specialists of Tibetan historical linguistics, and it seems fitting to provide a contribution on this topic for a Festschrift in honour of Professor Coblin.

In this article, I will present the empirical basis of Coblin's law, show its significance for Tibetan historical phonology outside of the verbal system, and finally propose an extension of this law, namely *sNC- > sC-.

2. Coblin's three rules

Coblin's law encompasses three distinct phenomena, which we designate respectively as rules 1, 2 and 3.

Rule 1 concerns the dissimilatory loss of labial stops, which occurs in the past and future stems of *b-* or *p-* initial verbs (Coblin 1976:49, 53). An example of the application of this rule is provided by the paradigm of the verb *bied* 'to do'. We present here the paradigm of this verb with a pre-Tibetan reconstruction based on Coblin's insight but following Jacques' (2012a) reconstruction model of pre-Tibetan reconstruction:¹

* In this paper, Tibetan is transcribed using Jacques' (2012b) transcription system. I wish to thank Nathan Hill, Newell Ann Van Auken and two anonymous review for insightful comments on this paper; I am responsible for any remaining errors.

¹ The symbol *V in the pre-Tibetan reconstructions refer to a vowel that was weakened to

Table 1: The paradigms of *b'ed* ‘to do’ and *ⁿb'in* ‘to take out’

	Present	Past	Future	Imperative
Pre-Tibetan	*b'a-d	*BV-b'a-s	*BV-b'a	*b'a-s-o
Old Tibetan	<i>b'ed</i>	<i>b'as</i>	<i>b'a</i>	<i>b'os</i>
Pre-Tibetan	*N-b'iuŋ-d	*BV-p'iuŋ	*GV-b'iuŋ	*p'iuŋ-o
Old Tibetan	<i>ⁿb'in</i>	<i>pʰiuŋ</i>	<i>db'iuŋ</i>	<i>pʰiuŋ</i>

Since initial geminate stops are not allowed in Old Tibetan, the past and future prefixes *BV- > *b-* are deleted and the forms appear prefix-less. This law applies without exception. Coblin (1976:49) argued the verb ‘to write’ *ⁿbri* to be an example of this law, and postulated for the past form the development *b-bri-s > *bris*. However, as shown by Hill (2005), this verb is an example of *r-* stem. The archaic present form was *N-ri > *ⁿdri* and the present form *ⁿbri* attested in Classical Tibetan and in modern languages results from analogy with the past form *bris*. The Past Tense prefix *b-* was reinterpreted as part of the root:

Table 2: The paradigm of *ⁿbri* ‘to write’ (analogical forms are shaded in grey)

	Present	Past	Future	Imperative
Pre-Tibetan	*N-ri	*BV-ri-s	*BV-ri	*ri-s-o
Old Tibetan	<i>ⁿdri</i>	<i>bris</i>	<i>bri</i>	<i>ris</i>
Classical Tibetan	<i>ⁿbri</i>	<i>bris</i>	<i>bri</i>	<i>bris</i>

Rule 2 is the loss of the present *N- prefix when the verb root contains an initial cluster. In Old Tibetan, we do find three-element consonant clusters that have the nasal preinitial *ⁿ-* (ʕ) as the first element, such as *ⁿgr-* or *ⁿb'-*. However, such clusters only occur when the third element is one of {r, j, w}, that is when it is a *medial* consonant. Neither NCC_i- nor CNC_i- type clusters are allowed in Tibetan when C_i represents the radical consonant of the cluster (which is called *miŋ.gzi* in Tibetan). For instance, while *ⁿgr-* is possible, **ⁿgd-* or **ⁿdm* are not.

Given this phonotactic constraint, the present prefix *N- never appears in the paradigms of verbs with a CC_i- type cluster. For instance, in the paradigm of ‘see’, the present form is *lta* not **ⁿlta* because the cluster **ⁿlt-* violates the constraint above. Again, this rule is without exception.

schwa, and then to zero; the loss of labial prefixes occurred only after the vowel in these prefixes disappeared: *BV-b'a-s > *B-b'a-s > *b'as*.

Table 3: The paradigm of *lta* 'to see'

	Present	Past	Future	Imperative
Pre-Tibetan	*N-lta	*BV-lta-s	*BV-lta	*lta-s-o
Old Tibetan	<i>lta</i>	<i>bltas</i>	<i>blta</i>	<i>ltos</i>

Rule 3 concerns the deletion of the *g-/d-* present and future prefixes, which occurs with another conjugation class.² The preinitials *g-* and *d-* in Tibetan occur in complementary distribution with respect to the radical consonant. As pointed out by Li (1933), *g-* appears before dentals and palatals (*gt-*, *gte-* etc), while *d-* appears before labials and velars (*db-*, *dŋ-* etc). The only cases in which they are potentially contrastive is before *r-* and *l-*, as *DV-l- yields *ld-* while *GV-l- becomes *gl-*.

The present tense prefix appearing as surface *g-/d-* has to be reconstructed *Go- in pre-Tibetan: the vocalism *o is reconstructed on the basis of the vowel alternation that occurs in verb roots of this type (as in *gtoŋ*, past *btanŋ* 'to send'; see Jacques 2012a).³

The reconstruction of *G- rather than *D- is based on the fact that lateral initial verbs still takes a velar prefix, as for instance *klog* < *Go-lhag 'to read'; if the present prefix were a dental *Do, we would rather expect a form *ltog.⁴

The following paradigm illustrates the application of rule 3 (Coblin 1976:56-57):

Table 4: The paradigm of *skanŋ* 'to fill'

	Present	Past	Future	Imperative
Pre-Tibetan	*Go-skanŋ	*BV-skanŋ-s	*BV-skanŋ	*skanŋ-s-o
Old Tibetan	<i>skonŋ</i>	<i>bskanŋs</i>	<i>bskanŋ</i>	<i>skonŋs</i>

The present form is *skonŋ* not *dskonŋ, as a cluster such as *dsk-* violates the constraint stated above.

No language seems to present exactly the same phonotactic rules as those proposed by Coblin for Tibetan. We do find dissimilatory phenomena applying to prefixes in related languages such as Horpa and Khroskyabs (Sun 2007 and Lai 2013:139-144), but the phonological processes observed in those languages are still considerably different from those postulated for pre-Tibetan.

² Despite the doubts of an anonymous reviewer, rule 3 does apply to the *g-/d-* present prefix. The *d-* allomorph is attested in verbs such as *dgod*, *bgad* 'to laugh' and *dgroŋ*, *bkroŋs* 'to assassinate' (the latter has the alternative present form *groŋ* also attested in Hill 2010).

³ Coblin (1976:55) proposed to reconstruct simply *g- for the present prefix, but this reconstruction does not account well for the rounding of the vowel.

⁴ On the conjugation of this verb, see de Jong (1973) and Hahn (1999).

3. Coblin’s law outside the verb system

The three phonetic rules proposed by Coblin are based on his internal reconstruction of the verbal system. It is not likely that this rule only applied to verbs, but finding evidence for Coblin’s law outside the verbal system is more difficult, as the prefixal nominal morphology in Tibetan is less developed than the verbal one. In this section, we will concentrate on Coblin’s rule 3, the deletion of *d-/g-*, as potential examples are more numerous.

In Tibetan, we find at least three distinct *d-/g-* prefixes⁵ outside of the verb system: an “animal classifier” prefix, a “body part” prefix, and a nominalization prefix. The existence of these prefixes has already been mentioned by other scholars (such as Wolfenden 1929, Matisoff 2003), but their behaviour in Tibetan requires special comments.

3.1 Animal prefix

Many authors such as Matisoff (2003:134-135) mention the existence of a velar “animal prefix”. In Tibetan, many animal names have a *g-/d-* prefixal element, and in a few of these words, we have bisyllabic Japhug Rgyalrong cognates where Tibetan *g-* corresponds to either a velar *ku-* or a uvular *qa-* prefix (Jacques 2008:53-54).⁶

Table 5: The animal prefix *g-* in Tibetan

Tibetan	Meaning	Japhug	Meaning
<i>g-zig</i>	leopard	<i>ku-rtsɿ</i>	id.
<i>g-lag</i>	eagle	<i>qa-liaʁ</i>	id.
<i>g-jan</i>	sheep	<i>qa-zo</i>	id.
<i>k-lu</i> < *GV-lhu	nâga	<i>qa-juu</i> , also <i>-ɣju</i> in compounds	worm

The “prefixes” are not real derivational prefixes, as they are not used to create a noun out of another lexeme. Their origin is unclear, though they may be the remnant of a system of noun classification.

Not all animal names in Tibetan have *d-/g-* prefix. Even in Japhug, the prefixes *ku-* and *qa-* are not found on all animal names; for instance, common name such as *tsʰɿt* ‘goat’ or *mbro* ‘horse’ lack it. Therefore, the absence of the *d-/g-* prefix in Tibetan

⁵ As briefly mentioned in the previous section, the preinitials *g-* and *d-* are in complementary distribution, and thus we cannot distinguish between velar and dental prefixes, and between voiced and unvoiced stops on the basis of Tibetan data.

⁶ The correspondence of Tibetan *j-* and *l-* to Japhug *z-* and *j-* respectively is regular.

may in some cases be simply due to the fact that the prefix in question never existed.

However, in several cases at least, this might be due to the application of Coblin's law. In the following examples, we find Tibetan words whose Japhug equivalent has a *qa-* or *ɤ-* prefix:

Table 6: Application of Coblin's law in animal names

Tibetan	Meaning	Japhug	Meaning
<i>ⁿp^har</i>	dhole	<i>qa-par</i>	id.
<i>sbrul</i>	snake	<i>qa-pri</i>	id.
<i>ⁿbroŋ</i>	wild yak	<i>ɤ-mbroŋ</i>	id.

The first two are cognates, while the third one is obviously borrowed from Tibetan into Japhug (Tibetan *-oŋ* corresponds to Japhug *-o* in the inherited layer, as in *mt^hoŋ* 'to see', Japhug *mto*). All three Tibetan words have a CC₁ onset: adding another consonant would be impossible. According to Coblin's law, if the proto-forms had been *GV-mp^har, *GV-sbrul and *GV-mbroŋ, the *g-* would have been deleted without trace. Therefore, it is possible that the velar or uvular animal prefix had been present in these etyma.

The case of *ɤmbroŋ* 'wild yak' in Japhug is particularly interesting. It can be interpreted in two ways. First, one could consider that Japhug has borrowed the word from an archaic form of Tibetan that did not undergo Coblin's law. Alternatively, Japhug could have created this form by adding the animal prefix *qa-*; this would be the only example of productivity of this prefix in the Japhug language, and perhaps in the Sino-Tibetan family as a whole.

3.2 Body parts

The "body part" and "kinship terms" dental prefix in Sino-Tibetan languages has been mentioned by several authors (e.g. Matisoff 2003:140-141).

Unlike the "animal prefix", this prefix has a clear grammatical function. In the morphologically conservative Rgyalrong languages, such as Tshobdun (Sun 2003) and Japhug (Jacques 2008:47), both kinship terms and body parts have indefinite possessor *tu-* (or *tr-*) prefixes used with inalienably possessed nouns, which are replaced by personal possessive prefixes when the possessor is definite:

- (1) *tu-jak* 'a hand'
 a-jak 'my hand'
 u-jak 'his hand'

In Tibetan, traces of this indefinite possessor as *d-/g-* commonly appear with body parts and kinship terms, such as *d-puŋ* ‘shoulder’, *g-zanŋ* ‘anus’ etc. Some of these have external cognates (group 1 in Table 6). At the same time, an important proportion of body part terms do not have traces of such a prefix in Tibetan, unlike the cognate forms in Japhug, and we can classify them into two groups, 2 and 3, as shown in the following table:

Table 7: Cognate body part terms between Tibetan and Japhug

Group	Tibetan	Meaning	Japhug	Meaning
1	<i>dm̥ig</i>	‘eye’	<i>tuu-mɲaɤ</i>	id.
	<i>dp̥i</i>	‘hip bone’	<i>tuu-ɣpyi</i>	‘thigh’
2	<i>rɲil</i>	‘gums’	<i>tuu-rni</i>	id.
	<i>ske</i>	‘neck’	<i>tuu-mke</i>	id.
	<i>mgo</i>	‘head’	<i>tuu-ku</i>	id.
	<i>rna</i>	‘ear’	<i>tuu-rna</i>	id.
	<i>sna</i>	‘nose’	<i>tuu-ɛna</i>	id.
	<i>snabs</i>	‘snot’	<i>tuu-ɛnaβ</i>	id.
	<i>mtɛ^{hin}</i>	‘liver’	<i>tuu-mts^{hi}</i>	id.
3	<i>lag.pa</i>	‘hand’	<i>tuu-jaɤ</i>	id.
	<i>p^hrag.pa</i>	‘shoulder’	<i>tuu-rpaɤ</i>	id.
	<i>p^ho.ba</i>	‘stomach’	<i>tuu-pu</i>	‘intestine’

Group 3 words present no trace of the **d-* prefix, though in principle forms such as **ldag*, **dprag* and **dpo* could have been expected. In the case of group 2 words however, we have complex clusters that would not allow an additional prefix to surface due to Coblin’s law. If for instance *sna* ‘nose’ had been **DV-sna* in pre-Tibetan as in Japhug *tuu-sna*, the **DV-* would have disappeared. These nouns are therefore potential examples of Coblin’s law.

3.3 Nominal forms

A widespread nominalization prefix in Sino-Tibetan is the velar prefix; Konnerth (2012) found traces of it in many languages of North-East India, and it is still extremely productive in languages such as Limbu (Kiranti) and in all Rgyalrong languages (see in particular Sun 2003, Jacques 2008).

Examples in the following list show *g-/d-* prefixes which appear to have a nominalizing function, often in combination with the nominalizing suffixes *-s*, *-d* and *-n*:

Table 8: Examples of the nominalizing *g-/d-* prefix in Tibetan

Verb/Adjective	Meaning	Derived Noun	Meaning
<i>nag(-po)</i>	'black'	<i>gnag</i>	'black ox'
<i>ŋu, ŋus</i>	'to cry'	<i>dŋud</i>	'a sob'
<i>ŋan</i>	'evil'	<i>dŋan</i>	'evil magic'
<i>ⁿk^hijl</i>	'to flow together, to whirl'	<i>dk^hil</i>	'center'
<i>blu, blus</i>	'to redeem'	<i>glud</i>	'ransom'
<i>ⁿp^huŋ, p^huŋ</i>	'to be gathered'	<i>dpuŋ-po</i>	'heap'
<i>glon (ldon), blan</i>	'to answer'	<i>klan</i>	'answer'
<i>jo</i>	'oblique, twisted, deceitful'	<i>gjo</i>	'deceit'
<i>ne</i>	'near'	<i>gⁿen</i>	'kin'
<i>no</i>	'buy'	<i>gnod</i>	'price'
<i>maŋ(-po)</i>	'many'	<i>dmaŋs</i>	'people'

In some cases, it is not clear whether a particular form is a nominalizing prefix or some other prefix; for instance, in the kinship term *gteuŋ* 'younger sibling' derived from the stative verb *te^huŋ* 'to be small', the *g-* could be either a *gV- nominalization ('the small one') or the kinship term *dV- (see §3.2).

There are also cases where only the derived noun is preserved, yet the verb is lost. This is the case in particular of *gzob* 'burning smell', unmotivated in Tibetan but obviously cognate to Japhug *yndzɿβ* 'fire (accident)', an irregular nominal form of *ndzɿβ* 'to burn (intr.)', itself the anticausative of *teɿβ* 'burn (tr.)'.

As in the two previous categories, in the case of verb roots with complex onset, Coblin's law would have deleted the nominalizing prefix. Thus, a noun such as *ltas* 'omen' derived from *lta* 'to see' could in principle have been *gV-lta-s in pre-Tibetan: there is no way of knowing whether a velar prefix has been present.

4. An extension of Coblin's law

In the preceding section, we have shown potential cases where Coblin's law could have applied outside of the verbal system. Now, we would like to propose an extension (a fourth rule) for this law.

A common misconception in Sino-Tibetan studies is that Tibetan had a 'intransitive' or 'middle' *m-* prefix (Wolfenden 1929:39, Matisoff 2003:117). Scholars usually cite examples such as *mgu* 'rejoice', *mnal* 'sleep' etc, which are stative and present an onset cluster beginning in *m-*. However, this is not proof that *m-* is prefixal in these verbs; it could be part of the root. The only pair of verbs for which *m-* appears to have a derivational function is the following:

- (2) *mnam* ‘emit a smell’
snom, bsnam ‘to smell (vt)’

The transitive form obviously contains the causative prefix *s-*, while the intransitive one has an onset in *m-*. One could conclude from this that the root is [nam], and that *m-* is prefixal in this example.

However, if we compare Tibetan to other languages, we see that this analysis is unsubstantiated. In Japhug, the following cognate forms are found:

- (3) *mnɣm* ‘to emit a smell (vi)’
nɣ-mnɣm ‘to smell sth (vt)’
ɛu-mnɣm ‘to cause sth to have a smell (vt)’

It is clear that all three verbs have a common root *mnɣm*. *ɛu-* is an irregular causative allomorph of *su-*, while *nɣ-* is a *tropative* prefix, used to derive transitive verbs out of stative ones, with the meaning ‘to consider as’ (on the tropative derivation, see Jacques 2012c).

Having a cluster *mn-* in the basic root is not a Japhug idiosyncrasy. In Jingpo, we find a similar situation (Xu et al. 1983):

- (4) *mǎ-nam*³³ ‘to have a smell’
*mǎ-nam*⁵⁵ ‘to smell (tr.)’

While the origin of the tone alternation in Jingpo is unclear (Jingpo still preserves the causative prefix as a distinct syllable), the agreement between Japhug and Jingpo is striking: the *m-* element is not related to transitivity. Rather, it is a part of the verbal root.

This implies that the root of the Tibetan verb *snom, bsnam* ‘to smell (vt)’ is [mnam], not [nam], and that the corresponding intransitive verb *mnam* is simply unprefixal. Since the cluster *smn- is not allowed in Tibetan, we can propose the following extension to Coblin’s law:

- (5) *sNC₁ > sC₁

In other words, within an initial consonant cluster, a nasal element (whether *m-* or homorganic nasal archiphoneme) is deleted when it occurs between *s-* and another consonant. This rule differs from Coblin’s three rules in that the deleted consonant is not the leftmost element of a cluster, and is not necessarily a prefix.

By application of (5), *smn- was simplified to *sn-*. Note that in this verb the causative *s-* is used in a tropative sense: *snom*, *bsnams* does not mean 'to cause to have a smell' like its Japhug equivalent. Such uses of the causative are attested in Japhug, in examples such as *nxja* 'to be a shame (vi)' > *z-nxja* 'to regret, to find sth a shame (vt)'.

The verb *snom*, *bsnams* is not the only example of (5). A clear pair of verbs showing the same pattern is **brel* 'to be connected' > *sbrel* 'to connect (vt)'.

Outside of the verbal system, examples of rule (5) can be found. For instance, the noun *sbrul* 'snake' < *smbrul < *smrul (cf. Burmese *mrwe'*) first developed an epenthetic stop between the nasal and the medial *-r-* (Simon's law), and then lost the nasal by rule (5).

5. Conclusion

In this study, we have shown that Coblin's (1976) law constitutes a basis for further research in the historical phonology and morphology of Old Tibetan in a comparative perspective. Its range of application goes largely beyond the verbal system, where it was originally discovered. Any attempt at classifying the Tibetan lexicon and meaningfully comparing Tibetan to other languages must take it into account.

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淺談「科蔚南定律」

向柏霖

CNRS-EHESS-CRLAO

科蔚南定律是藏語歷史語音學最重要的語音定律之一，用該定律可以解釋動詞系統中的許多輔音交替。本文進一步論證，認為名詞系統中也可以找出該定律的痕跡，並指出複輔音簡化的另一種案例： $*sNC- > sC-$ ，這個案例可以視為科蔚南定律的一種延伸。

關鍵詞：藏語，音系，構詞法，異化，複輔音簡化

Tibeto-Burman *dz- > Tibetan z- and Related Proposals

Nathan W. Hill

School of Oriental and African Studies, University of London

Conrady, Li and others have noticed the Tibetan sound changes *ḥz > ḥdz and *ḥz > ḥj, but there is also evidence for the changes *dz > z and *j > ẓ (first noted by Schiefner). After presenting the evidence for *dz > z and *j > ẓ respectively, this paper considers the other origins of ẓ, namely *l̥ and *r̥. Finally, an attempt is made to establish the relative chronology of the changes proposed.

Key words: Tibetan phonology, sound change, affricates, fricatives

1. Introduction

A paper of W. South Coblin's from 1976 stands as the seminal contribution to the study of Tibetan verbal morphology. The decades since his treatment have seen only a few minor suggestions for revision (cf. Beckwith 1996, Hill 2010:xv-xxi, Jacques 2012). In gratitude to Coblin's work on the Tibetan verb and his contribution to Tibeto-Burman comparative linguistics more generally, I here offer one such adjustment to the sound laws proposed in his study.¹

2. Tibeto-Burman *dz- > Tibetan z-

Taking note of a Tibetan verb paradigm such as ḥdzin (present), bzun (past), gzuñ (future), zun̄s (imperative) 'take',² Li Fang-Kuei proposed that ḥ- when proceeding a

¹ Coblin has published three philological studies of Old Tibetan texts (1990, 1991b), including the most comprehensive and authoritative work on Old Tibetan inscriptions (Li & Coblin 1987). He has undertaken three lexical studies of Old Tibetan words (1987, 1991a, 1994), and a number of studies on the use of the Tibetan alphabet to transcribe Tang dynasty Chinese (1995, 2002, 2006, 2009).

² I transliterate the Tibetan alphabet as follows: *k, kh, g, ṅ, č, čh, j, ñ, t, th, d, n, p, ph, m, b, ts, tsh, dz, w, ẓ, z, ḥ, y, r, l, ś, s, h*. For Burmese I follow the Library of Congress system, with the exception that I use *h* to mark the visarga. I take reconstructions of Old Chinese from the charts made available by William Baxter and Laurent Sagart on the homepage of the Centre de recherches linguistiques sur l'Asie orientale.

fricative, lateral, or rhotic, gave rise to an epenthetic dental stop (Li 1933:149). August Conrady also assumed this sound change, without explicit discussion (Conrady 1896:59). I have previously referred to this change as ‘Li’s first law’, but rather than crediting two laws to Li (as in Hill 2011:446-447), it is more elegant to amend ‘Li’s first law’ to ‘Conrady’s law’ and ‘Li’s second law’ to simply ‘Li’s law’.

- **hs-* > *hts-*, e.g. √so ‘nourish’, present **hso* > *htsho*
- **hs-* > *hč-* (= *htś*), e.g. √śad ‘explain’, present **hśad* > *hčhad*
- **hz-* > *hdz-*, e.g. √zug ‘plant’, present **hzug* > *hdzugs*
- **hź-* > *hj-* (= *hdź*), e.g. √žo ‘milk’, present **hžo* > *hjo*
- **hr-* > *hdr-*, e.g. √ri ‘write’, present **hri* > *hdri*³

The inherent plausibility of this suggestion is such that R. K. Sprigg independently came upon exactly the same analysis (1970).⁴ Making use of this and other laws Coblin reconstructs the history of the paradigm *hđzin*, *bzuñ*, *gzuñ*, *zuñs* ‘take’ as follows (1976:58):

- **hzuñd*, *bzuñ*, **d-zuñ*, *zuñs*
- **hziñd*, *bzuñ*, **d-zuñ*, *zuñs* (*u* > *i*)
- **hziñd*, *bzuñ*, **d-zuñ*, *zuñs* (-*ñd* > *nd*)
- **hziñd*, *bzuñ*, *gzuñ*, *zuñs* (*d-* > *g-*)
- hđziñd*, *bzuñ*, *gzuñ*, *zuñs* (Conrady’s law)

If the formulation of the sound change **hz-* > *hdz-* is correct, one would expect the Tibeto-Burman cognates of Tibetan words with initial *z-* also to begin with *z-*; instead, they generally begin with *dz-* or *ts-*.

- Tib. *za* ‘eat’ : Bur. *cāh* ‘eat’ cf. Loloish **dza*² (Bradley 1979:354-355, #629), Japhug Rgy. *ndza* ‘eat’,⁵ Ch. 咀 *dzjoX* < **dza*? (0046u) ‘eat’
- Tib. *zam* ‘bridge’ : Lahu *co*, ‘bridge’ < Loloish **dzam*¹ (Bradley 1979:330-331, #393),⁶ Japhug Rgy. *ndzom* ‘bridge’

³ On the paradigm of this verb see Hill (2005).

⁴ Such instances of epenthesis are far from unknown in the world’s languages (e.g. Old English *thunor* > English *thunder*).

⁵ To save space lists employ the following abbreviations of language names: Burmese (Bur.), Old Burmese (OBur.), Chinese (Ch.), Kurtöp (Kur.), Rgyalrong (Rgy.), Tibetan (Tib.).

⁶ Matisoff cites a Burmese word *cam* ‘bridge’ (2003:253), but I am unable to confirm this word in Judson (1893) or Myanmar Language Commission (1993).

Tib. *zin-cha* ‘quarrel, dispute’ : Bur. *cac* ‘war, battle’, Ch. 爭 *tsreang* < *m-ts^sreŋ (0811a) ‘strife, quarrel’

Tib. *zin* ‘be consumed’ : Ch. 盡 *dzinX* < *Cə.dzinʔ (0381a) ‘exhaust (v.)’

Tib. *zil* ‘dew’ : Bur. *chīḥ* ‘dew’ < Lolo-Burmese *ʔ-dziʔ (Matisoff 2003:187)

Tib. *ḥdzug*, *btsug*, *gzug*, *tshug* ‘plant’ : Bur. *cuik* ‘erect, set upright, plant’ (Matisoff 2003:362, 529)

Tib. *ḥdzud*, *btsud*, *gzud*, *tshud* ‘insert’ : Jingpho *džút* ‘be pierced’ (Matisoff 2003: 529)

In addition to this comparative evidence, Tibetan internal considerations weigh in favour of *dz- > z-. Although plenty of Tibetan words begin with *tsh-*, essentially no Tibetan word begins with *dz-*. This asymmetrical distribution suggests that there may have once been words that began with *dz, in which this initial subsequently changed into another sound. Tibetan *zoñ* ‘merchandise’ is such a word; it is self evidently related to the verb $\sqrt{\text{tsoñ}}$ (*ḥtshoñ*, *btsoñs*, *btsoñ*, *tshoñs*) ‘sell’. If *zoñ* derives regularly from *dzoñ the relationship between these two words is that of voicing alternation. Without the law *dz > z the relationship is more difficult to account for.

In light of such evidence it would be preferable to analyze the root of *ḥdzin*, *bzuñ*, *gzuñ*, *zuñs* ‘take’ as $\sqrt{\text{dzuñ}}$ rather than $\sqrt{\text{zuñ}}$. A look at the paradigm of another verb suggests a strategy for proposing such an analysis. Again following a proposal of Li’s (1933:146, §15), Coblin reconstructs the future of *ḥdzug*, *btsug*, *gzug*, *tshugs* ‘plant’ as *gdzug. In a more general discussion of lenition in Tibetan, Anton Schiefner earlier offered this same explanation for the derivation of future stems in voice alternating verbs (1852:364). The sound law *gdz- > gz- may be invoked in the analysis of *ḥdzin*, *bzuñ*, *gzuñ*, *zuñs* ‘take’, yielding the future stem *gdzuñ. The imperative is arrived at through the law that Anlaut *dz-* becomes *z-*, as the comparative data presented above suggests (i.e. *dzuñs > *zuñs*). In order to account for the past stem the parallel law *bdz- > *bz-* becomes necessary. Comparative data also support *gdz > gz- and *bdz > bz-.

Tib. *gzan* ‘to wear out, hurt, waste’ : Ch. 殘 *dzan* < *dz^san (0155c) ‘injure, remnant’

Tib. *gzig* ‘leopard’ : Rgy. *kəŋfəḱ* ‘leopard’ (Matisoff 2003:135)

Tib. *gzim* ‘sleep’ : Ch. 寢 *tshimX* < *ts^himʔ (0661f) ‘sleep’

Tib. *bzañ* ‘good’ : Ch. 臧 *tsang* < *ts^saŋ (0727f) ‘good’

A Tibetan translation of the the *Léngqié shīzī jì* (楞伽師資記) discovered in Dunhuang cites the *Guān pǔxián púsà xíngfǎ jīng* (觀普賢菩薩行法經) under the title *Ḥdzañs-khyab-gyi brtag-paḥi chos-gyi yi-ge*, in which the deity Samantabhadra (普賢 pǔxián) is referred to as *Ḥdzañs-khyab* rather than the expected *Kun-tu-bzañ-po* (IOL Tib J 710,

f. 52, l. 4, cf. *Ḥdri guñ skyabs mgon che tshañ* 2010:99). The equation of *Ḥdzañs-khyab* and *Kun-tu-bzañ-po* makes clear that *ḥdzañs* renders the word *bzañ* ‘good’; this variation between *ḥdz-* and *bz-*, encountered outside the verbal system, helps to reinforce the conviction that an affricate is original in this word, as the Chinese cognate confirms.

The sound change **dz- > z-* elucidates a number of points discussed in other scholars’ work in Tibeto-Burman linguistics. James Matisoff (2003:588) reconstructs **(d)zil* ‘dew’ in Tibeto-Burman in order to account for Tibetan *zil* ‘dew’ and Lolo-Burmese **ʔ-dzi²*. He appears to regard the loss of *-l* in Lolo-Burmese as regular sound change, but to regard the variation between **dz-* and **z-* as ‘allofamic’. This example shows the danger of positing such variation; Matisoff has mistaken regular sound change for proto-variation. The Tibetan sound change **dz > z-* also clarifies some issues in the reconstruction of Old Chinese. Writing about the Chinese word 爭 *tsreang* < **m-tsʰreŋ* (0811a) ‘strife, quarrel’, on the basis of Tibetan *ziñ-cha* ‘quarrel, dispute’ and *ḥdziñ* ‘to quarrel, contend, fight’, and (citing Li 1933:148) Zev Handel suggests

the Tibetan root appears to be *ziñ*, with the affricate of *ḥdziñ* arising under the influence of the prefix *ḥ-*. ... Assuming that the Chinese and W[ritten]T[ibetan] forms are cognate, it seems possible that the original Chinese stem is **siŋ*, with affrication to **tsiŋ* under the influence of a prefix *r-*” (2009:199 bold in original, Tibetan transcription adjusted).

In fact the Tibetan root is *√dziñ*, directly comparable to Chinese 爭 *tsreang* < **m-tsʰreŋ* (0811a) ‘strife, quarrel’, without further need to reconstruct a Chinese prefixed form **r-s-*. In a similar case, Axel Schuessler proposes the Old Chinese consonant cluster **k-s-* (changing to Middle Chinese *tsʰ-*), based on such comparisons as Tibetan *gzim* ‘sleep’ and Old Chinese 寢 *tshimX* < **k-simʔ* (0661f) ‘sleep’, both deriving from Tibeto-Burman **k-zim* (2002:158). In this case also, there is no need to amend the Chinese reconstruction; as Walter Simon realized (1929:179, no.263), it is Tibetan which has innovated, changing **gdzim* to *gzim*. These three examples from the work of Matisoff, Handel, and Schuessler demonstrate the widespread implications the suggestion **dz- > z-* may have in Tibeto-Burman linguistics.

3. Tibeto-Burman **ǰ-* > Tibetan *ǰ-*

On the grounds of symmetry it would be convenient to propose a sound change of **ǰ-* to *ǰ-*. Coblin follows Simon (1929:30) and Li (1933:144) in proposing the changes **gǰ- > gǰ-* and **bǰ- > bǰ-* in order to account for a verb such as *ḥǰib*, *bǰibs* < **bǰibs*, *gǰib*

< *gǵib, *jibs* ‘suck’ (Coblin 1976:49). The Anlaut *j̥-* in the imperative of this verb is what leads Coblin to see it as part of the stem. There is however disagreement among lexicons as to whether the imperative should be *jibs* or *h̥jibs* (Hill 2010:96-97). Given the overall rarity of Tibetan words beginning with *j̥-*, *jibs* is probably not correct.⁷ Just as the connection of the word *zoñ* ‘merchandise’ with *√tsoñ* ‘sell’ (*htshoñ*, *btsoñs*, *btsoñ*, *tshoñs*) ‘sell’ suggested the change *dz > z-, the connection of the noun *žal-ce* ‘suite’ with the verb *√jal/čal* ‘weigh, asses, judge’ (*h̥jal*, *bčald*, *gžal*, *čhold*) (Dotson 2007:35 note 39), argues in favour of a change *j̥ > ž-. In addition, the spelling of the word *khul-žo* ‘crib’ as *khu-l̥jo* in the *Old Tibetan Chronicle* (PT 1287 line 43) also supports *j̥ > ž-.

The sound change *j̥ > ž clarifies the inflection of verbs which have an imperative with Anlaut ž-, such as *√jog* ‘cut, hew’ (*h̥jog*, *bžogs* < *bjogs, *gžog* < *g̥jog, *žog* < *jog). Coblin, invoking Conrady’s law, instead suggests that the root is *√žog* and the present stem *h̥jog* may be reconstructed *h̥žog (1976:68). But, having accepted the validity of the changes *dz > z and *j̥ > ž (hereafter referred to together as ‘Schiefner’s law’), it is tempting to speculate that at one point in Tibetan pre-history no roots began with z- or ž-.

4. Three origins of ž

Although for some words ž- < *j̥-, Old Tibetan ž- also has other origins. The source of ž- to have received most attention is *li- (Benedict’s law, cf. Benedict 1939:215, Hill 2011:445). The following examples present the evidence for the change *li > ž-.

Tib. *bži* < *bli ‘four’ : OBur. *liy* ‘four’, Chi. 四 *sijH* < *s.li[j]-s (0518a) ‘four’

Tib. *žin* < *liñ ‘field’ : Bur. *lay* ‘field’, Chi. 田 *den* < *l̥iŋ (0362a) ‘field’

Tib. *žo* < *li ‘yoghurt’ : Japhug Rgy. *tr-lu* ‘milk’

Tib. *gži* < *gli ‘ground’ : OBur. *mliy* ‘ground’, Chi. 地 *dijH* < *l̥ej-s (0004b) ‘ground’

Tib. *gžu* < *gli⁸ ‘bow’ : OBur. *liy* ‘bow’, Chi. 矢 *syijX* < *liŋ? (0560a) ‘arrow’

There are also grounds internal to Tibetan for such a reconstruction (Gong 2002[1977]: 391-392).

⁷ Perhaps the most common such word is *jo-bo* ‘lord’, however three pieces of evidence demonstrate that originally this word was *rjo-bo*. First, it is spelled thus in PT 1287, ll. 28-29. Second, no words begin *rjo-* in Classical Tibetan. Third, this word is quite clearly related to *rje* ‘chief’, which confirms the cluster *rj̥-*.

⁸ The word is spelled *gži* in an Old Tibetan version of the Rama story (IOL Tib J 0737/1 line 168, cf. de Jong 1989:115).

Tib. *gʒogs* < *gliogs ‘side of the body’ : Tib. *logs* ‘side’
 Tib. *bʒen* < *blien ‘rise’ : Tib. *lan* ‘rise’

On the basis of the comparison of Tibetan *ʒag* ‘day’ with Chinese 夜 *yaeH* < *N.rak-s (0800j) and Old Burmese *ryak* ‘day’ it is further possible to posit *rɿ- as an origin of Tibetan *ʒ-*.⁹ Since Tibetan *ʒ-* has three potential reconstructions, as a working hypothesis it is judicious to assume that all examples of Tibetan *ʒ-* are innovative and that Tibeto-Burman should not be reconstructed with *ʒ-*. Whether *z-* similarly has lateral and rhotic origins in addition to *dz- remains to be seen.

5. Relative chronology of sound changes

Conrady’s law suggests that *hɿ > hɿdz- and *hɿʒ > hɿʒ-. But, there is also substantial evidence for Scheifner’s law, namely *dz- > z- and *j- > ʒ-. Two strategies are available to reconcile the evidence for both Conrady’s and Scheifner’s laws. First, one could reject the proposals *hɿz- > hɿdz- and *hɿʒ- > hɿʒ-. Such a revision of Conrady’s law however would not be elegant; it is odd to accept the changes *hɿs- > hɿtsh- and *hɿś- > hɿčh- but reject the changes *hɿz > hɿdz- and *hɿʒ > hɿʒ-. Also, one would have to suppose that hɿ- somehow blocked the softening of voiced affricates. Rather than the unconditioned changes *dz > z- and *j > ʒ-, it becomes necessary to specify the conditioned changes *#dz-, *gdz-, *bdz- > #z-, gz-, bz- and *#j-, *gǰ-, *bj- > #ʒ-, gʒ-, bʒ- (where # indicates a word break). Second, instead of rejecting *hɿz- > hɿdz- and *hɿʒ- > hɿʒ-, one may suggest that Li’s law occurred after Schiefner’s law had already completed. This explanation does lead to the inelegance of sound changes being directly undone, viz. *hɿdz- > *hɿz- > hɿdz-, *hɿj- > *hɿʒ- > hɿʒ-. Fortunately, there is independent evidence to suggest that the second explanation, i.e. that Li’s law applied after Schiefner’s law, is correct.

The following comparisons between Tibetan and Kurtöp make clear that the change *dz > z- had occurred already in the language, proto-Bodish, which is the ancestor of these two languages.

Tib. *za* ‘eat’ : Kur. *zù* ‘eat’ (Hyslop 2011:56)
 Tib. *zui* ‘pair’ : Kur. *zòn* ‘two’ (Hyslop 2011:58)
 Tib. *zam* ‘bridge’ : Kur. *zàm* ‘bridge’ (Hyslop 2011:152)
 Tib. *zur* ‘corner’ : Kur. *zur* ‘edge’ (Hyslop 2011:283)

In contrast, as Michailovsky and Mazaudon point out that the change *lɿ- > ʒ- had not

⁹ Although he accepts these comparisons, Jacques rejects this proposal (2013:296-297).

yet occurred in proto-Bodish (1994:553).

Tib. *žin* ‘field’ : Kur. *^Lleŋ* ‘field’ (Michailovsky & Mazaudon 1994:553)

Tib. *žim* ‘tasty’ : Kur. *^Llembu* ‘tasty’ (Michailovsky & Mazaudon 1994:553, cf. Hyslop 2011:531)

Tib. *bži* ‘four’ : Kur. *ble* ‘four’ (Michailovsky & Mazaudon 1994:553, cf. Hyslop 2011:53)

Tib. *gžu* ‘bow (n.)’ : Kur. *^Llimi?* ‘bow (n.)’ (Michailovsky & Mazaudon 1994:553, cf. Hyslop 2011:42)

Since Japhug Rgyalroñ *tr-lu* ‘milk’ confirms that Tibetan *žo* ‘yoghurt’ should be reconstructed **li*o (Jacques 2008:128), the change **hž-* > *hǰ-* must have occurred after the change **li* > *ž-* in order for the present stem of the verb ‘to milk’ (*hǰo*, *bžos*, *bžo*, *žos*) to turn out correctly, i.e. Li’s law (**hž-* > *hǰ-*) took place after Benedict’s law (**li-* > *ž-*). The effected sound changes must be ordered as follows: 1. Schiefner’s law, 2. Benedict’s law, 3. Conrady’s law.¹⁰

Reconsidering the verb *hǰog*, *bžogs*, *gžog*, *žog* ‘hew’ it becomes clear that both analysis in terms of the root *√jog* and analysis in terms of the root *√žog* are valid, but refer to different moments in history.

**hǰog*, **bǰogs*, **gǰog*, **jog*

**hžog*, *bžogs*, *gžog*, *žog* (Schiefner’s law)

hǰog, *bžogs*, *gžog*, *žog* (Conrady’s law)

Similarly reconsidering the verb *hǰzin*, *bzuñ*, *gzuñ*, *zuñs* ‘take’ both analysis in terms of the root *√dzuñ* and in terms of the root *√zuñ* are valid for different moments in history.

**h-dzuñd*, **b-dzuñ*, **d-dzuñ*, **dzuñs*

**hzuñd*, *bzuñ*, **d-zuñ*, *zuñs* (Schiefner’s law)

**hziñd*, *bzuñ*, **d-zuñ*, *zuñs* (*u* > *i*)

**hziñd*, *bzuñ*, **d-zuñ*, *zuñs* (*-ñd* > *nd*)

**hziñd*, *bzuñ*, *gzuñ*, *zuñs* (*d-* > *g-*)

hǰziñd, *bzuñ*, *gzuñ*, *zuñs* (Conrady’s law)

¹⁰ While this article was in press, I came to decide that the order is in fact 1. Schiefner’s law, 2. Conrady’s law, 3. Benedict’s law, and that *hǰo*, the present stem of the verb ‘to milk’, is an analogical development (cf. Hill 2013).

One should bear in mind however that the prefixes *h-*, *b-* and *g-* may not have come into vogue until after Schiefner's law took place.

A fresh look at the verb *hdzug*, *btsug*, *gzug*, *tshugs* 'plant' draws attention to the fact that voicing alternation was already a part of the Tibetan verbal system before Schiefner's law occurred.

*h-dzug, *b-tsug, *d-dzug, *tsugs
 *h-zug, *btsug*, *d-zug, *tshugs*¹¹ (Schiefner's law)
 *h-zug, *btsug*, *gzug*, *tshugs* (*d-* > *g-*)
hdzug, *btsug*, *gzug*, *tshugs* (Conrady's law)

Voicing alternation in the Tibetan verbal system is quite old.

6. Conclusion

The investigation conducted here permits several conclusions about the history of the Tibetan verbal system. Voicing alternation was a feature of the verbal system from very ancient times. Before the breakup of proto-Bodish voiced affricates softened to their corresponding fricatives (*dz > z- and *j- > ʒ-, i.e. Schiefner's law). Subsequent to the break up of proto-Bodish further examples of ʒ- sprang from the palatalization of laterals (Benedict's law *l̥- > ʒ-). Even later, epenthetic dentals appeared between *h-* on the one hand and fricatives, rhotics, and laterals¹² on the other hand (Conrady's law). Tibetan as attested in the earliest records has both the voiced affricates *dz-* and *j-* and the voiced fricatives *z-* and *ʒ-*; they are nearly in complementary distribution (with the affricates after *r-* and *h-* and the fricatives elsewhere). An earlier unattested stage of the language would have had voiced fricatives and no voiced affricates. In a yet older stage of the language this situation was reversed with no voiced fricatives but only voiced affricates.

¹¹ Aspiration is not phonemic in Old Tibetan. Aspirates appear in Anlaut position and non-aspirates appear in other syllable positions (cf. Hill 2007).

¹² In the case of laterals subsequent metathesis and loss of *h-* has obscured this change (i.e. *hl- > *hld- > *hld- > *ld-*), as one sees in a paradigm such as *ldog*, *logs* 'reverse' (cf. Li 1933:149).

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從藏緬語族中的 *dz- 到藏語中的 z-： 關於此音變的幾點建議

內藤丘

倫敦大學亞非學院

孔好古和李方桂曾提出藏語發音中存在的轉變 *ḥz > ḥdz 以及 *ḥz > ḥj̃，但是也有證據表明存在另一音變 *dz > z 以及 *j > ẓ。本文首先分別列舉出有關 *dz > z 和 *j > ẓ 的證據，其次探討了 ẓ 的其他來源，即 *ḷ 或 *r̥。最後，本文嘗試構擬出一個有關音變發生的相對年表。

關鍵詞：藏語音韻學，音變，塞擦音，摩擦音

A Note on Tibeto-Burman Bone Words and Chinese Pitch-pipes

Laurent Sagart
CRLAO

This paper proposes an explanation to the observation that the Chinese names for odd- and even-numbered pitch-pipes exhibit sound correspondences with bone-related terms in other Sino-Tibetan languages.

Key words: Sino-Tibetan, reconstruction, lexicon, music, material culture

Professor South Coblin's *A Sinologist's Handlist of Sino-Tibetan Lexical Comparisons* (1986) is a rare attempt at working out the sound correspondences between Old Chinese and Written Tibetan, Sino-Tibetan's oldest literary languages, and reconstructing the parent language by the comparative method. In characteristically quiet style, it displays Professor Coblin's deep knowledge of Old Chinese and Tibetan. The lexical comparisons there, all with full sound correspondences and reasonable semantics, are either original or gleaned from the literature, like the following, from Bodman (1980:165) or an earlier source: Old Chinese 呂 *[r]a?¹ 'spine' (reconstructed by Coblin as *gljay), Written Tibetan *gra*. For the Tibetan word, Coblin gives this gloss: "the awn, bristles or the ear of cereals (which often have a symmetrical arrangement); the bones or skeleton of a fish (which has the appearance of layered symmetrical bristles); a lattice, trellis, frame". He adds: "*cf.* nya-gra 'fish bones'". The Chinese gloss is based on the *Shuōwén Jiězì* definition 呂, 脊骨也 '呂 means spine'. This comparison is in all likelihood valid, as the semantics match well and the forms are relatable through sound correspondences. Interestingly, the Chinese word 呂 *[r]a? has another meaning, at first sight unrelated to the first: 'an even-numbered pitch-pipe in a set of twelve'.²

¹ Unless otherwise mentioned, Old Chinese reconstructions in this paper use the Baxter-Sagart system (Baxter & Sagart, forthcoming).

² I am grateful to an anonymous reviewer for pointing out that the character 呂 is not attested in the meaning 'spine' until the *Shuōwén Jiězì*: earlier 'spine' is written by means of the homophone 旅 *[r]a? or its graphic variant 輦. The main meaning of 呂 in pre-Hàn times is music-related.

In early China, pitch-pipes gave fixed frequencies serving as basic tonalities for music played by several instruments. Pitch-pipes came in sets of twelve tubes of different lengths and diameters, resonating at different frequencies. In some sources there was only one list of twelve; in others, there were two complementary series of six: a basic series, whose binomial names varied regionally; and a modified set, each a semitone lower than the corresponding basic tube. The pitches in the modified series either bore the same binomial name as the basic ones prefixed with 濁 ‘muddy’, or they bore different binomial names. In sources where there was only one series of twelve, the pitch-pipes were called 律 *lǜ* < *lwit* < *[r]ut. Where two series were distinguished, the basic pipes were called 律 *lǜ* < *lwit* < *[r]ut and the modified ones 呂 *lǚ* < *ljoX* < *[r]aʔ. Enumerations of pitch-pipe names list them as twelve pairs of basic and modified pitches. Thus even-numbered pipes were basic and odd-numbered ones belonged to the modified series (see Falkenhausen 1993 for a detailed discussion of early sources on Chinese pitch-pipes).

Another Written Tibetan bone word: *rus* ‘bone’ was included by Benedict (1972) in a Tibeto-Burman set reconstructed by him as TB **rus* ‘bone’; he compared that form to Proto-Karen **k(h)rut* ‘bone’, deriving both from a Proto-Sino-Tibetan **g-rus* ‘bone’, out of which he drew Chinese 骨 **kʰut* ‘bone’ (p.155, fn.419). To any specialist of Chinese the comparison of Tibetan *rus*, Karen **k(h)rut* ‘bone’ etc. with Chinese 骨 **kʰut* ‘bone’ is unlikely, since even with a *g-* pre-initial, Tibeto-Burman words beginning in **r-* usually correspond to Chinese words with /*r/*, and 骨 **kʰut* ‘bone’ definitely did not have an /*r/* in Old Chinese:

Table 1: Chinese comparisons for Tibeto-Burman **g-r-*

	PTB (Matisoff 2003)	Old Chinese (B-S 2.00)
indigo	<i>g-ram</i>	藍 <i>lán</i> < <i>lam</i> < *[N-k.]rʰam ‘indigo’
spine	<i>g-ra</i>	呂 <i>lǚ</i> < <i>ljoX</i> < *[r]aʔ ‘spine; pitch-pipe’
to stand	<i>g-ryap</i>	立 <i>lì</i> < <i>lip</i> < * <i>k.rəp</i> ‘stand (v.)’
horn	<i>g-run</i>	角 <i>jiǎo</i> < <i>kaewk</i> < * <i>C.[k]ʰrok</i> ‘horn, corner’
salt	<i>g-ryum</i>	鹽 <i>yán</i> < <i>yem</i> < * <i>[Gr][o]m</i> ‘salt (n.)’

The *Handlist* wisely stays clear of the comparison Written Tibetan *rus* = Old Chinese 骨 **kʰut*. In this writer’s mind, a better comparison for Old Chinese 骨 **kʰut* is with Tibeto-Burman words meaning ‘hand’: Hayu *got*, Kanauri *gud*, Lushai *kut*, etc. The meaning of the etymon in the parent Sino-Tibetan language would be ‘short bone, knuckle bone, knuckle’. For a parallel to the semantic shift from ‘knuckle’ to ‘bone in general’, cf. German *knochen* ‘bone’ (general term), earlier ‘short bone, knuckle bone’, the meaning retained in English cognate *knuckle*. Shift from ‘knuckle bone’ to ‘hand’ would take place via ‘knuckle’ and ‘finger’.

While 骨 **kʰut* is not a good phonetic match for Written Tibetan *rus* ‘bone’, it turns out that 律 *lǜ* < *lwit* < **[r]ut*, the Old Chinese word for *odd-numbered* pitch-pipes, is a perfect match! This leads to the parallel equations between Written Tibetan bone words and Old Chinese pitch-pipe names:

Table 2: Written Tibetan bone words and Old Chinese bone and pitch-pipe names

Written Tibetan	Old Chinese	
<i>gra</i> ‘bones of fish’	呂, 旅 <i>*[r]aʔ</i> ‘spine’	呂 <i>*[r]aʔ</i> ‘pitch-pipe’ (even-numbered)
<i>rus</i> ‘bone’		律 <i>*[r]ut</i> ‘pitch-pipe’ (odd-numbered)

On the Tibeto-Burman side, cognates of both Written Tibetan words co-occur in a Jingpo expression: *n-rut n-ra* ‘the ribs; the skeleton (general term)’, which parallels the Chinese collocation of 律 and 呂 as pitch-pipe names.

Bones with cylindrical cavities — long bones and vertebrae — would seem to be well-suited to manufacturing tubes or pipes in a neolithic context, as cutting bamboos to the desired length may prove difficult without metal instruments. Indeed, several 9000-8000-year old neolithic bone flutes were unearthed at Jiǎhú 賈湖, Hénán 河南, and a 7000-year old 10-hole bone flute with two series of holes from Zhōngshānzhài 中山寨, also in Hénán, was interpreted as a pitch-pipe by Xiǎo, Zhāng & Wáng (2001). It is therefore tempting to think that early Chinese pitch-pipes were made of long bones and short bones. However, the earliest archaeologically-derived Chinese pitch-pipes, from a Warring States Chǔ 楚 tomb in Húběi 湖北, are made of bamboo (Chen 1996:46; 97), and tradition on the origin of pitch-pipes reported in the *Lǚshì chūnqiū* 呂氏春秋 also associates early Chinese pitch-pipes with bamboo. There seems to be no material or textual evidence at all linking early Chinese pitch-pipes with bone. As a tentative solution to this conundrum, one may speculate that after the language that was to become Chinese individualized out of Sino-Tibetan, the Sino-Tibetan terms *#rus* and *#gra* (I am using the Written Tibetan forms preceded by the symbol ‘#’ marking a pre-reconstruction) still existed, referring to different kinds of bones or bone structures, as well as to the tubes made out of them: *#rus* for longer bones or tubes, and *#gra* for shorter ones; later on, *#rus* lost its semantic connections to bone (perhaps it lost them to the new term for ‘bone’: 骨 **kʰut*). As a result, the Chinese form 律 **[r]ut*, its reflex, could refer to bamboo pitch-pipes. Interestingly, the *Guǎngyùn* 廣韻 cites a character 筩 modern *lǜ* < MC *lwit*, a Middle Chinese homophone of 律, glossed as 竹筩, 以射鳥也 ‘a bamboo implement for shooting birds’. The *Jiyùn* 集韻 is more specific: 筩, 竹管, 以射鳥 ‘a bamboo tube used for shooting birds’. That this word is written with a completely different character from 律 argues that it is not derived out of ‘pitch-pipe’: rather, it suggests that both 筩 and 律 are from an earlier word meaning ‘tubular

object’, the missing link between the Tibetan meaning ‘bone’ and the Old Chinese meaning ‘pitch-pipe’.

As I am writing the last paragraph of this short paper, one of my own long bones is mending after a fall from bicycle. I offer it (the paper) to my old friend South Coblin as a testimony of my esteem for his work and hoping that it will amuse him on his 70th birthday.

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藏緬語有關骨頭的詞彙和中國的十二律

沙加爾

CRLAO

本文提出了十二律中的「律」和「呂」跟古藏文的 *rus* 「骨頭」和 *gra* 「魚骨」可能同源的假設。

關鍵詞：漢藏語系，構擬，詞彙，音樂，物質文化

Using Native Lexical Resources to Create Technical Neologisms for Minority Languages^{*}

James A. Matisoff

University of California, Berkeley

Several young Lahu speakers have been receiving graduate training in linguistics at Payap University in Chiang Mai, Thailand. However, the language of instruction in their linguistics courses is English or Thai, since like most other minority languages, Lahu lacks a technical vocabulary in which to discuss scientific subjects.

Faced with such a problem, languages typically resort to borrowing technical terminology from majority languages. In the case of Lahu, a language dispersed over several countries, borrowings have been flooding in from Chinese, Burmese, Shan, Northern Thai, Standard Thai, Lao, and Vietnamese. This makes it difficult to decide which languages to borrow technical terms from. It therefore seems to me that the best solution would be to invent such terms using native Lahu morphemes as much as possible.

In order to achieve this goal, I have been collaborating with a Lahu student at Payap to develop such a linguistic vocabulary. So far several hundred terms have been proposed, mostly in the realm of phonology. As this effort develops, we shall concentrate more on morphosyntactic and historical linguistic terminology. This paper discusses the issues involved in creating technical neologisms, and lists the terms so far proposed.

Key words: Lahu, neologisms, technical vocabulary, lexicography, metaphorical extensions

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1. Introduction

Twenty-three years of my life (1965-1988) were devoted largely to the compilation of my Lahu-English dictionary.¹ Whatever its merits, this dictionary has so far been of little use to the Lahu people themselves, to my increasing chagrin.² In my youthful puristic zeal, I had adopted a rigorously phonemic transcription quite different from the three preexisting romanizations of Lahu. I also thought it would be helpful to the Burmese/Thai Lahu whose language I was studying to use for my dictionary an Indic-inspired alphabetical order determined by the position of articulation of the initial consonant, proceeding from the back of the mouth to the front: that is, first the stops and nasals in the order uvulars, velars, palatals, dentals, labials; then the fricatives (from back to front), and finally the liquid. Across the bottom of each printed page were “running feet”, listing the phonemes in alphabetical order,³ first the tones (using the carrying-vowel <a>), then the vowels, then the consonants (cf. Figure 1).⁴

a á â ã ä å à? â? a i u e o ε ɔ i ə q qh k kh g ŋ c ch j t th d n p ph b m h ģ š y f v l

Figure 1: Lahu phonemes as listed in *The Dictionary of Lahu*

This has made the dictionary virtually impenetrable, even for the minority of the Lahu population that is literate in one of the missionary transcriptions or the *pīnyīn*-based system used in China.⁵ Relatively few Lahu are literate in Burmese or Thai. On the other hand, most literate Lahu in Burma and Thailand have learned the Roman alphabet in missionary schools,⁶ while Lahu children in China learn their ABC’s during their first year of schooling, since the Roman alphabet is necessary for the *pīnyīn* transcription of Chinese.

¹ See ‘History of the Lahu Dictionary project’ (Matisoff 1988:1-8).

² It has evidently been respected, if not used, by this minority of the Lahu population, as witness the fact that in the 1990’s I found it prominently displayed atop the TV set of *Cà-mó*, the best consultant during my 1970 fieldtrip, who confessed that he used it mostly to look at the plates in the back.

³ See Appendix A for the Black Lahu phonemic inventory.

⁴ Morphemes beginning with a vowel are alphabetized before all those that begin with consonants. This type of alphabetical order, loosely called *devanāgarī*, is used not only for Thai and Burmese, but also for all the other INDOSPHERIC literary languages of Southeast Asia, including Cham, Javanese, Mon, Khmer, and Tibetan, and is even reflected in Japanese *kana*.

⁵ For a discussion of the four competing transcriptions of Lahu, see Appendix B.

⁶ Lewis’ valuable dictionary (1986) lists the Lahu entries in the roman alphabetical order, each accompanied by a Thai gloss as well as an English one.

2. Whose alphabetical order?

And yet perhaps I should not be too hard on myself. The very concept of alphabetical order—ANY alphabetical order—has been impossible to convey. Realizing this, I attempted back in 1977 to compose a long introduction to the dictionary in Lahu, written in the standard Baptist transcription, justifying my own orthography and alphabetical order on linguistic grounds. Even with the patient help of *Yâ-pā-é*,⁷ the chief consultant during my 1977 fieldtrip, this enterprise quickly foundered, largely due to the lack of a meta-linguistic vocabulary, and this introduction did not make it into the published dictionary.

It was not until very recently that I saw real hope that there could be rapid progress in creating metalinguistic terminology for Lahu. At the 42nd International Conference on Sino-Tibetan Languages and Linguistics (ICSTLL) in Chiang Mai (Oct. 2009), I was delighted to meet a group of Lahu graduate students in linguistics at Payap University. One of them, a young Yellow Lahu man named Aaron Tun, known familiarly by his Burmese nickname Maung Maung ('younger brother'), expressed special interest in making the dictionary more accessible. I was deeply impressed by his zeal, and ultimately was able to invite him to spend two and a half months as a Visiting Scholar at the STEDT project in Berkeley (March 15-May 31, 2011). During his stay at Berkeley, he not only computerized all the Lahu texts I had collected during my fieldtrips to Thailand in the 1960's and '70's, but he also worked with me on creating new Lahu metalinguistic terminology. This latter task was hugely enjoyable for both of us, as the rest of the STEDT staff can attest. A nearly complete list of these terms is provided in Appendix C.

3. Native vs. borrowed morphemes in neologisms

One possible solution to the lack of technical vocabulary would be to borrow morphemes from a major literary language. After all, most technical linguistic terms in English are borrowings from Latin or Greek, while Burmese, Khmer, and Thai linguistic terminologies are largely of Pali/Sanskrit origin. Yet the geographical dispersal of the Lahu people makes the choice of donor language difficult.⁸ Should one use Burmese, Thai, or Chinese borrowings?

One advantage of using native material is the transparency of the compounds that result—unlike English terms opaque to most native speakers like *con-sonant* ('sounding

⁷ See Matisoff (1988:1257).

⁸ This dispersal is actually a good thing from the point of view of retarding endangerment of the language.

with’), *ad-ject-ive* (‘thrown next to’), *ob-ject* (‘thrown toward’), *morph-eme* (‘form + suffix’). Compare these with Maung Maung’s transparent coinages in (1a-d), below:⁹

- (1) a. *tàn-khô*
begin-sound
‘consonant’
- b. *phàʔ-tô*
reveal-word
‘adjective’
- c. *khān-pā*
undergo-NOM
‘object’
- d. *tô-hòʔ*
word-form
‘morpheme’

However, there is no reason to exclude long-standing loanwords into Lahu from Chinese, Burmese, or Tai, items such as *ḁ-ṣṣ* ‘color/phonetic value’ (< Tai); *cú-yī* ‘skill/-ology’ (< Chinese); *tɔ̃(n)* ‘segment/section’ (< Tai); *pɔ̃(n)* ‘add/put together’ (< Burmese); *hê(n)* ‘study/learn’ (< Tai); *hòʔ* ‘form/shape’ (ult. < Pali); *liʔ* ‘something written/letter’ (ult. < Pali). In fact, when appropriate I favor using the more conservative, less Lahuized, nasalized versions of these old loanwords, as a way to reduce Lahu’s severe homophony problem, for example, *tɔ̃n* ‘segment’ (as in *tô-tɔ̃n* ‘syllable’) vs. *tɔ̃* ‘boundary’ (as in *tô-tɔ̃* ‘syllable boundary’) vs. *tô* ‘word’.

Clearly the best way to use native Lahu lexical material is to coin new COMPOUNDS or COLLOCATIONS, since monosyllabic morphemes tend to be highly polysemous. As an extreme example, consider the morpheme *khô*, for which eight subsenses (2)-(9) are distinguishable, depending on the collocations in which it occurs:¹⁰

- (2) Sound; noise
 - a. *bôʔ-khô*
shoot-K
‘sound of shooting’

⁹ Gloss abbreviations: CIS = cisative particle, CLF = classifier, EXT = extensive, GEN = genitive, K = *khô*, LOC = locative, N = noun, NOM = nominalizer, Pv = verb particle, REL = relativizer, S = subject, V = verb, Vh = head verb, vV = pre-head versatile verb, Vv = post-head versatile verb.

¹⁰ See Matisoff (1988:380-383).

- b. phî-lò-khô
dog-bark-K
'sound of dogs barking'
- (3) Voice
 - khô ší ve
K hoarse NOM
'be hoarse'
- (4) Words; a stretch of speech
 - a. qa-mì-khô
sing-do-K
'song/poem'
 - b. tô-phây-khô
speech-hide-K
'riddle'
- (5) Language; variety of speech
 - a. Lâhū-khô
'Lahu language'
 - b. šu-khô
others-K
'foreign language'
- (6) Word; turn of phrase; sentence
 - a. khô tê khô
K one K
'one word/one phrase/one sentence'
 - b. khô-ŋɛ
K-short
'short form (of a compound word)'
 - c. khô-yî
K-long
'long form (of a compound)'
- (7) Words of advice
 - a. khô na ve
K listen NOM
'listen to advice'
 - b. chɔ-mô-khô
person-old-K
'wisdom of the elders/proverb/wise saying'

(8) Probable reason

yô mâ šī ve khô
 3 not know/understand REL K
 ‘It’s probably because he doesn’t understand.’

(9) Tone (of a tone language) (neologism)¹¹

4. Difficulty of the task, and indispensability of the native speaker

It is not problematic to use native Lahu NOUNS for the various vocal organs, for example:

(10) a. ð-tôʔ-lôʔ

‘palate’

b. ð-tôʔ-lôʔ hɛ ve

palate hard NOM

‘hard palate’

c. ð-tôʔ-lôʔ nû ve

palate soft NOM

‘soft palate’

(11) a. ð-šá

‘air/breath’

b. ð-šá mǝʔ ve

breath blow NOM

‘blow breath; aspirate’

(12) qá-qə-lə ‘larynx/glottis’

(13) cì ‘tooth/teeth’

(14) nā-qhô ‘nose’

(15) mǝʔ-qə ‘mouth’

(16) a. mǝ(-gì)

mouth-skin

‘lip(s)’

b. mǝ-gì-khô

‘a labial sound’

¹¹ See §5 below.

- c. m̂-gì-mèʔ-kĥ
‘labial stop’
- (17) a. ha-tē
‘tongue’
b. ha-tē-m̂
tongue-tip
‘tip of the tongue/apex’
c. ha-tē cí-n̂ʔ k̂
tongue attach place
‘tongue-root/dorsum’¹²

The seven Lahu tones are all conveniently nameable, using the simple words for ‘middle’ (ɔ̂-q̂ʔ-ji), ‘high’ (mu), ‘low’ (n̂), ‘long’ (ŷ), and ‘short’ (ɲ̂).¹³

Several SPATIAL NOUNS can easily be used in articulatory descriptions, as for vowel frontness and backness: (ɔ̂-)ĝû-š̂ ‘front’, (ɔ̂-)q̂ʔ-ji ‘central’, (ɔ̂-)qĥʔ-n̂ ‘back’;¹⁴ (ɔ̂-)ĝû-š̂ ve bù-kĥ ‘front vowel’.

Many other phonetic terms are more difficult, but even harder are phonological terms like COMPLEMENTARY DISTRIBUTION, or grammatical concepts like RELATIVE CLAUSE, FINAL UNRESTRICTED PARTICLE.

For such difficult cases, it is absolutely indispensable to be guided by educated native speakers. I could never have thought up most of Maung Maung’s creations, based as they often are on surprising metaphorical extensions of meaning. Only the native speaker has a sure sense of the ‘polysemy potential’ of common morphemes — that is, which metaphorical flights are instantly comprehensible to other speakers and which are obscure and unacceptable.

Among Maung Maung’s most inspired neologisms are the following:

- (18) Adjective
pĥʔ-t̂
unwrap/reveal-word
‘revealing word’

¹² See (59a) (Appendix C).

¹³ See (59e) (Appendix C).

¹⁴ For the dimension of vowel HEIGHT we can either use adjectival verbs, as with most of the names of the tones (e.g. *mu ve bù-kĥ* ‘high vowel’), or spatial nouns (e.g. *ɔ̂-k̂-l̂ ve bù-kĥ* ‘mid vowel’). Both genitive and relative constructions are marked by *ve*. Note that the spatial nouns (ɔ̂-)q̂ʔ-ji and (ɔ̂-)k̂-l̂ both mean ‘middle’, but are here artificially repartitioned so that one refers to the front/back dimension and the other to the high/low one, just as the English terms MID and CENTRAL are arbitrarily assigned to a particular vocalic dimension.

- (19) Verb
te-tô
do-word
'doing word'
- (20) Adverb
te-tô ga pā
verb help NOM
'verb helper'
- (21) Allophone
ò-śá pa khô
color change sound
'color-changed sound'
- (22) Assimilated sound
ğò-nê-khô
pull/drag-be.near-sound
'drag-near sound'
- (23) Cognate
tô-khô ò-ví-ò-ni
word siblings
'sibling words'
- (24) Dissimilate
bî?-vî
push-be.far
'push-far'
- (25) Sentence (spoken)
tô-cô?
word-CLF.long.objects
'word-strip'
- (26) Sentence (written)
li?-cô?
something.written-CLF.long.objects
'written strip'
- (27) Voiceless sound
gò-khô
be.cold-sound
'cold sound'

- (28) Vowel
 bù-khô
 resound-sound
 ‘resounding sound’

5. Neologistic strategies

5.1 Taking advantage of preexisting structures: neologistic elaborate expressions

The eighth sense of *khô* (above) is actually a good example of a successful neologism introduced by a missionary.¹⁵ The general word for ‘tone’ is now the widely accepted four-syllable expression *khô-mu-khô-nè* (lit. ‘high-sounds-low-sounds’), which follows the ABAC pattern typical of hundreds of other Lahu ELABORATE EXPRESSIONS, containing both a repeated syllable and an ELABORATE COUPLET, that is, a pair of semantically correlative morphemes, usually antonymous (as here) or synonymous.¹⁶

The verbs *fî* ‘make far; distinguish’ and *pè* ‘share; divide’ form an elaborate couplet, in expressions like *fî-dà?-pè-dà?* ‘discriminate; select the good from the bad’. Maung Maung pressed them into service in order to convey the concept ‘phoneme’, with three alternate possibilities:

- (29) Phoneme
- a. fî-khô-pè-khô
 distinguish-sound-divide-sound
 ‘distinguishing sounds’
 - b. fî-tô-pè-tô
 distinguish-word-divide-word
 ‘distinguishing words’
 - c. fî-dà?-pè-dà? khô
 distinguish-RECIP-divide-RECIP sound
 ‘mutually distinguishing sounds’

¹⁵ Probably Paul Lewis, to whom also belongs the credit for coining Lahu equivalents of such musical terms as ‘note’, ‘rest’, ‘soprano’, which have enabled the Christian Lahu to sing hymns in four-part harmony.

¹⁶ Other elaborate expressions are of the form ABCB, where it is the 2nd and 4th syllables that are identical. For a list of nearly a thousand of these elaborate couplets, see Appendix III of Matisoff (2006:403-448).

The nominal morphemes *ú* ‘head; beginning’ and *mē* ‘tail; end’ participate in a large number of elaborate expressions, for example, *hε-ú-hε-mē* ‘upper and lower parts of a swidden’; *qhɔ-ú-qhɔ-mē* ‘top and bottom of a hill’; *gãʔ-ú-gãʔ-mē* ‘a whole chicken’. These are convenient to express the morphological notions of ‘prefix’ and ‘suffix’: *tô-tɔn-ú* (‘head-syllable’) and *tô-tɔn-mē* (‘tail-syllable’).¹⁷ (The neologism for ‘syllable’ itself consists of *tô* ‘word’ plus *tɔn* ‘segment’.) Similarly, these morphemes may be combined with *khô* to form *khô-ú* ‘initial (position/sound in a syllable)’ and *khô-mē* ‘final (position/sound in a syllable)’.

Maung Maung also suggests *tô-côʔ-ú* (‘beginning sentence’) for ‘relative clause’, since RC’s usually precede their head in Lahu.

The bound nominal morpheme *vâ* occurs in many elaborate expressions as the couplet-partner of *chɔ* ‘person’, for example, *chɔ-hε-vâ-hε* ‘stalwart people’; *chɔ-ha-vâ-ha* ‘human souls’; *chɔ-lî-vâ-lî* ‘human rules of conduct’. This last expression has been recruited to form the neologism for ‘anthropologist’: *chɔ-lî-vâ-lî hên pā* (‘one who studies human rules of conduct’).

The antonymic pair of adjectival verbs *kê* ‘clean; pure’ and *tì* ‘muddy; turbid’ (as in *í-kâʔ-kê* ‘pure water’, *í-kâʔ-tì* ‘muddy water’), may be combined with *bù-khô* ‘vowel’ to mean ‘monophthong’ *bù-khô-kê* vs. ‘diphthong’ *bù-khô-tì*.¹⁸ This is reminiscent of the traditional Chinese terminology for a different conceptual opposition: *qīng* 清 ‘voiceless’ (lit. ‘clear’) vs. *zhúo* 濁 ‘voiced’ (lit. ‘muddy’).

The preexisting compound *tô-khô* ‘words; speech’ may be IONIZED as an elaborate couplet in new expressions like *tô-pôn-khô-pôn* ‘compound’ (*pôn* ‘add’), and *tô-vêʔ-khô-vêʔ* ‘elaborate expression’ (*vêʔ* ‘flower’).

5.2 Neologistic compounds: lexico-semantic innovations

Agentive nominalizer

The agentive nominalizer *pā* has until now been restricted to animate agents. In a large number of Maung Maung’s neologisms, this functor has been generalized to impersonal or abstract inanimates, that is, ‘that which V’s’, rather than ‘person who V’s’: ‘object’ *khān-pā* (‘that which undergoes’); *ò-ti jûʔ pā* ‘locative nominalizer’ (‘that which points to a place’); *tô-jûʔ-mâ pā* ‘unrestricted particle’ (‘that which applies to many words’).

¹⁷ We might as well add *tô-tɔn-kā* ‘infix’ (*kā* ‘space between’), since future Lahu linguists might want to work on Mon-Khmer languages!

¹⁸ An expression meaning ‘vowels in general; monophthongs and diphthongs’ can be created via the elaborate expression *khô-kê-khô-tì*.

Deletion of *ve*

The hard-working particle *ve* serves both as a genitivizer and as a relativizer. In both functions there are cases where the particle may be deleted, giving rise to structures which behave like lexical compounds. In our new metalinguistic terminology, such deletions are common:

(30) Deletion of genitive *ve*

- | | | | |
|----|------------------------|-------------|---------------------------|
| a. | mê-gì | jê-khô | < mê-gì ve jê-khô |
| | lip | stop | ... |
| | 'labial stop' | | |
| b. | nā-qhō | bù-khô | < nā-qhō ve bù-khô |
| | nose | vowel | ... |
| | 'nasalized vowel' | | |
| c. | nā-qhō | khô-ú | < nā-qhō ve khō-ú |
| | nose | first.sound | ... |
| | 'prenasalized initial' | | |

(31) Deletion of relative *ve*

- | | | | | |
|----|-----------|-----------|------|----------------------------|
| a. | ò-cə | mɛ | khô | < ò-cə mɛ ve khô |
| | thing | name (v.) | word | ... |
| | 'noun' | | | |
| b. | cí-kì | phû? | khô | < cí-kì phû? ve khô |
| | meaning | overturn | word | ... |
| | 'antonym' | | | |

What is unusual is to have a deletion of both relative and genitive *ve* from the same structure. This is something I had never encountered before, but which occurs frequently in our terminology for specifying both the position and the manner of articulation of a consonant, for example, *šá-mə? mə-gì jê-khô* 'aspirated labial stop'. This large compound consists of three elements (32a-c):

(32) DELETION OF BOTH GENITIVE AND RELATIVE *ve*

- | | |
|----|-------------|
| a. | šá-mə? |
| | breath-blow |
| | SUBJ + VERB |
| | 'aspirated' |
| b. | mê-gì |
| | mouth-skin |
| | 'lip' |

- c. jê-khô
 stop(v.)-sound
 ATTRIBUTIVE VERB + HEAD NOUN
 ‘a stop’

The underlying structure is:

- d. šá-mô? ve mât-gì ve jê-khô
 aspirated REL lip GEN stop(n.)

Similarly for *šá-chî? ò-tô?-lô? jê-khô* ‘unaspirated velar stop’:

- (33) a. šá-chî?
 breath-be.blocked
 ‘unaspirated’
 b. ò-tô?-lô?
 ‘(soft) palate’

The underlying structure is:

- c. šá-chî? ve ò-tô?-lô? ve jê-khô
 unaspirated REL (soft) palate GEN stop(n.)

Conjoined attributive nouns

Another unusual construction involves two nouns conjoined by the suspensive particle *lɛ* which jointly modify a following noun:

- (34) mât-gì lɛ cì khô
 lip and teeth sound
 ‘labiodental’

The two nouns *mât-gì* ‘lip’ and *cì* ‘teeth’ are conjoined by the particle *lɛ* ‘and’, with this whole construction serving to modify *khô* ‘sound’, with deletion of genitive *ve*.

Subject + verb construction modifying an attributive verb + noun

Other neologisms consist of a subject + verb construction modifying an attributive verb + noun construction. This S + V / V + N structure seems to be quite innovative:

- (35) a. *cí- pən- šū- khô*
 S- V- V- N
 meaning-different-same-sounds
 ‘homonym’
- b. *cí- šū- pən- khô*
 S- V- V- N
 meaning-same-different-words
 ‘synonym’

The syllable *cí-* is here treated as a short form of the noun *cí-kî* ‘meaning’, a preexisting compound which in turn is a nominalization of the verb *cí* ‘stick to’. The form *kî* is a locative nominalizer, here used in a more general sense: ‘that which sticks’ is a ‘meaning’. The words *šū* and *pən* are verbs meaning ‘to be the same’ and ‘to be different’, respectively. The head of these constructions is the noun *khô*, here to be glossed either as ‘word’ or ‘sound’. The modifiers consist of novel combinations of a subject-verb construction (‘meaning is different’, ‘meaning is same’) with an attributive verb (*šū* or *pən*). So homonyms are MEANING-DIFFERENT-SAME-SOUNDS, whereas synonyms are MEANING-SAME-DIFFERENT-WORDS. The semantic flexibility of *khô* makes these symmetrically neat coinages possible.¹⁹

Equivalent terms

For many of our new terms, several different Lahu equivalents are offered. Some of them are more EXPLANATORY than LEXICAL. An explanatory equivalent is a straightforward syntactic description of what the English item means; a lexical equivalent is abbreviated into a single morphological unit, sometimes of complex or unusual structure (see examples above).

Often several candidates for translating a given term will present themselves, some of them of the long-winded (but clear) explanatory type, and others more concise and LEXICALIZED, but rather more difficult to grasp on first hearing. A few examples:

- (36) Consonant
- a. *mòʔ-qə məʔ khô*
 mouth shut sound
 ‘closed mouth sound’
 (This term is unsatisfactory, because it is more suitable to translate ‘stop’,
 below.)

¹⁹ Another example of this flexibility of *khô* is the pair of terms *khô-yì* ‘long form (of a compound)’ where *khô* means ‘word’, and *khô-nè-yì* ‘long low tone’, where *khô* means ‘tone’.

- b. tɛ-khō
establish-sound
'laid down/established sound'
- c. tən-khō
begin-sound
'beginning sound'

(37) Continuant

- a. ʔ-śá mâ chē? lɛ tō? la ve ʔ-khō
breath not break and emerge CIS REL sound
'sound emerging without cutting off the breath'
- b. ʔ-khō ġə qay pí ve khō
voice pull go.on be.able REL sound
'sound that the voice can continue pulling'
- c. ʔ-śá ló ve cɛ ʔ-khō bù qay phē? ve ʔ-khō
breath remain REL EXT sound resound go.on be.able REL sound
'sound that can last as long as the breath holds out'
- d. bù qay pí ve ʔ-khō
resound go.on be.able REL sound
'sound that can continue resounding'
- e. cá-ġə-khō
continue-pull-sound

(38) Noun

- a. mɛ-khō
be.named-word
'naming word'
- b. ʔ-cə mɛ-khō
thing name-word
'thing naming word'
- c. ʔ-cə ʔ-mɛ
thing name
'thing name'
- d. tō-mɛ
word-name(n.)
'word name'

(39) Particle

- a. tō jū? pā
word point.out NOM
'word indicator'

- b. tō bēʔ pā
word scoop.up NOM
'word scooper'

(40) Stop

- a. mēʔ-khō
shut-sound
'occluded sound'
- b. jē-khō
stop-sound
'stopped sound'
- c. (ō-qhən) qha-pə ní-tī ve khō
organ all press.down REL sound
'sound where the speech organs are all closed'
- d. tō yō qhən mēʔ khō
word speak organ shut sound
'speech organs closed sound'
- e. mōʔ-qō mēʔ lə ò-śá chēʔ ve ò-khō
mouth shut and breath cut.off REL sound
'a sound where the mouth is closed and the breath is cut off'
- f. ò-śá ló thō ò-khō làʔ-cí-làʔ-há ġa ši ve
breath remain although sound immediately must die NOM
'a sound which has to die abruptly even if the breath lasts'
- g. mōʔ-qō tē khi tí mēʔ pə ve ò-khō
mouth one moment only shut finish REL sound
'a sound where the mouth is completely closed for a while'

Which, if any, of these alternative terms will catch on remains to be seen.²⁰ Eventually semantic repartition may occur between closely resemblant items.

²⁰ There remain a number of cases where it has been difficult to decide among alternatives:

- (i) Does Lahu *tō(-khō)* ò-ví-ò-ní (lit. 'sibling words') work better for 'word family' or for 'cognate'?
- (ii) After some hesitation we decided that 'allophone' would be better translated by ò-śá *pā khō* (lit. 'color changed sound'), while *śū dàʔ khō* (lit. 'sounds which are the same as each other') should be reserved for 'variant sound'.
- (iii) The terms coined for 'noun particle' (*tō-me jūʔ pā* 'word-name indicator') and 'general nominalizer' (*me-khō jūʔ pā* 'naming-word indicator') are perhaps confusingly similar.

6. Key verbs in our neologisms

Particularly important is the recruitment of VERBS for metalinguistic duty. Table 1 contains a list of some of the most important ones (given in my Lahu alphabetical order!).

Table 1: Key verbs in neologisms

Verb	Gloss	Example neologism
kì	‘melt’	<i>bù-khō nī mà kī dà? á ve</i> ‘fused vowels’
khán	‘be clogged; blocked up’	<i>khán-tō? khō</i> ‘fricative’
khān	‘undergo; receive’	<i>khān-pā</i> ‘object’
gu	‘prepare; fix’	<i>gu-kō</i> ‘reconstruct’ (<i>kō</i> ‘pile up’)
cá	‘join; connect; continue’	<i>cá-ǵō khō</i> ‘continuant’
cí	‘be joined to; depend on’	<i>cí-kì</i> ‘meaning’
cú	‘close tightly; pucker up’	<i>bù-khō mō?-qō cú è ve</i> ‘rounded vowel’
chê?	‘break; sever; snap in two’	<i>ò-šá chē? ve ò khō</i> ‘obstruent’
chī?	‘crumple up; squeeze’	<i>ò-šá chī? ve</i> ‘unaspirated’
jû?	‘stab; point at; indicate’	<i>ò-ti jû? ve</i> ‘locative’
jê	‘stop; cease’	<i>jê-khō</i> ‘stop’
tē	‘put down/set on/establish’	<i>tē-khō</i> ‘consonant’
tō?	‘emerge’	<i>nā-qhō cē tō? khō</i> ‘nasal sound’ (lit. ‘nose only emerge sound’)
tō	‘dam up; demarcate’	<i>tō-tō</i> ‘syllable boundary’
dī?	‘vibrate’	<i>qá-qā-lā dī? ve</i> ‘larynx vibrates; voicing’
dō?	‘be close together’	<i>dō? dà? ve</i> ‘touch (as articulator)’
ní-tī	‘immobilize by pressing’	<i>ní-tī kī</i> ‘point of occlusion’
pa-e	‘be changed’ (V + Pv)	<i>tō pa-e khō</i> ‘idiom’
pā	‘turn around; switch position’	<i>cí-kì pā khō</i> ‘antonym’
pē	‘share; divide up’	<i>fī-khō pē-khō</i> ‘phoneme’
pō?	‘pop’	<i>pō?-khō</i> ‘plosive’
pōn	‘add’	<i>tō pōn-khō pōn</i> ‘compound’
pən	‘be different’	<i>cí pən-šū khō</i> ‘homonym’
phī	‘flat; level; even’	<i>phī-khō</i> ‘unrounded vowel’
phû?	‘turn over; turn upside down’	<i>cí-kì phû? khō</i> ‘antonym’
bù	‘make a sound/resound’	<i>bù-khō</i> ‘vowel’
bē?	‘scoop out; scoop up’	<i>tō-bē?-pā</i> ‘particle’
mē?	‘close abruptly’	<i>qá-qā-lā mē? khō</i> ‘glottal stop’
mâ?	‘blow’	<i>ò-šá mâ? ve khō</i> ‘aspirate’
ǵó	‘round’	<i>mā-ǵó bù-khō</i> ‘rounded vowel’
ǵò	‘drag; continue’	<i>cá ǵò khō</i> ‘continuant’
šū	‘be the same’	<i>cí-šū pən-khō</i> ‘synonym’
šō?	‘rub/stroke’	<i>šō? bù ve khō</i> ‘fricative’
ve	‘lay claim to’	<i>ve pā</i> ‘genitive’

7. Putting the new terminology to work in complete sentences

The test of any terminological system is the ease and naturalness with which it can be used in complex utterances. The following sentences are a representative sample of the kind of linguistic talk that might now be possible in Lahu:²¹

- (41) Lâhū tō-khō yē-qhā ò-qhō lo tō-jū?-pā lē a-yē
Lahu words use-way within LOC particle TOPIC importance
ĩ jā.
great very
'In Lahu grammar the particles are very important.'
- (42) fĩ-khō-pē-khō tē khō tí ò-qhō lo ò-śó-pa-khō láy khō cò ġa ve yò.
'A single phoneme may have several allophones.'
- (43) ò-śó-pa-khō chi tē phā, tē khō lē tē khō cá dā? ve ò-qhā thā? 'chē-kì pa ġa ve
šū-dā?-khō'²² phē? ve tē? qō? ve yò.
'The relationship among the allophones of a phoneme is called
"complementary distribution".'
- (44) Lâhū-khō te-tō phē? ve qo, mā-hē?-tō phē? ve 'mā' thā? yù tē? ni ġa²³ ve yò.
'All Lahu verbs can be negated by *mā*.'
- (45) 'ó-qō-šĩ' qō? ve tō-khō ò-qhō lo tō-hò? šē? cò cò ve yò.
'The word *ó-qō-šĩ* contains three morphemes.'
- (46) Lâhū-khō mē?-khō šē? cò cò ve.
'Lahu has three series of stops.'
- (47) yô ò-ší-pá Lâhū yâ à? šū dā? ve.
'His accent is just like a Lahu's.'
- (48) Kâlâ-phu khō chi ò-ší-pá qhâ-qhe phē? ve lē?
'What's the pronunciation of this English word?'
- (49) a. tō-yo ò-qhən ò-qhâ-ši qay lē ò-khō thā? qhâ-qhe te pē dā? phē? ve lē?
b. tō-yo ò-qhən yù lē ò-khō thā? qhâ-qhe te pē dā? phē? ve lē?
'How can we classify sounds according to the vocal organs?'

²¹ Space constraints preclude giving word-by-word glosses (except for the first example). For a list of all the words and morphemes used in the neologisms, sorted by form-class, see Appendix D.

²² Lit., 'the same sound which has changed (*pa ġa ve*) in different places'.

²³ This is a four-verb concatenation: *yù tē? ni ġa* (vV + Vh + Vv + Vv) 'take-measure-look-able.to'.

- (50) dīʔšōnēli qhə qhà-qhe te lɛ tō-khō ca mò phēʔ ve le?
'How can we find a word in the dictionary?'
- (51) a-ló ve liʔ-mêʔ tɛ-qhâ šō lɛ tō-khō ġa mò ve.
'You can find a word by alphabetizing by the first letter.'
- (52) ò-khō chi tē cə lè ò-pâ-ò-kì chi ò-qhə lo yê phēʔ ve mâ hēʔ.
'This kind of sound cannot be used in this environment.'
- (53) Lâhū-nâʔ ve tō-khō ò-qhə lo **q** lɛ **k** lè pən dàʔ kì cə ve yò.
'In Black Lahu there is a phonemic contrast between *q* and *k*.'

Much remains to be done, even with respect to phonetic terminology, but the next step will be to proceed systematically to morphology and syntax. It is my fond hope that the new generation of Lahu linguists will soon feel comfortable discussing fine points of their language's structure in Lahu itself. If so, perhaps my academic approach to Lahu will have had a positive impact after all.

Appendix A

Lahu phonology (Mânphùlón subdialect of Black Lahu)

Table 2 contains the phonemic inventory of Black Lahu:

Table 2: Lahu phonemic inventory

Consonants					Vowels			Tones		
p	t	c	k	q	i	ĩ	u	mid [unmarked]	33	○
ph	th	ch	kh	qh	e	ə	o	high rising	35	○̇
b	d	j	g		ɛ	a	ɔ	high falling	53	○̂
m	n		ŋ					low falling	21	○̌
f		ʃ		h				very low	11(2)	○̋
v		y		ġ				high checked	4-ʔ	○̌ʔ
l								low checked	2-ʔ	○̋ʔ

Syllable canon: (C) V T

(54) Notes on phonology

- Some diphthongs also occur, mostly in loanwords.
- y* functions as the voiced homologue of *ʃ*.
- ġ* [ɣ] is historically the voiced homologue of *h*.²⁴
- Lahu lacks a phoneme /s/.
- Vowel nasalization (symbolized by <-n>) in loanwords from Burmese, Tai, Chinese, or English is always optional.

Allophony in the labial and palatal series

The four labial phonemes /p ph b m/ are affricated before /u/, which is itself unrounded to [u] in this environment (Figure 2).

/pu/ → [pfu] /phu/ → [pfhu] /bu/ → [bvɯ] /mu/ → [mvɯ] or [mɣ]

Figure 2: Labial allophony

The five palatal phonemes /c ch j ʃ y/ become dentals before /i/, which is itself raised to [ɪ] in this environment (Figure 3).

/ci/ → [tɕɪ] /chi/ → [tɕhɪ] /ji/ → [dʒɪ] /ʃi/ → [ʃɪ] /yi/ → [ɹɪ]

Figure 3: Palatal allophony

Finally, the /n/ phoneme has a palatal allophone before /i/: /ni/ → [ɲi].

²⁴ /ġ/ derives from PLB *r-, while /h/ comes from a number of glottalized or aspirated sonorants: */ʔr ʔl ʔy hr hl hy/.

Appendix B

Alternative transcriptions for Lahu²⁵

At least four writing systems have been devised for Lahu, two of them by Christian missionaries, one by Chinese linguists, and one by the present author (see Tables 3-5).

Table 3: Consonant equivalences in Lahu orthographies

CATHOLIC	BAPTIST	CHINESE	MATISOFF
q	k'	q	q
qh	hk'	qh	qh
k	k	k	k
kh	hk	kh	kh
g	g	g	g
ng	ng	ng	ŋ
c / tc	c / tc	c / z	c
ch / ts	ch / ts	ch / zh	ch
j / dz	j / dz	j / dz	j
t	t	t	t
th	ht	th	th
d	d	d	d
n / gn	n / ny	n	n
p / pf	p / pf	p	p
ph / phf	hp / hpf	ph	ph
b / bv	b / bv	b	b
m / mv	m / mv	m	m
h	h	h	h
gh	g'	x	ḡ
sh / s	sh / s	sh / s	š
y / z	y / z	y / r	y
f	f	f	f
v	v	v	v
l	l	l	l

(55) Notes on Table 3

- a. The missionary transcriptions use 10 phonemically unnecessary consonantal symbols: <pf, hpf, bv, mv, ny, tc, ts, tz, s, z>. On the other hand, my transcription of the consonants requires three special symbols: <ŋ, š, ḡ>.²⁶

²⁵ For a fuller discussion, see Matisoff (1988:20-27).

²⁶ I would now have no objection to replacing them by <ng>, <sh>, and <gh>, respectively.

- b. While an accurate phonemic transcription is indispensable for historical/comparative work, it could be claimed that a practical orthography should not require the user to make complex deductions, such as interpreting <ši> as [sɿ], or <yí> as [zɿ].
- c. The Catholic transcription <gn> of the palatal allophone [ɲ] of /n/ before /i/ reflects Franco-Italian influence.

Table 4: Vowel equivalences in Lahu orthographies

CATHOLIC	BAPTIST	CHINESE	MATISOFF
a	a	a	a
i	i	i	i
u / ɔ̃	u / uh	u	u
e	e	e	e
o	o	o	o
è	eh	ie	ɛ
ò	aw	aw	ɔ
ü / ɔ̃	ui / uh	eu	i
ë	eu	eu	ə

(56) Notes on Table 4

- a. The vowels /i/ and /ə/ are correctly distinguished in the missionary orthographies, but are confounded in the Chinese spelling, which writes them both as <eu>.
- b. Both missionary transcriptions confuse the allophone of /u/ after labials (phonetically [w]), with the somewhat similar allophone of /i/ after palatals (phonetically [ɿ]), writing them both as <ɔ̃> (Catholic) or <uh> (Baptist).
- c. In the Catholic spelling, the mid vowels /ɛ/, /ɔ/ are written with grave accents <è>, <ò>, while the central vowels /i/, /ə/ are written with diaereses <ü>, <ë>. The use of diacritics to indicate vowel qualities is also characteristic of standard Vietnamese orthography, invented by the French Catholic Alexandre de Rhodes in the 17th century. As in Vietnamese, this means that some vowels must carry two diacritics, one for the quality and one for the tone.

Table 5: Tone equivalences in Lahu orthographies

	CATHOLIC	BAPTIST	CHINESE	MATISOFF
mid	ca _˘	ca	ca	ca
high rising	ca ^ˆ	ca ^ˉ	caq	cá
high falling	ca [˘]	ca [˘]	cad	câ
low falling	ca _˘	ca _˘	cal	cà
very low	ca	ca _˘	cal	cā
high checked	ca ^ˆ	ca ^ˆ	cat	câ?
low checked	ca _˘	ca _˘	car	cà?

(57) Notes on Table 5

- a. In both missionary orthographies, the tonemarks are placed one space after the vowel, which makes it impossible to run syllables of the same word together, and unesthetic to join syllables within a word with hyphens, so that there is no way to tell where one word ends and the next one begins.
- b. In my orthography the tonemarks appear above the vowel. In the case of the two checked tones, part of the tonemark is a postvocalic glottal stop, but this offers no impediment to hyphenization. I regard the checked tones as forming a distinct subsystem from the open ones (they derive from protosyllables with final stops), so that no synchronic or diachronic connection is implied between the high falling and high checked tones, or between the low falling and low checked tones.
- c. The missionary systems use both superscript and subscript tonemarks, which makes them hard to type and easy to confuse with each other.
- d. The tonemarks in the Catholic system are particularly cumbersome, since several of them are not standard diacritics at all, but rather curved lines or hooks meant to suggest mnemonically the actual contours of the tones.
- e. The Chinese system of marking tones by arbitrary postvocalic consonants has much to recommend it. Such transcriptions were popular in the U.S. in the 1940's and 1950's for languages like Thai and Burmese, and similar romanizations are now in use for Hmong and Mien. It makes it possible to write polysyllabic words with no spaces between the syllables, usually without ambiguity as to the syllable boundary. It is eminently printable, typeable, and word-processible. In its earlier version it was seriously flawed by writing the low falling and very low tones with the same letter <-l>. This has now been rectified by using <-f> for the latter, as urged in Matisoff (1984).

Table 6 presents a sample sentence in all four orthographies.

Table 6: Sample sentence in four orthographies

CATHOLIC				
ya _˥ gni_ò	nga _˥ hü _˥ te _˥ qha [˥]	qhò _˥ phò _˥	sha	ca _˥ gha [˥] e tu _˥ le
BAPTIST				
ya _˥ nyi aw _˥	nga _˥ hui te _˥ hk'a [˥]	hk'aw _˥ hpaw _˥	sha _˥	ca g'a _˥ e tu _˥ le
CHINESE				
yar ni awl	ngal heu ted qhat	qhawl phawd	shal	ca xar e tul le
MATISOFF				
yàʔ-ni ʔ	ɲà-hi tē qhâ?	qhò-phô	šā	ca gâʔ e tù le
today	our village	where	game	go and hunt
NP ¹	NP ²	NP ³	NP ⁴	VP
‘Where shall our village go to hunt today?’				

Appendix C

Some suggested linguistic terminology for Lahu, arranged by category

(MM = Maung Maung, JAM = Matisoff)

(58) General	
abbreviation	tô-ŋɛ
alphabet	kâ?-khâ?-ŋâ?; li?-ma-pā
alphabetical order	tê tɔ pə tê tɔ qhâ-qhe te qay le; li?-ma-pə tɛ-qhâ; tô-mê? ve tɛ-qhâ
anthropologist	chɔ-lí-vâ-lí hên-pā
boundary/border	ò-tɔ
classification	pè dà? ve ò-qhâ
continue/keep on	gò ve; cá ve
cut off/not continue (sound)	chê? ve
dictionary	cí-kì yù tɔ? ve li?; tô-khò cí-kì li?; dī?šōnēli
environment	ò-pā-ò-kì; ò-jâ-phô
exception	tô-khò ò-lí yà? ve
gloss (short definition)	cí-kì-ŋɛ
hyphen	tô-tɔ ò-máy [MM]; tô-tɔ ò-hê? [JAM]
double hyphen	tô-tɔ ní mà
triple hyphen	tô-tɔ šê? mà
interpret/elicit/translate	cí-kì yù tɔ? ve
irregular	gã mò hã ve ò-lí; mò mì mâ hê? ve ò-lí
language	tô-khò
last (in a series)	ò-lɛ-mô
letter (of an alphabet)	li?-mē
linguist	tô-khò cū-yī hên-pā ('one who studies linguistics'); tô-khò cū-yī cò-pa ('one who knows linguistics') ²⁷
linguistics	tô-khò cū-yī
list	câlân
middle	ò-kā; ò-qó-ji
optional	lô?-kə-lô?-bà; lô?-gã-bà-gã
order (of things in series)	tɛ-qhâ; là ve ò-qhâ
press/force/occlude	ní ve
pronunciation/accent	tô?-khò; ò-ší-pá

²⁷ Perhaps one might make a whimsical repartition here, reserving the second term for anyone who already has a Ph.D.!

regular	te-mì-te-cí
regular rule	gã mò mì ve ò-lí
represent	ò-tan te ve
sound	khô; ò-khô
speak	yɔ ve
take out/delete	yù tɔʔ ve; yù bà ve
text	bùʔ tã ve lìʔ; lìʔ-tɔn
utterance	yɔ tɔʔ la ve tɔ
writing system	lìʔ-mêʔ

(59) Phonetics

a. Vocal organs

alveolar ridge	ci-tê
breath	šá; ò-šá
larynx/glottis	qá-qə-lə
lip	mê-gì
upper lip	mê-gì ò-na-pá ve
lower lip	mê-gì ò-hó-pá ve
lungs	ò-chí-phôʔ
mouth	mòʔ-qɔ
nose	nā-qhō
organ; tool	ò-qhən
outstretched/protruded	che pə tã ve
palate	mòʔ-qɔ ò-tôʔ-lôʔ; mòʔ-qɔ ò-tò-nôʔ; mòʔ-qɔ mù-phe
hard palate	ò-tôʔ-lôʔ hɛ ve
soft palate/velum	ò-tôʔ-lôʔ nû ve
rounded	mê cú ve
spread	ɲá ve
tongue	ha-tê
tip of the tongue	ha-tê-mô
tooth/teeth	ci
vocal organs	tɔ yɔ pí tù ò-qhən; tɔ yɔ ò-qhən

b. Positions of articulation

alveolar sound	ci-tê-khō
apico-dentals	ha-tê-mô (cɛ) mèʔ/yê khō
bilabials	mê-dòʔ-khō; mê-gì-khō
glottal stop	qá-qə-lə (cɛ) mèʔ khō; qá-qə-lə šá jê khō

labials	mâ-gì (cɛ) mèʔ/yê khô
labial stop	mâ-gì jê-khô
labiodentals	mâ-ci-khô; mâ-gì lɛ ci mèʔ (dàʔ) ve khô
lamino-palatals	ha-tɛ ò-qó-ji (cɛ) mèʔ/yê khô; ha-tɛ ò-qɔ-ji khô; ò-tôʔ-lôʔ khô
laryngeal/haitch [h]	śá gò khô (tèʔ-chí mâ mèʔ)
laterals	ha-tɛ ò-jâ khô; ha-tɛ ò-jâ-phô tɔʔ khô; chò-phô-ô-phô tɔʔ la ve khô
pharyngeal	qhòʔ-khô; qhòʔ-qhɔ-khô
pharyngealized	qɔ-khô ò-ci-kā khô
point of occlusion/articulation	ní-tī kì; mèʔ dàʔ kì
post-velars/uvulars	ha-tɛ cí-nòʔ kì (cɛ) mèʔ khô; qɔ-khô; ha-tɛ ò-ci-pī ò-qhòʔ-nó khô
touch (as articulator)	dòʔ (dàʔ) ve
uvular	ha-cu-ni khô
velars	ha-tɛ ò-ci-pī (cɛ) mèʔ/yê khô; ha-tɛ ò-khí-pī (cɛ) mèʔ khô; ò-tôʔ-lôʔ nú ve khô; ò-tôʔ-lôʔ nú ve khô
c. Manners of articulation	
affricate	khán-tôʔ-chíʔ-khô
approximant	ha-tɛ ò-jâ khô
aspirate (v.)	môʔ ve
aspirated stop	ò-śá môʔ ve ní-tī ve khô
aspirated sound	ò-śá môʔ ve khô; śá-môʔ-khô
aspirated labial stop	śá-môʔ mâ-gì jê khô
consonant	mòʔ-qɔ mèʔ khô; tɛ-khô; tàn-khô
continuant	ò-śá mâ chéʔ lɛ tɔʔ la ve ò-khô; ò-khô gò qay pí ve khô; ò-śá lá ve cɛ ò-khô bù qay phêʔ ve ò-khô; bù qay pí ve ò-khô; cá-gò-khô
fricative	khán-tôʔ-khô [MM]; šòʔ-bù ve khô [JAM]
voiced fricative	qá-qə-lə díʔ lɛ šòʔ-bù ve khô
voiceless fricative	qá-qə-lə mâ díʔ lɛ šòʔ-bù ve khô
manner series (of obstruents)	cə ‘kind’ (Clf.)
nasal sound	nā-qhò cɛ tɔʔ ve khô
noncontinuant	tê pòʔ tí jê ve ò-khô; jê-chéʔ-khô
occlude	ní-tī ve; mèʔ dàʔ ve
plosive	pôʔ-khô

prenasalized consonant	nā-qhō khō-ú
stop/obstruent	mè?-khō; jê-khō; (ò-qhən) qha-pə ní-tī ve khō; tō yə qhən mè? khō; mò?-qə mè? le ò-śá chē? ve ò-khō; ò-śá lá thō ò-khō là?-cí-là?-há ġa ši ve; mò?-qə tē khi tí mè? pə ve ò-khō
plain stop (v'less unasp.)	à-qhe-lē ve ní-tī ve khō
unaspirated	śá-chî?-khō
unaspirated stop	ò-śá mā mō? ve ní-tī ve khō
unaspirated labial stop	śá-chî? mō-ğì jê-khō
voiced, be/vibrate	dî? ve
voiced sound	dî?-khō; qá-qə-lə dî? khō
voiced fricative	qá-qə-lə dî? le šō?-bù ve khō
voiced stop	qá-qə-lə dî? le ní-tī ve khō; qá-qə-lə dî? jê-khō
voiceless, be	gò ve ('be cold')
voiceless sound	gò-khō
voiceless fricative	qá-qə-lə mā dî? le šō?-bù ve khō
voiceless stop	qá-qə-lə mā dî? le ní-tī ve khō
voiceless unaspirated stop	qá-qə-lə mā dî? le ò-śá mā mō? ve ní-tī ve khō
voiceless aspirated sound	mō?-khō
d. Vowels	
vowel	bù-khō; śálâ? (< Thai)
simple vowel/pure vowel	bù-khō-kè (ò-khō tē khō tí cò ve)
diphthong/complex vowel	bù-khō-tì (ò-khō ní khō khō? dà? ve); bù-khō-pôn
fused vowels	bù-khō ní mà kì dà? á ve
nasalized vowel	nā-qhō bù-khō
long (as a vowel)	yì ve
short (as a vowel)	ɲɛ ve
high (as a vowel)	mu ve
low (as a vowel)	nè ve
open (i.e. low, as a vowel)	phə-khō
front vowel	ha-tē ò-mō ġa yē ve bù-khō
central vowel	ha-tē ò-qó-ji ġa yē ve bù-khō
back vowel	ha-tē ò-cí-pī ġa yē ve bù-khō; ha-tē ò-cí-pī mu ve bù-khō
rounded vowel	mō ġó bù-khō; mò?-qə cú è phè? ve bù-khō
unrounded vowel	(mō) phī khō; mò?-qə phī è phè? ve bù-khō

high vowel	(ha-tē) mu ve bù-khō
high front vowel	(ha-tē) ò-mô mu ve bù-khō
high central vowel	(ha-tē) ò-qó-ji mu ve bù-khō
high back vowel	(ha-tē) ò-cí-pī mu ve bù-khō
high back rounded vowel	(ha-tē) ò-cí-pī mu ve mâ cú khō
high back unrounded vowel	(ha-tē) ò-cí-pī mu ve phī-khō
high central unrounded vowel	(ha-tē) ò-kā mu ve mâ phī-khō
high front unrounded vowel	(ha-tē) ò-mô mu ve phī-khō
mid (half open, as vowel)	tê khō phō-khō; (ha-tē) a-cí mu ve bù-khō; (ha-tē) ò-kā-lé mu ve bù-khō
mid front vowel	(ha-tē) ò-mô ò-kā-lé mu ve bù-khō
mid front unrounded vowel	(ha-tē) ò-mô ò-qó-ji phī-khō
mid central vowel	(ha-tē) ò-qó-ji ò-kā-lé mu ve bù-khō
mid back vowel	(ha-tē) ò-cí-pī ò-kā-lé mu ve bù-khō
mid back rounded vowel	(ha-tē) ò-cí-pī ò-qó-ji mâ-ğó khō
low vowel	(ha-tē) nè ve bù-khō
low front vowel	(ha-tē) ò-mô nè ve bù-khō
low front unrounded vowel	(ha-tē) ġû-şī nè ve mâ-phī-khō
low central vowel	(ha-tē) ò-qó-ji nè ve bù-khō
low central unrounded vowel	(ha-tē) ò-kā nè ve phī-khō
low back vowel	(ha-tē) ò-cí-pī nè ve bù-khō
low back rounded vowel	(ha-tē) ò-cí-pī nè ve ġó-khō
e. Tones	
tone order (in dictionary)	ò-khō te-qhâ
tones	khō-mu-khō-nè
tone marks	khō-mu-khō-nè ve ò-hê?/ò-máy
mid-tone (33)	khō ò-qó-ji
high-rising tone (35)	khō-mu-yì ('long high tone')
high-falling tone (53)	khō-mu ('high tone')
low-falling tone (21)	khō-nè ('low tone')
very low tone (11[2])	khō-nè-yì ('long low tone')
high stopped tone (54s)	khō-mu-ŋɛ ('short high tone')
low stopped tone (21s)	khō-nè-ŋɛ ('short low tone')

(60) Phonology and morphophonemics

allophone	ò-şá-pa khō
assimilate	ğò-nê (la) ve
assimilated sounds	ğò-nê-khō; ġò-yù nè dà? khō

complementary distribution (sounds in)	ò-pâ-nê pa khô; ò-śó pa khô
contrast	pən dà? kî
dissimilate/dissimilation	bî?-vî ve
dissimilated sounds	bî?-vî-khô
minimal pair	i ve khô-çê
phoneme	fî-khô-pè-khô; fî-tô-pè-tô; fî-dà?-pè-dà? khô
variant sound	šũ-dà?-khô
(61) Morphology and form classes	
adjective	phà?-tô
adjectival verb	phà?-tô-te-tô
adverb	te-tô ga pā
affix	tô-tôn-cá
classifier	ò-cà pè tô
compound	tô-pôn-khô-pôn
elaborate couplet	tô-vê? ò-çê
elaborate expression	tô-vê?; tô-vê?-khô-vê?
final (position in syllable)	khô-mē
form class/part of speech	tô-cà
infix	tô-tôn-kā
initial consonant	khô-ú; khô ò-tàn kî
long form (of a compound)	khô-yî
morpheme	tô-hò?
noun	mē-khô; tô-mē; ò-cà mē-khô; ò-cà ò-mē
noun particle ²⁸	tô-mē jû? pā
particle	tô-jû?-pā; tô-bê?-pā; tô láy mà jû? pā
prefix	tô-tôn-ú
short form (of a compound)	khô-ŋe
suffix	tô-tôn-mē
syllable	tô-tôn; tô-khô ò-tôn
syllable boundary	tô-tô
unrestricted particle	tô-jû? mâ pā
final unrestricted particle	tô-mē jû? mâ pā; tô-le jû? mâ pā
nonfinal unrestricted particle	tô-kā jû? mâ pā
verb	te-tô; te-tô-phê?-tô; te-khô; te-khô-phê?-khô
verb particle	te-khô jû? pā

²⁸ See also ‘general nominalizer’.

(62) Syntax/grammar

grammar	tô-khô yê-qhâ
intransitive	khân-pā mā yù (pí) ve te-tô
locative	ò-ti jû? ve
locative noun	ò-ti jû? ve mε-khô
negative	mâ-hê?-tô
nominalizer	mε-khô phê? ci pā; tô-mε-pā
agentive nominalizer	te-sē-phâ jû? pā
general nominalizer	à-la-qhe ve tô-mε-pā; mε-khô jû? pā; tô-cà jû? pā
locative nominalizer	ò-ti jû? pā
purposive nominalizer	dô-ti jû? pā
temporal nominalizer	ò-yân jû? pā
object	khân-pā
particle	tô jû? pā; tô bê? pā
phrase	li?-cô? ò-ton
possessive/genitive	ve pā
relative clause	tô-cô?-ú
right relative clause	là?-ša tô-cô?
sentence	ò-cô?
spoken sentence	tô-cô?
written sentence	li?-cô?
transitive verb	khân-pā yù ve te-tô
word	tô-khô
word order	tô-khô tε-qhâ; ò-khô tε-qhâ

(63) Semantics

antonym	cí-kì pā khô; cí-kì phû? khô
definition	cí-kì phê? mā ve
denote	ò-tan te mā ve
episode (of a narrative)	ò-lon ò-ton
homonym	cí-pən-šū-khô
idiom	tô-pa-e khô
key word/key term	tô-ma-pā
meaning	cí-kì
opposite (in meaning)	cí-kì phû? tô? ve /see ‘antonym’/
purpose, have a	dô-ti ve
semantics	cí-kì cū-yī
synonym	cí-šū-pən-khô

(64) Historical linguistics

allofam	tô-khô-yâ
cognate	tô-khô ò-ví-ò-ni
historical linguistics	tô-cí-pī cú-yī
protolanguage	tô-pī-tô-mô
reconstruct/reconstruction	tô-cí-pī qò? gu-kō ve
sound correspondence	ò-khô ò-lí thà? gâ? pa ve
word family	tô-khô-yâ tê phā

Appendix D

Words and morphemes in the neologisms, sorted by form-class

(65) Nouns

a-yê	importance (< Burmese)
a-ló	first
(ò-)ú	head
ó-qō(-šī)	head
qá-qə-lə	larynx
(ò-)qó-ji	middle
qō	neck
(ò-)qhâ	way; path
(ò-)qhâ-šī	tracks; trail
(ò-)qhə	inside
qhòʔ-qhə	throat
(ò-)qhòʔ-nó	behind; after
(ò-)qhən	tool; organ
kâʔ-khâʔ-ŋâʔ	alphabet
Kâlâ-phu	white person; Caucasian
(ò-)kā(-lé)	between; middle
khô-yâ	family
(ò-)khô	sound; noise; voice; words; language; phrase; sentence; advice; reason
(ò-)khí-pī	base; source
câlân	list
cì	tooth, teeth
cì-tê	gums; alveolar ridge
cû-yì	knowledge; skill
(ò-)cē	pair; couple
(ò-)côʔ	strip; length of something
cí-kì	meaning
(ò-)cí-kā	boundary; border
(ò-)cí-pī	foundation; base
(ò-)cə	thing; kind; sort
chì	this; these
chə	person
(ò-)chî-phôʔ	lungs
(ò-)jâ(-phô)	edge; border

ò-tan	substitute; symbol
ò-tàn	beginning
(ò-)ti	place
ò-tô?-lô?	palate
(ò-)tɔn	section (of long object)
tô(-khô)	word
(ò-)tò-nô?	step; ledge; ridge
(ò-)na-pá	upper; above
nā-qhō	nose
(ò-)pâ-nê	near; vicinity; environs
(ò-)pī	something old
(ò-)ma-pō	mother of; most important part
mû-phe	upper part; place above
ò-mē	a name
(ò-)mē	tail
mê?(-šī)	eye
mò?-qɔ	mouth
(ò-)mô	tip
mô(-gì)	lip
(ò-)má	mark; symbol (< Tai)
ha-cu-ni	uvula (lit. ‘tongue-clitoris’)
ha-tē	tongue
ò-hê?	sign; augury; symbol
(ò-)hò?	form; shape; image (ult. < Pali/Sanskrit)
ò-hó-pá	underneath; part below
(ò-)gū-šī	front; part before; time before
(ò-)śá	air; breath; spirit; effluvium
śálâ?	vowel (< Thai)
ò-ší-pá	pronunciation
(ò-)šē-phâ	owner; doer of an action
ò-śá(-pa)	color
ò-yân	time
(ò-)vê?	flower; decorative object
(ò-)lī	custom; rule
là?-śa	right hand
lī?	something written
ò-le(-mô)	last one; end
ò-lon	story; matter; thing

(66) Verbs²⁹

qôʔ	say
qay	go
kɔ̃	pile up
kə	put in; insert
khòʔ	mix
ga	help
gu	prepare; fix
ŋá	open wide
cú	pucker
cò	have; be there
cí-nòʔ	be connected; tightly attached to
che	protrude; stick out
chêʔ	break; sever
tàn	begin; start
tī	fix in place; restrain
te	do; make
têʔ ni	test; measure and see
dô	think; plan
ní	press; squeeze
pa	change
pā	turn around; switch position
pə	send
pə	finish ³⁰
phêʔ	be; become
pho	open
phəʔ	reveal; unwrap
bà	throw away
bùʔ	write
bîʔ	push; jostle
mā	teach
mɛ	name (v.)
mò	see
mì	do; work
hên	study (< Tai)
hêʔ	be the case

²⁹ Those listed in Table 1 are not repeated here.

³⁰ This verb occurs in the construction *tê* + CLF + *pə* + *tê* + CLF ‘one Clf after another’.

ġa	get; obtain
ġàʔ	chase; drive
š̌	consider; arrange; select
ši	die
yàʔ	violate; do wrong
yù	take
yê	use
yɔ	speak
là	come
lɛ	come last; be the last; be late
ló	be extra; left over (< Tai)
lôʔ	choose (< Tai)

(67) Adjectival verbs

i	little
ī	big
kè	pure
gò	cold
ɲɛ	short
tì	turbid
nâʔ	black
nû	soft
nê	near; close to
nè	low
pī	old (of objects)
phī	flat
mâ	many; numerous
mu	high
mô	old (of people)
hɛ	hard
ġó	round
yì	long
vî	far

(68) Versatile verbs

a. Pre-head

qòʔ	V again; V back
tàn	begin to V

g̃a	must V; get to V
yù	take and V; cause to V
b. Post-head	
qay	keep on V'ing
ci	cause to V
cí	V so it sticks; continue to V
chê?	V once and for all
tô?	V out
pí	able to V (intrinsic ability)
pə	send V'ing
phê?	able to V (favorable circumstances)
bà	V away; get rid of by V'ing
mā	teach to V
mì	V habitually; have used to V
hā	difficult to V
g̃a	able to V (by dint of effort)
gà?	chase and V; chase in order to V

(69) elaborate expressions

a. nominal

ò-khò-ò-lí	correspondence
ò-pâ-ò-ki	environment
ò-ví-ò-ni	siblings
khô-mu-khò-nè	tones
chò-phô-ô-phô	here and there; everywhere
chò-lí-vâ-lí	people's customs
te-khò-phê?-khò	verb
te-tô-phê?-tô	verb
tô-pí-tô-mô	protolanguage
tô-pôn-khò-pôn	compound
tô-vê?-khò-vê?	elaborate expression
phê?-tô-te-tô	adjectival verb
fī-khò-pè-khò	phoneme
fī-tô-pè-tô	phoneme

b. verbal

te-mì-te-cí	regular
fī-dà?-pè-dà?	distinguish
lê?-kə-lê?-bà	optional

lǎʔ-ǵa-bà-ǵa	optional
c. adverbial	
lǎʔ-cí-lǎʔ-há	immediately
(70) Adverbs	
a-cí	a little bit
à-qhe-lê	for nothing; for free
qha-pè	completely
qhà-qhe	how
cú è	puckered; pointed
tèʔ-chí	nothing
phī è	flat
mā	not
(71) Numerals	
tê	one
nî	two
šêʔ	three
láy	several (< Tai)
(72) Classifiers	
khô	for halves
khi	for moments
côʔ	for strips
cà	for things, kinds
tò	for sections
phā	for totalities
mà	(general)
(73) Particles	
a. Noun particles	
thàʔ	accusative
lo	locative
b. Verb particles	
á	perfective
kì	locative nominalizer
tā	perfective
tù	irrealis

dâʔ	reciprocal; mutual
pā	agentive nominalizer
c. unrestricted particles	
cɛ	only; to the extent that
tí	only
têʔ	quotative
thô	even; also; although
yò	affirmative; declarative
le	substance interrogative (wh- question marker)
lɛ	conjunctive; suspensive

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使用本地詞彙爲少數民族語言增添技術新詞

馬蒂索夫

加州大學柏克萊分校

近年來有好幾位拉祜族學生在泰國清邁西北大學 (Payap University) 進修語言學碩士。但由於拉祜語（像多數其他的少數民族語言）缺乏語言學的技術詞彙，討論語言學的時候通常用英語或泰語。

面對著這種問題，很多語言以借貸多數語言的技術詞彙爲解決方法。分布在好幾個國家的拉祜語已吸收了從漢、緬、撣、北泰、標準泰、老撾和越南語言的借詞。在這個複雜的情況之下，很難決定拉祜語究竟應該從那些語言借貸技術語，所以我認爲最好的方法是盡量用拉祜語的固有詞根製作這種詞語。

爲了實現這個目標，我最近與一位泰國西北大學的拉祜族學生合作，發展語言學方面的技術詞彙。到目前爲止，我們已經提出了幾百個新詞語，這些詞語多數在語音學範圍裡面。我們往後將會集中精神於語法形態和歷史語言學方面。本文討論製作新技術詞語所涉及的問題，並列出至今提出的詞語。

關鍵詞：拉祜語，新詞，技術詞彙，詞彙學，比喻延伸

Typology of Generic-Person Marking in Tshobdun Rgyalrong*

Jackson T.-S. Sun

Academia Sinica

All languages have expressions that refer to the generic person (GP), or ‘people in general’. This paper investigates from a typological perspective GP-representation in Tshobdun Rgyalrong, a morphologically complex Sino-Tibetan language spoken in Sichuan. Tshobdun marks GP predominantly with cross-linguistically the least common GP-encoding device, namely dedicated verbal morphology evolving from erstwhile nominalizers. The integration of GP into the inflectional person category as a ‘fourth person’ is a manifestation of the remarkable prominence of humanness marking in Rgyalrong grammar.

Key words: Sino-Tibetan, Rgyalrong, morphosyntax, generic person, verbal person-marking

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1. Introduction

All languages make use of generic statements that depict the participation of the general body of humans, or a loosely defined subset thereof, in an event. In English, reference to the *generic person* (hereafter: GP) is by generic nouns (*men, mankind, people*), the generic pronoun *one*, and ordinary personal pronouns used impersonally, e.g. *we, you*, and (excluding speaker and addressee) *they*.¹

- (1) a. *It is amazing what PEOPLE can get used to.*
- b. *ONE must free ONESELF from stereotyped opinions.*
- c. *WE/YOU can never be too careful with chemicals.*
- d. *THEY don't allow handguns in Chicago.*

However, universal reference to ‘people in general’ commonly goes unstated in English non-finite constructions. The missing semantic argument is symbolized here with \emptyset :

- (2) a. \emptyset *Seeing is \emptyset believing.*
- b. \emptyset *To be or \emptyset not to be: that is the question.*

Another method of realizing GP is via verbal inflectional morphology. It will be the goal of this article to explore from a typological perspective this particular GP-marking strategy in Tshobdun Rgyalrong (hereafter Tshobdun), a morphologically complex Sino-Tibetan language of northwestern Sichuan.²

An overview of Tshobdun morphosyntax (§1.1) and a survey of the cross-linguistically attested strategies for GP representation (§1.2) serve as our point of departure. Against this backdrop, §2 examines in detail how GP is realized in the target language, with a focus on encoding GP by verbal prefixal morphology. Special efforts are made to tease the non-nominalizing, GP-marking function apart from the various

¹ The term ‘impersonal’ is open to a number of interpretations in linguistics: (a) zero-valency, as in *It is hot here*; (b) non-canonically marked A/S, as in Middle English *me thinketh* ‘it seems to me’; and (c) generalized human reference (Siewierska 2004:§5.5). Only the third sense of the term is intended in this article.

² The name ‘Rgyalrong’ actually denotes several closely related but distinct languages (which in my earlier publications were called ‘dialects’): Situ (Eastern), Japhug (Northeastern), Tshobdun (Northwestern) and Showu (Western). The Tshobdun data under analysis here represent the speech of *qec^hweri?* Village in Tshobdun Township, Ma’erkang County, Aba Prefecture, Sichuan Province. See J. Sun (2003) for a brief description of Tshobdun Rgyalrong, and Jacques (to appear) for an overview of the Rgyalrong cluster of languages.

nominalizing uses of these prefixes. Following a typologically common tendency, GP-marking in Tshobdun is further integrated into the person system by allowing an extended first person reference. This is discussed and exemplified in §3. An excursus is made in §4 into comparative data in the Rgyalrong language group and beyond in order to elucidate the historical evolution of Tshobdun GP-markers from nominalizers. The concluding section sums up our findings and discusses the typological significance of inflectional GP-marking in Rgyalrong grammar.

1.1 Typological overview

Tshobdun has a highly complex grammar that is characterized by strong head-marking tendencies, agglutinative morphology with some degree of fusion, preference for prefixes over suffixes, and extensive stem alternation. The syntax is head-final with pragmatically determined variations. The major word classes are nouns, verbs, ideophones, and particles. Property words form a subclass of verbs. Nominal inflectional categories include number, case, and possession. Dependent case marking is not well-developed and subject to ellipsis when the absence of case markers does not cause ambiguity. Verbs undergo abundant derivational processes via prefixes that alter lexical categories or manipulate argument structure. With a few exceptions, verbs are rigidly sub-classified as either transitive or intransitive. Inflectional categories coded on the verb comprise person, direction (direct vs. inverse), orientation (topography-based spatial deixis), transitivity, tense-aspect, and evidentiality. Person-number marking is dictated by a hierarchical, empathy-based system. Non-finite verb forms abound in dependent clauses. Despite its (weakly) ergative nominal case marking, the language exhibits an accusatively aligned system of grammatical relations, with a S/A subject and a primary object (Dryer 1986). The internal syntax of relative and complement clauses exploits deverbal nominalization to a high degree. Several types of nominalized structures are distinguished, and they vary in degrees of deverbalization and nominalizing scope (lexical vs. clausal) (J. Sun 2012).

1.2 Typology of GP-marking strategies

A number of strategies are cross-linguistically utilized for GP realization. The generic person may simply be unstated (zero strategy), represented by lexical forms (lexical strategy), or instantiated by the verbal morphology (morphological strategy).

1.2.1 Zero strategy

GP can be implicit, in which case the meaning has to be recovered from context. This is the normal strategy used pervasively in many Sino-Tibetan languages (3), and in non-finite structures across Indo-European languages (4):

(3) a. **Mandarin Chinese**

Ø chǔlǐ huàxuéwù Ø yào juéduì xiǎoxīn
GP handle chemical GP must absolutely be.careful
‘One must be absolutely careful when one handles chemicals.’

b. **Mawo Qiang** (own fieldwork data)

nə-χtʃə Ø ma-ki-ni ɿi
person-debt GP NEG-carry-SEQ be.rich
rgi-nə ma-zi-ni aʃi
be.ill-NMLZ NEG-exist-SEQ be.happy
‘To be rich is not to carry debt; to be happy is not to have a sick family member [Qiang proverb].’

c. **Dulong** (HK Sūn 1982:164)

Ø ǎŋbū lāi-sā-ǎjā mā-túɛà
GP rice plant-NMLZ-DET NEG-be.difficult
‘It is not hard to plant rice.’

(4) a. **German**

Ø *Betreten des Rasens verboten*. ‘Keep off the grass.’

b. **French**

Il faut Ø le faire. ‘It is necessary to do it.’

1.2.2 Lexical strategy

Generic person is very commonly expressed lexically by a generic noun or a generic or personal pronoun.

1.2.2.1 Nominal representation

The generic person is represented by a generic human noun usually meaning ‘person’ or ‘people’ (e.g. English *people*, Spanish *la gente*, *el hombre*, Chinese *rén* ‘person’), but not always.³ In some languages, the overt use of a generic human noun is avoided

³ Manambu uses a compound composed of ‘man’ and ‘woman’ (Aikhenvald, personal communication in 2008).

except where the intended meaning is under contrastive focus. In the following Classical Chinese example, the generic human noun *rén* occurs in contrast with *shuǐ* ‘water’:

(5) **Classical Chinese** (The Works of Mencius 6.1)

rén xìng-zhī shàn yě yóu *shuǐ*-zhī jiù xià yě
man nature-GEN be.good DM be.like **water**-GEN go down DM
 ‘Man’s nature is naturally good, just as water naturally flows downward.’

1.2.2.2 Pronominal representation

The generic person is represented by a *generic pronoun* (e.g. English *one*, French *on*, German *man*) or a *personal pronoun used impersonally* (e.g. English *we*, *you*, *they*). The preferred cross-linguistic choices are first and second person non-singular forms. The extended impersonal usage of personal pronouns constitutes a prevalent GP-marking strategy found in many language families. Further examples of such pronouns are the indefinite third-person pronoun *kee*: in Khmer, and the first-person inclusive pronoun *ee* in Jarawara:

(6) **Khmer** (Mon-Khmer: Southeast Asia; Haiman 2011:§1.6.3)

Kha:ng kaeut cungruk kee: khu:nj mian ando:ng teuk muaj
 side east granary 3 see exist well water one
 ‘East of the granary, one could see a well.’

(7) **Jarawara** (Arawá; Brazil and Peru; Dixon 2004:77)

Ee kaba-tee awa
 1NSG.INCL eat-HABITUAL seems.MASCULINE
 ‘Does one eat it?’

1.2.3 Morphological strategy

GP is encoded morphologically, usually via verbal inflection. GP-marking is carried out either through existing morphological categories or specialized forms dedicated to this particular function.

1.2.3.1 Exploiting existing morphological categories

GP-marking is an extended function of morphological categories already operating in the grammar, typically of the reflexive or passive types, as in the Spanish *reflexive*, the Kham *imperfective passive*, and the Tariana *passive of active intransitive*:

- (8) **Spanish** (Siewierska 1984:174)
Se vive bien en América
 REFL live:PRS:3SG well in America
 ‘One lives well in America.’
- (9) **Kham** (Sino-Tibetan: west-central Nepal; Watters 2002:251)
giddə syakəri ma-kəi-si-i
 vulture meat NEG-eat-DETRANS-IPFV
 ‘One doesn’t eat vulture meat (lit. Vulture meat is not eaten).’
- (10) **Tariana** (Arawak: northwest Amazonia; Aikhenvald 2003:261)
nha nawiki ma:-kana-wani-se-pidana
 they people NEG+go-PASS-CL:ABSTR-LOC-REM.P.REP
 ‘It was a place where people do not go.’

1.2.3.2 Dedicated GP-marking morphology

Coding GP by specialized morphological material, this strategy is typologically least common and hence most interesting. The Finnish *impersonal inflection*, the Tariana *impersonal*, the Matses *antipassive*, and the Navajo *fourth person*, are illustrative:

- (11) **Finnish** (Finno-Ugric: Northern Europe; Blevins 2003:487)
Suomessa ollaan niin totisia
 Finland:INES be:IMPRS:PRES so serious:NOM:PL
 ‘In Finland, we/they/people are so serious.’
- (12) **Tariana** (Arawak: northwest Amazonia; Aikhenvald 2003:127)
hiku-nha pa-ni pa-inu pa-ñha-ka tfari
 be.like.this-PAUS IMPRS-do IMPRS-kill IMPRS-eat-REC.P.VIS man
 ‘Men (in general) hunt and eat like this.’
- (13) **Matses** (Panoan: Peruvian and Brazilian Amazon; Fleck 2006:559)
aid opa pe-an-e-k
 that.one dog bite-ANTIP-NPAST-INDIC
 ‘That dog bites (people, among other readings).’
- (14) **Navajo** (Southern Athabaskan, southwestern United States; Willie 1991:119)
’abini=go hojitaal=go yá’át’ééh
 morning=while 4.sings=while 3.good
 ‘It is good for one to sing in the morning.’

1.2.4 Interaction among multiple GP-marking strategies

The boundaries between various strategies for generic-person representation are often fuzzy, since generic nouns tend to develop into pronominal forms, and eventually into bound verbal affixes.⁴ The Yaqui object GP prefix *yée-*, stemming from the generic noun *yo(r)éme* ‘person’, supplies an example:

- (15) **Yaqui** (Uto-Aztecan; Sonoma State, Mexico; Arizona; Dedrick & Casad 1999)
miísi yée-súke?
 cat GP:OBJ-scratch
 ‘A cat scratches people.’

Another striking example is found in Taiwanese Southern Min, where a phonologically reduced variant of the generic noun *lan*²⁴ ‘person’ fuses with a preceding agentive or patientive coverb, resulting in monosyllabic morpheme complexes; compare (16a) with (16b), and (16c) with (16d):

- (16) **Taiwanese** (Southern Min; Sinitic; Taiwan)
- a. *i*³³ *e*²¹ *ka*²¹ *lan*²¹ *p^ha*²³¹
 3SG will COVERB:PAT people beat
 ‘He will beat people.’
 - b. *i*³³ *e*²¹ *kaj*²¹ *p^ha*²³¹
 3SG will COVERB:PAT:GP beat
 ‘He will beat people.’
 - c. *i*³³ *e*²¹ *ho*²¹ *lan*²¹ *p^ha*²³¹
 3SG will COVERB:AGT people beat
 ‘He will be beaten by people.’
 - d. *i*³³ *e*²¹ *hoj*²¹ *p^ha*²³¹
 3SG will COVERB:AGT:GP beat
 ‘He will be beaten by people.’

Stacking of GP expressions is acceptable in some languages, as seen in the Tariana sentences (10), (12) and the Tshobdun Rgyalrong example (18) below.

⁴ An example of a generic noun that has so evolved is the French generic pronoun *on*, which is grammaticalized from the generic noun *homme* ‘human being; person’ (reflecting the accusative singular form *hominem* of Latin *homo*). I thank one of the reviewers for pointing this out to me.

When more than one strategy of GP-marking occurs in a single language, the strategies often display functional differentiation. For example, Chinese allows nominal and zero realizations of GP in S/A function, but requires the GP in O function to be instantiated by the generic noun *rén* ‘person, people’:

- (17) **Mandarin Chinese**
*zhè-zhī gǒu huì yǎo *(rén)*
 this-CL dog will bite **people**
 ‘This dog bites people.’

2. GP expression in Tshobdun

2.1 Nominal GP representation

The word for ‘person, human’ *kərⁿbjoʔ* occurs in generic statements referring to mankind as opposed to deities or animals, as in:

- (18) *kərⁿbjoʔ kə-set tʰozʔ ʃteʔ*
people GP-die be.the.rule be:EMPH
 ‘All men die.’
- (19) *cʰəɣjaʔ=kə kəmɲem kərⁿbjoʔ tʰeʔ*
 bull=ERG often **people** gore₃
 ‘A bull often gores people.’

Consider (20) in contrast with (21):

- (20) *kərⁿbjoʔ kə-ⁿdzətʰi=nəʔ reʔ ʃteʔ*
people GP-dine=SUB be.necessary be:EMPH
zɔʔ nərɯ=nəʔ reʔ ʃteʔ
 bovine graze=SUB be.necessary be:EMPH
 ‘Humans must eat; bovines must graze (Proverb).’
- (21) *(??kərⁿbjoʔ) kə-ⁿdzətʰi=tsə tʰe=re ʃteʔ*
people GP-dine=TOP:EMPH CONT:LTR-be.necessary be:EMPH
qʰónə stʰɔre ʃə-ⁿdzəqʰónə=kə
 SEQ:EMPH first AND-dine-1PL=DM
 ‘People must eat, so let’s go eat first.’

Unlike (20), an objective statement about people and bovines in general, (21)

specifically includes the speaker and the addressee within the set of possible referents, hence the exhortative verb form in the second clause. In such ‘subjective impersonal’ sentences, the use of the generic noun is disfavored. Likewise, sentence (19) above would be uttered as an objective, non-committal statement, whereas if the speaker wishes to make a generalized assertion based on subjective personal experience, a verb form inflected for GP person (see further on) occurs instead:

- (22) *ko? cʰəɣja? kəmɲəm kə-oy-tʰu?*
 this bull often GP-INV-gore
 ‘This bull often gores people (I know from personal experience).’

Thus, the functional range of the lexical strategy or the use of the generic noun ‘person, human’ is rather restricted.

2.2 Morphological GP representation

This is the predominant strategy for expressing the generic person in Tshobdun Rgyalrong. Involvement of generic human participants must be registered on the verb with the derivational prefix *sə-*, and the inflectional prefixes *kə-*, *kə-*, and *sə-*.

2.2.1 The antipassive *sə-*⁵

Unlike English or French, in which transitivity can be reduced by a ‘patientless antipassive’ strategy (Humphreys 1999, Dixon & Aikhenvald 2000:10) that simply suppresses the object (e.g. *Have you eaten? He drinks all day; Ce chien, il mord*), in Tshobdun covert generic patients must be marked on the verb with derivational antipassive morphology as part of the valency-decreasing derivations in the language, much as the Matsigenka detransitivizing strategy shown in (13) above.⁶ In the example below, the main-clause verb *znəne* ‘stop’ is complemented by an infinitive intransitive verb carrying an antipassive prefix *sə-* which signals demoted [+HUMAN] generic patients:

⁵ The GP-marking antipassive *sə-* prefix is to be kept distinct from the homophonous *oblique participant nominalizing* (e.g. *sə-n dzətʰi* ‘dining place’ < *n dzətʰi* ‘dine’), *converb* (e.g. *sə-χəχe* ‘happily’ < *χe?* ‘be happy’) as well as propensity stative (e.g. *sə-rə* ‘be laughable, amusing’ < *rə* ‘laugh’) uses of *sə-*. See, however, Jacques’ (2014) view that the Rgyalrong antipassive prefixes are grammaticalized out of formally identical denominal prefixes.

⁶ For a systematic treatment of valency decreasing derivations in Tshobdun, see J. Sun (to appear: §34.3.1.2).

- (23) *kə-sə-nékʰoj* *ətə-tə-znəvə*
 INF-ANTIP-bully IRR:IMP-2-stop₃
 ‘Stop bullying *people*!’

In a related usage, the prefix *sə-* transforms a transitive action verb into a stative one meaning ‘have a propensity for V-ing (people)’. Likewise, the unexpressed object of this derived intransitive verb must be [+HUMAN]. The following sentence exemplifies one such stative propensity verb *sə-χsu* ‘be prone to gore or bite (people)’ derived from *χsu* ‘gore; bite (as of pigs)’:

- (24) *tə-ʰdzaŋ* *ʰdenəʔ* *koʔ* *pa* *səχsu*
 IMP-be.careful for this pig be.proned.to.bite(people)
 ‘Be careful, this pig bites people.’

2.2.2 Generic-person inflection

The verbal prefixes *kə-*, *kə-*, and *sə-* are among the most versatile grammatical morphemes in the language, serving a wide range of uses. Their core morphosyntactic function is to derive various types of verbal nominalizations. In Tshobdun, these prefixes have developed a disparate *GP-marking function*. This non-nominalizing function must be carefully teased apart from the various nominalizing uses of these prefixes.

2.2.2.1 Nominalizing function of prefixes *kə-*, *kə-*, *sə-*

Tshobdun makes extensive use of *kə-*, *kə-*, and *sə-* to form distinct clausal nominalization types which function as deverbal nominals and various subordinate clauses. The required nominalizers and syntactic functions of these nominalization types are summarized in the table below:⁷

⁷ Semantically defined classes of complement-taking predicates play an important role in determining the selection of appropriate complementation structures (J. Sun 2012).

Table 1: Tshobdun nominalization types, functions, and selected prefixes

NOMINALIZATION TYPE	SYNTACTIC FUNCTION	VERBAL PREFIX
Participant nominalization	Deverbal nominals referring to arguments of source verbs	(subject) <i>kə-</i> (object) <i>kɐ-</i> (oblique) <i>sɐ-</i>
Gerund (action/state) nominalization	Citation form of verbs; Verbal complement clauses	[–HUMAN] <i>kə-</i> [+HUMAN] <i>kɐ-</i>
Infinitival nominalization	Converbs; Nominal complement clauses; Verbal complement clauses	<i>kɐ-</i>
Purposive (supine) nominalization	Adverbial purposive clauses	<i>kə-</i>
Finite nominalization	Verbal complement clauses	<i>kə-</i>

Table 1 shows that the distribution of nominalizers is determined by nominalization types, grammatical relations, as well as semantic factors. It is important to note that, as pure nominalizers these prefixes are accessible to clauses with both [–HUMAN] and [+HUMAN] arguments, seen in the following examples of the various nominalization types tabulated above:

(25) **Participant nominalization**

a. [+HUMAN]

kə-nⁿgi? ‘sick person; patient’ (< *nⁿgi?* ‘be ill’)

kɐ-nⁿdze ‘food’ (< *nⁿdze* ‘eat’)

sɐ-nⁿdzɛt^{hi}i ‘restaurant’ (< *nⁿdzɛt^{hi}i* ‘dine’)

b. [–HUMAN]

kə-c^{hi}? ‘sweets (lit. sweet one)’ (< *c^{hi}?* ‘be sweet’)

sɐ-rɛlɔ? ‘place for nesting’ (< *rɛlɔ?* ‘use as nest’)

(26) **Gerund (action/state) nominalization**

a. [+HUMAN; +DYNAMIC]

kɐ-vɛr ‘become afraid’ (< *vɛr* ‘be afraid’)

kɐ-nⁿgu ‘becoming poor’ (< *nⁿgu* ‘be poor’)

b. [+HUMAN; –DYNAMIC]

kə-nⁿgu ‘being poor’ (< *nⁿgu* ‘be poor’)

c. [–HUMAN]

kə-nəŋe ‘coming into estrus (as of female bovines)’ (< *nəŋe* ‘come into estrus’)

kə-vər ‘being moldy’ (< *vər* ‘be moldy’)

(27) **Infinitival nominalization: converbs**

a. [+HUMAN]

tʃɛlə kdenbe mɛ-kɛ-tsə o-vzər ʃə-tə-ɐmdzu? = cə
 anything at.all NEG-NMLZ:INF-say 3SG:POSS-side AND-PFV-sit₂=MED
 ‘Not saying anything, (he) went over and sat down by his side (Wild Man Saved a Pilgrim, 9).’

b. [-HUMAN]

kəxsɛ kdenbe mɛ-kɛ-ⁿgor? nəosɛfsət
 leopard at.all NEG-NMLZ:INF-roar like.that
kəxtʃipu-p^ha kɛ-rjuɣ? nə-wɛ?
 small.child-direction NMLZ:INF-run PFV:WEST-come₂
 ‘Not uttering a roar at all, the leopard came running toward the small child.’

(28) **Infinitival nominalization: nominal complements**

a. [+HUMAN]

tʃ^həndu? ⁿge-kɛ-fɛ nɛ-qɛ ʃ-to
 Chengdu DOWN-NMLZ:INF-go 2S:POSS-free.time Q-exist
 ‘Do you have time to go to Chengdu?’

b. [-HUMAN]

pɣétʃu tə-kə-smê-t=nə? o-kɛrⁿdzem
 bird PFV-NMLZ:SBJ-be.wounded₂=DET 3SG:POSS-wing
kɛ-sɛp^hor o-fet-rɛn nə-mɛ? = cə
 NMLZ:INF-flap 3SG:POSS-strength-even PFV-not.exist₂=MED
 ‘The wounded bird didn’t even have the strength to flap its wings.’

(29) **Infinitival nominalization: verbal complements**

a. [+HUMAN]

kɛ-rge tə-tɐ-je-ⁿdzə
 NMLZ:INF-like PFV-1>2-begin₂-2DL
 ‘I have begun to like you two.’

b. [-HUMAN]

kəməq^hu-nə? tɛk^huɣa o-jən? kɛ-ⁿdʒɔ te-je
 afterwards-ADV opium 3SG:POSS-yen NMLZ:INF-cling PFV:TR-begin₂
 ‘Afterwards, a yen for opium began to take hold (How Opium Came to Our Land, 20).’

(30) **Purposive nominalization**

a. [+HUMAN]

v-kə-q^hro *ɕjə-tə-wi*
 1SG:POSS:OBJ-NMLZ:PURP-meet IRR:IMP-2-come
 ‘Come and meet me!’

b. [-HUMAN]

q^ho? *ʃórⁿge* *jərmə*
 SEQ midnight about
qɕje *kəta?* *ⁿbréⁿdʒi* *kəⁿdze* *jə-wɛ?²=cə*
 tiger really horse.skin NMLZ:PURP-eat PFV-come₂=MED
 ‘And, at around midnight, the tiger really came to eat the horse’s skin
 (The Rangdzem Family Killed a Tiger, 12).’

 (31) **Finite nominalization**

a. [+HUMAN]

ko? *tɛlɲa?* *pəʃk^ho-ntʃ^hon* *mə-kə-rⁿgu=nə?* *sɛrɛ=cə*
 this child now-even NEG-NMLZ-go.to.bed=DET be.funny=MED
 ‘It is funny that this child hasn’t gone to bed even now.’

b. [-HUMAN]

qərtsu *t^he-zyot=ntʃon* *prɛ?* *mə-kə-zgom=nə?* *mə-tʃ^hoz?*
 winter TEL-arrive=even bear NEG-NMLZ-hibernate=SUB NEG-be.the.rule
 ‘It is unexpected for bears not to go into hibernation when winter arrives.’

 2.2.2.2 Person-marking function of prefixes *kə-*, *kə-*, *sə-*

In an extended, hitherto under-explored *impersonalizing* usage, the prefixes *kə-*, *kə-*, and *sə-* serve a person-marking rather than nominalizing function, introducing a human argument to a clause expressing a generic statement. Unlike in their various nominalizing uses seen in the previous section, the occurrence of the impersonalizers *kə-*, *kə-*, and *sə-* is restricted to sentences predicating states and activities of *generic human subjects*. In the following example, impersonal meaning is conveyed by *kə-* in (32a); without this prefix, the conditional clause would have a non-generic, *referential* reading (32b):

- (32) a. *támɛ=p^ha* *kə-nəmts^hɛnɲəy?²=nə?*
 woman=place GP-visit.girl.at.night=SUB
zde *tərmə=ntʃ^hon* *o-ʒəv?* *ɛnɛ-ʃɛ* *rɛ?*
 other person=also 3SG:POSS-heart IRR-go be.necessary
 ‘When *one* visits a girl at night, the other person (i.e. the girl) has to be willing too.’

- b. *támɛ=p^ha nəmts^hɛnɲəɣʔ=nəʔ*
 woman=place visit.girl.at.night=SUB
zde tərɲɛ=nt^hon o-ʒəvʔ ɛnɛ-fɛ reʔ
 other person=also 3SG:POSS-heart IRR-go be.necessary
 ‘When *he* visits a girl at night, the other person (i.e. the girl) has to be willing too.’

The following examples illustrate the contrast between the impersonalizers *kə-* and *kɛ-*:

- (33) *naʔ=nəŋ ɛnɛ-kə/*kɛ-nkulu=nəʔ*
 forest=inside IRR-GP-be.lost=SUB
*st^hɔre=nəʔ ne-kɛ/*kə-nɛⁿgozⁿgəzⁿge t^hozʔ*
 first=DET IMP-GP-call:RDPL be.the.rule
 ‘If one gets lost in the forest, one should first call repeatedly for help.’
- (34) *koʔ tɛwaʔ kə-lɛn ɛnə-kɛ-t^hi=nəʔ*
 this liquor NMLZ-be.much IRR-GP-drink=SUB
ʃla kə-lɛʔ ʃteʔ
 immediately GP-be.drunk be:EMPH
 ‘If one drinks too much of this liquor, one quickly gets drunk.’

It is clear from the preceding examples that the opposition between these prefixes is semantically based: *kɛ-* is associated with events that involve sentient, volitional human S/A subjects (‘visit (a girl) at night’, ‘call’, ‘drink’) whereas *kə-* is associated with events that do not (‘lose one’s way’, ‘be drunk’). The impersonal prefixes *kɛ-* and *kə-*, therefore, represent respectively *volitional* and *non-volitional* generic human subjects.

The third GP-marking prefix *sɛ-* occurs with copular verbs, for example:

- (35) *c^hezʔ kə-ⁿgu=cə nɛ-sɛ-ʃte*
 formerly NMLZ:SBJ-be.poor=INDF IPFV:PST-GP-be₂:EMPH
 ‘I (lit. ‘one’) used to be a poor man.’

Solid syntactic evidence confirms that in this particular use the three prefixes are true inflectional person markers and, despite the formal identity, are by no means nominalizers.

First, these prefixes cannot appear if the clause already contains an overt referential subject, as in (36) below. Contrast this example with properly nominalized clauses such as (37), where the true nominalizer *kə-* co-occurs freely with the clausal subject *kréfi=ni*:⁸

⁸ Verbal morphology also provides an important clue: certain verbal inflectional categories are neutralized in a true nominalized clause. Notice the obligatory absence of person-number marking in example (37).

- (36) *kréfi=ni te-(*kə-)nⁿgi? dzə=nə?*
 Krashi=DL TEL-(*GP-)be.ill-3DL=SUB
smənk^haŋ vjə-tə-tsom?
 hospital IRR-2-take.thither
 ‘If Trashi and the other person become ill, take them to the hospital.’
- (37) *kréfi=ni ték^hu te-kə-ski?*-ⁿdzə mə-vde*
 Krashi=DL cigarette TEL-NMLZ-smoke-*3DL NEG-be.good
 ‘It is not good for Krashi and the other person to smoke.’

Second, the nominalizing prefixes *kə-* and *kə-* are accessible to both [–HUMAN] and [+HUMAN] subjects, as demonstrated in §2.2.2.1. However, as personal markers these prefixes are disallowed in generic clauses with *non-human* subjects:

- (38) *qəper? kə zə? ⁿge-(*kə-)mɣə=nə?*
 dhole=ERG bovine TEL-catch₃=SUB
*st^hɔre ó-ʃqor kə-ⁿdze te-(*kə-)səjə? ɣo?*
 first 3SG:POSS-rear.end INF-eat TEL-begin be
 ‘When dholes catch a bovine, they begin eating it from the rear end.’
- (39) *tərmók^he zⁿdim? ne-(*kə-/kə-)qəryə? nən?*
 dusk cloud TEL-be.yellow=SUB
nəofsəfsi təmu lət t^hoz?
 next.day rain release be.the.rule
 ‘When clouds become yellow at dusk, it will rain the following day.’

The following examples are particularly revealing, where *kə-* occurs in the clauses with a human subject (‘one’), but is absent in the clauses with non-human subjects (‘death’, ‘hog badger’):

- (40) *tə-kə? ta scəzdəy? ⁿge-(*kə-/kə-)bəv? sc^hənə?*
 GP:POSS-head=top death TEL-fall=SUB:EMPH
tə-rfe te-kə-səsəy? re?
 GP:POSS-efforts TEL-GP-tighten be.necessary
 ‘When deaths befall (one’s family members), one must toughen up.’
- (41) *ɣvez kə-səⁿdze ɛnə-(*kə-/kə-)c^hə=nə?*
 hog.badger INF-bite.(people) IRR-be.able=SUB
ⁿge-kə-nt^he=nt^hon mə-tə? t^hoz?
 TEL-GP-kill=even NEG-let.go₃ be.the.rule
 ‘If (a hog badger) manages to bite people, it does not let go even after one has killed it (How to Kill Badgers in Our Country, 20).’

The status of the prefixes in question as inflectional person markers receives further corroboration in their interaction with verbal inverse marking, one of the hallmarks of the empathy hierarchy in Rgyalrong grammar (Ebert 1987, J. Sun & Shi 2002:§2.3). Since they index an arbitrary human argument, inverse marking is required in sentences describing inverse situations, for instance in this sentence about poisonous mushrooms causing people to become ill or die:⁹

- (42) *téjmoɣ* *o-təɣ?* *kə-to?* *te-kə-ⁿdze=nə?*
 mushroom 3SG:POSS-poison NMLZ:SBJ-exist TEL-GP-eat=SUB
ko-sənⁿgi? *mékəts^hət* *enə-t^hu=nə?* *ko-nt^he* *t^hoz?*
 GP:INV-cause.to.be.ill not.only IRR-be.serious=SUB GP:INV-kill be.the.rule
 ‘If one eats poisonous mushrooms, one is made ill or is even killed if it is serious.’

The generic-person markers *kə-*, *kə-*, and *sə-* comprise a paradigm with the other inflectional person markers of the language, occupying the same morpheme slot as the other prefixal person indexes. As markers of what is effectively ‘the fourth person’, they always combine with a distinct verb stem (STEM1 or verb base), and even boast a unique, corresponding nominal possessive form *tə-* seen earlier in example (40), repeated below as (43):¹⁰

- (43) *tə-ko?*=*ta* *scəzdəɣ?* *ⁿge-ⁿbəv?=sc^hənə?*
 GP:POSS-head=top death TEL-fall=SUB:EMPH
tə-r^fe *te-kə-səsəɣ?* *re?*
 GP:POSS-efforts TEL-GP-tighten be.necessary
 ‘When death befalls (one’s family members), one must toughen up.’

The following table of (singular) personal pronouns, all consisting of possessed forms of *-ji?* ‘self’, bears witness to the integration of the generic nominal possessive prefix

⁹ The GN prefix *ko-* here is a fusion of the GN prefix *kə-/kə-* and the inverse prefix *o(y)-*.

¹⁰ It is useful to contrast the Rgyalrong ‘fourth person’ (i.e. generic person) with what is called ‘fourth person’ in Athabaskan languages. In Navajo, for example, ‘fourth person’ forms, as in Rgyalrong, constitute a paradigm with the other person forms, take the form of verbal prefixes, and serve predominantly to denote ‘people in general’. However, Navajo fourth person forms also have other distinct functions not found in Rgyalrong, such as marking disjoint reference across clauses, referring deictically to a third person in her/his presence (required by politeness etiquette in Navajo society), and focusing on the reported events under sentence focus (Willie 1991:§4).

tə- into the person system:¹¹

Table 2: Tshobdun system of singular personal pronouns

1 st	<i>ɛ-jiʔ</i> ‘I’
2 nd	<i>nɛ-jiʔ</i> ‘you [SG]’
3 rd	<i>o-jiʔ</i> ‘he/she’
4 th (generic person)	<i>tə-jiʔ</i> ‘one’

3. First-person reading of GP-marking prefixes

Generic-person verb forms sometimes acquire a referential reading, replacing first-person non-singular forms in such languages as French and Kiranti (Siewierska 2004:211, Ebert 1994:28-29). In the following example from Limbu (Eastern Kiranti, Tibeto-Burman family), the word *yapmi* ‘man, person, someone else’ is used as a pronominal, representing a 1st-person plural exclusive argument (Michailovsky 2001:148):

- (44) **Limbu** (Mewa/Maiwa dialect)
anigɛ nurik mɛmɛttigɛ-aŋ ciṯṯṯi yapmi mɛhakte
 1PL:EXCL well do:3PL>1PL:EXCL-and letter 1PL:EXCL:PAT send:3PL
 ‘They treated us well and they sent us letters.’

Likewise, the generic subject pronoun *on* in French is often used in place of a first-person plural (45a) and a second-person plural (45b):

- (45) **French** (example courtesy of Elizabeth Zeitoun)
 a. *Viens, on va mang-er dehors!*
 come:IMP:2SG **one** go:IMP:2SG eat-INF out
 ‘Come! Let’s go out to eat!’
 b. *Alors les enfants, que veut-on faire?*
 OK DEF:PL children what want:PRS:3SG-**one** do:INF
 ‘OK, children, what do you want to do?’

In Tshobdun, a referential interpretation is also available to structures inflected for the generic person. In the following sentence, the verb form showing the GP-prefix *kɛ-* actually refers to the speaker himself:

¹¹ This is also true of the other Rgyalrong languages. I thank one of the anonymous referees for suggesting inclusion of the personal-pronoun paradigm here.

- (46) *tərjuʔlatʃʰe tʃʰə reʔ təʔ-tsə=nəʔ*
 property what be.desired IMP-say=SUB
néyu kə-toʔ kə-pe ʃieʔ
 2SG:POSS NMLZ-exist GP-make be:EMPH
 ‘Say what goods are desired, and I (lit. one) will make you possess them.’

In Tshobdun, therefore, transferred reference of the generic person characteristically denotes the first person, preferably the speaker.¹² For example:

- (47) a. *koʔ tšlo mə-jə-tə-tsomʔ káde kə-(*kə-)tʰi reʔ*
 this milk NEG-IMP-2-take.thither in.a.while GP-drink be.necessary
 ‘Don’t take this milk away, for I (lit. one) will drink it later.’
 b. *kádenəʔ kə-/kə-mtser taʔ*
 in.a.while GP-be.hungry be.certain
 ‘I (lit. one) will certainly get hungry in a while.’
 c. *tə-jiʔ=ntʃʰon tə-rəyniʔ tʰəfʃʰaʔ*
 GP:POSS-self=also GP:POSS-learning of.sorts
kə-toʔ=cə sə-ŋoʔ ʃənəʔ=ntʃʰon
 NMLZ:SBJ-exist=INDF GP-be but=also
mtsʰôt tə-kʰede ʃə=cə
 be.much GP:POSS-inspiraron go=MED
 ‘As a person of some learning, one (i.e. I) still draws inspiration from it.’

In the first-person referential usage, the three prefixes are distributed in the same way as in their GP-marking function, but some fluidity of usage has been noted. For instance, the [–VOLITIONAL] prefix *kə-* is also attested to co-occur with *volitional* predicates:

- (48) a. *josjiʔ tomde kə-lət taʔ*
 today gun GP-shoot be.certain
 ‘I will certainly do some shooting today (I plan to do it).’
 b. *josjiʔ tomde kə-lət taʔ*
 today gun GP-shoot be.certain
 ‘I will certainly do some shooting today (e.g. at a training range).’

¹² The plural reading is allowed, given proper context. Incidentally, Lyons (1999:186; fn.9) reports a restricted usage in English where some speakers use the generic pronoun *one* to indicate the speaker: *They told me about it yesterday; well, what could one say, one was rather embarrassed.*

Sentence (48b) would be appropriately uttered for instance by a soldier who anticipates doing shooting practice in his daily training schedule. Here, the non-volitional *kə-* conveys the meaning that in the predicated event the speaker acts without volition, only passively in compliance with arrangements made by others.

4. Diachrony of Tshobdun inflectional GP-markers

As discussed, generic person realization in Tshobdun is chiefly achieved via prefixal verbal morphology, as part of a formally intertwined system of argument deployment, nominalization, and person marking.

Comparative data from other Rgyalrong languages and other Sino-Tibetan languages may shed light on the evolution of inflectional GP-marking in Tshobdun. The primary nominalizing prefix *kə-* in Tshobdun (and in other Rgyalrong languages) is a conspicuous congener to the general nominalizer of highly comparable functions attested in the geographically distant Mizo-Kuki-Chin, Naga, and Kiranti languages (Konnerth 2009, 2012); e.g. Lamgang *kV-* (Thounaojam & Chelliah 2007:48, 97-99), Tangkhul *kə-/kʰə-* (Arokianathan 1987:63-64), Belhare *ka-* (Bickel 2003:558). This may point to shared retention from an old Sino-Tibetan prefix for marking nominalization, which must also be the original function of *kə-* in Rgyalrong. Although the Tshobdun [+HUMAN] gerund nominalizer and [+VOLITIONAL] GP-marker *kə-* is synchronically unanalyzable, comparison with Situ Rgyalrong suggests that *kə-* came from the coalescence of the nominalizer *kə-* and an earlier GP-marker **ŋa-* still surviving in Situ as an independent morpheme with this function.¹³ In the Situ examples below, *ŋa-* occurs as a GP-marker in non-nominalized (49a) and nominalized (49b) contexts:

(49) Situ Rgyalrong

- a. *nə-ŋá-fi-s=ti* *ləmē-kə* *rgəwê* *ka-səpā* *rā*
 PFV-GP-die-PST=SUB lama-ERG sutra NMLZ:GP-cause.to.do be.necessary
 ‘When one dies, it is necessary to send for lamas to chant sutras.’

¹³ Data representing the Lcogrtse (卓克基) variety of Situ Rgyalrong are from Wei (2003:47-49). Transcriptions and glossing are slightly modified. Level and falling tones are marked respectively by $\bar{}$ and $\hat{}$. In Lcogrtse, the GP-marker **ŋa-* is homophonous to the word for ‘I’, the agentless passive (Jacques 2012:§4.1, J. Sun to appear:§3.1.2.1), and the lexicalized stem augment. The stem-augmenting **ŋa-* occurring as part of the stem in certain intransitives (e.g. Lcogrtse *kə-ŋa-stô*, Tshobdun *kə-ə-sto?* ‘to be straight’) is of unclear function, but may once have comprised a paradigm with other augments such as *ma-* (e.g. Lcogrtse *kə-ma-rtšāp*, Tshobdun *kə-mē-rtsev* ‘to be spicy’).

- b. *məfêr təzê kə-ŋa-skā=ti kām wə-ts'énliŋ to-rjô-s*
 yesterday food NMLZ-GP-cook=SUB door 3SG.POSS-bell PFV-speak-PST
 ‘As one was preparing food yesterday, the doorbell rang.’

The comparative data from Situ Rgyalrong are extremely illuminating. First, the nominalizer *kə-* and the GP-marker *ŋa-* may occur in a composite, coalesced form *ka-* even in this conservative Rgyalrong language, as seen in (49a). Second, clausal nominalization may be optional in certain constructions, the case in point being temporal adverbial clauses in Situ, cf. (49a) vs. (49b).¹⁴ The optionality of nominalization, coupled with the tendency for GP-marking to fuse into the nominalizer *kə-*, may likewise have led to the creation of a composite nominalizer *kə-* in other Rgyalrong languages imbued with the semantic value [+HUMAN]. With the gradual decline of the GP marker *ŋa-* in Rgyalrong, *kə-* eventually displaced *ŋa-* as the inflectional exponent of GP in non-nominalized structures. In Tshobdun Rgyalrong at least, the nominalizers *kə-* and *sə-* also developed a GP-marking function on analogy with the nominalizer *kə-*.¹⁵ Since in this innovated function the three prefixes *kə-*, *kə-*, and *sə-* uniformly refer to generic *human* arguments, they became further differentiated in meaning and function, resulting in the distribution patterns described above.

5. Conclusions

The examination of generic-person representation in Tshobdun undertaken in this study reveals that the language selects a relatively uncommon cross-linguistic strategy—dedicated morphology—as its primary GP-encoding device. Nominal representation of GP is sparingly used, and pronominal or zero encoding does not occur at all.

The specialized verbal prefixes that Tshobdun employs for GP realization include the derivational prefix *sə-*, which represents demoted generic human objects, and the inflectional person-marking prefixes *kə-*, *kə-*, and *sə-*, which index human arguments in generic sentences. Comparative evidence from other Rgyalrong languages suggests that none of these prefixes is an archaic form devoted to this function; rather, they all stem from, and still co-exist with, homophonous nominalizers in the language.

¹⁴ Nominalization is also optional in certain types of complement clauses in Tshobdun, see J. Sun (2012:§3).

¹⁵ A highly distinct generic-marking system is found in Japhug Rgyalrong. In this language, the distribution of the two generic prefixes *wɣ-* (homophonous to the *inverse* prefix) and *kui-* (cognate to Tshobdun *kə-*) displays an ergative pattern: A: *wɣ-* ↔ S/P: *kui-*. Unlike in Tshobdun, moreover, Japhug inverse marking cannot co-occur with the prefix *kui-* in inverse scenarios involving a generic-P (Jacques 2010:138).

The co-existence of verbal generic and inverse marking in Tshobdun is typologically noteworthy, and the presence of the inverse prefix *o-* in certain scenarios involving a generic argument in P role is probably unique.¹⁶

The integration of GP-markers into their person systems is another point of special interest. In contrast to the French impersonal *on* which, given proper context, can be used with reference to all persons, the personal use of the Tshobdun GP-markers is reserved for the first person. Ebert (1997:41) notes the replacement of first person patients by impersonal forms in Kiranti languages, Sgaw Karen, and Chukchi and attributes the phenomenon to a tendency for speakers to avoid coding themselves as undergoers. In view of the fact that representation by impersonalizers also extends to agentive subjects in Rgyalrong, one would appeal rather to a general discourse-pragmatic strategy speakers use to keep a low profile and avoid self-reference (Siewierska 2004: 236-240).¹⁷

The human versus non-human distinction permeates Rgyalrong grammar (J. Sun & Shí 2002). The salience of this distinction is manifested, among other things, by inflectional verbal morphology representing arbitrary human arguments as the ‘fourth person’. The findings of this study further underscore the uncommon prominence of humanness marking in this fascinating Sino-Tibetan language.

¹⁶ I am grateful to one of the reviewers who supplied the relevant typological observations, especially as regards comparable facts from certain Amerindian languages.

¹⁷ The desire to downplay the self is particularly keen in direct verbal interactions with an addressee. This may explain the interchangeability of 1st *kə-* and 2nd *tə-* prefixes in the Tshobdun 2>1 scenario marker complex *ko-* ~ *to-* (< *kə-* ~ *tə-* plus the inverse prefix *o-*). This would also exemplify ‘masking strategy (e)’ discussed in Siewierska (2004:237-238).

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草登嘉戎語泛指人稱的標記類型

孫天心

中央研究院

人類語言都有「泛指人稱」，用以寬範圍引指「人們」。草登嘉戎語是四川境內一種形態複雜的漢藏語。本文從類型學的角度探討草登話泛指人稱，發現本語主要採用源自名物化成分之動詞形態標記泛指人稱，屬於較罕見之跨語言類型。此類形態標記已進一步融入人稱體系，成為動詞「第四人稱」，顯示嘉戎語形態句法充分反映「屬人」語意之醒目特徵。

關鍵詞：漢藏語系，嘉戎語，形態句法，泛指人稱，動詞人稱範疇

Phonological Notes on Hàn Period Transcriptions of Foreign Names and Words

Axel Schuessler
Wartburg College

The choice of graphs employed in a corpus of Former Hàn period transcriptions of Central Asian and Indic names and words reveals a few phonological patterns which throw some light on the Chinese language of the time as well as foreign languages.

Key words: historical phonology, Hàn period Chinese, Central Asian languages, transcriptions

1. Introduction

Among Professor Coblin's many contributions to Chinese historical phonology are his extensive studies on the language of the Hàn 漢 period. Beside analyzing sound glosses in Hàn texts and commentaries, he extracted phonological information from the transcription of foreign words. Thus he identified a 'Buddhist Transcriptional Dialect' (BTD) of the Eastern (Later) Hàn period (25-220 C.E.) when translations from Indic sources increased in volume (Coblin 1982, 1983, 1987, 1993a). In an unpublished manuscript he tried to push reconstructions back into the Western (Former) Hàn period (202 B.C.E.-23 C.E.) (Coblin 1993b), but the body of transcriptions of identifiable foreign words is unfortunately rather meager for that early time.

I am trying here a different approach in order to gain, perhaps, phonological insights into the language of the Former Hàn period. Naturally, only Chinese transcriptions can be analyzed whose foreign originals were known; that has been done, most systematically by Coblin and Pulleybank. Hàn dynasty histories, i.e. the *Shǐjì* 史記 (*SJ*), *Hànshū* 漢書 (*HS*), and *Hòu Hànshū* 後漢書 (*HHS*) include chapters on China's Central Asian neighbors, people outside the sinosphere whose languages were totally alien to the Chinese. These historical texts include hundreds of personal names and place names, plus a few foreign words. In order to record these, the Chinese writers had to come to grips with the alien phonology of multi-syllabic words. Perhaps there was some system in the selection of graphs that can throw light on Hàn period Chinese and/or the foreign languages, even though we know little or nothing about these languages, about their actual sounds, and about meanings of the names.

This paper consists of two parts: discussion of selected phonological patterns observable in the data, and the data themselves in the Appendix. The Hàn period Chinese used here is from Schuessler (2009), in which forms are labeled ‘Later Hàn Chinese’, but seem to agree better with an earlier stage during the late Former Hàn period. Qièyùn System (QYS) refers to Karlgren’s Ancient Chinese amended by Li Fang-Kuei as his Middle Chinese (MC). The occasional Old Chinese (OC) form is taken from Schuessler (2009) (it is derived from Baxter 1992) and refers to pre-Hàn stages of the language. Chinese transcriptions represent hypothetical Hàn forms, *pīnyīn* is identified by its tone marks, and OC forms by the asterisk *. Numbers (as in 2-162 貴霜 kus-ʃaŋ) correspond to those in the Appendix, and the sources for the cited names and words are provided in the Appendix. There and elsewhere, primary sources are indicated in square brackets, e.g. “[SJ]” (the source for the item is the *Shǐjì*), and secondary sources and literature are cited in parentheses, e.g. “(de Groot).” An occasional exclamation point “(!)” confirms that a particular reading of a graph is not a mistake but the intended one.

Study of the material does not provide striking new insights, but its broad context confirms much of what scholars have already suggested on the basis of few identifiable foreign words and names.

I started out collecting transcriptions of names and words by going through secondary sources, i.e. the studies of de Groot (1921), Hulsewé & Loewe (1979), Pulleyblank (1962, 1963, 1983 et alia, see References), and Coblin (1982, 1983, 1993a-b). Then I combed through chapters relating to Central Asia in these histories: *Shǐjì* (ch. 110, “Xiōngnú lièzhuàn” 匈奴列傳; ch. 123, “Dàyuān lièzhuàn” 大宛列傳) and *Hànshū* (ch. 94A, B, “Xiōngnú zhuàn” 匈奴傳; ch. 96A, B “Xīyù zhuàn” 西域傳), commented on by Yán Shīgǔ 顏師古. The transcribed names and words are listed in the Appendix. Although I attempted to catch all transcriptions which are relevant to the Former Hàn period in these secondary and primary sources, the data are not necessarily complete. The phonology of the Later Hàn period is somewhat better known, and therefore I have provided items for the sake of comparison, mostly from secondary literature, much of it from Coblin, and from *Hòu Hànshū* ch. 88, “Xīyù zhuàn” 西域傳.

The linguistic affiliation of some Central Asian neighbors is known or can be guessed (see Pulleyblank 1983a). The Yuèzhī 月氏 and the inhabitants of the state Shànshàn 鄯善 around the city Lóulán 樓蘭 were likely Indo-Europeans, and at least the latter were probably connected with the later ‘Tocharian’ (Tokharian) languages. The Wūsūn 吳孫 might have been Indo-European as well. Sogdians spoke some Iranian dialect. The Xiānbēi 鮮卑 were Proto-Mongols. Kirkgis were Turks. Some of the unidentified people probably spoke Altaic languages (some forms of Proto-Turkish, -Mongolian, -Tungusic), others possibly Tibeto-Burman (TB). And still others spoke unknown tongues. My corpus includes about a dozen Xiōngnú 匈奴 words to which

Chinese commentators had added glosses, but the language cannot be conclusively linked to any known language family: not to Altaic languages (Prof. Jerry Norman, personal communication), nor to Ket (earlier known as Yenisseian; Prof. Ed Vajda, p.c., although Vovin argued recently for a Ket connection, like others before him), and certainly not to Indo-European or Tibeto-Burman.

Beside our ignorance of the languages and the original sounds of the words transcribed, we cannot always be sure if it was a foreign name that was recorded, or if a name was a Chinese creation or rendition, as for example the tribe called Báiyáng 白羊 ‘White Sheep’ (Pulleyblank 1994:522), or the town Chìgǔ 赤谷 ‘Red Valley’ (Hulsewé & Loewe 1979:143). Although the name Wūsūn 烏孫 is generally treated as a transliteration, it also can mean ‘the grandsons of a raven’. A crow or raven plays a mythological role, yet Pulleyblank suggested that the ‘crow’ story may be a Chinese embellishment inspired by the name (Pulleyblank 1970:155f). If correct, this would prove that the Chinese understood the name as a translation, even if it originated as a transcription. Lóulán 樓蘭 was renamed Shànshàn 2-265 鄯善 *džan^H-džan^B* in 77 B.C.E. (perhaps a transcription of Cherchen?). After 15 C.E., the Xiōngnú ruler’s title was changed to shànyú 善于 *džan^B-wa* (shàn ‘good’), but until then it was 2-263 單于 *džan-wa* (*dan-wa, theoretically from foreign *dan, *dar or *dal).

We also have to reckon with some uncertainty and inconsistency in the transcriptions. Names tend to be shortened, as, for example, Dàyuān 大宛 *da^H-ʔyan*, which is written out in HS 96A:3894, but simply referred to as Yuān 宛 later on. Or alternative spellings emerge, e.g. Gūshī 2-107 姑師 *ka-ʃi* ~ Jūshī 車師 *kia-ʃi* ‘Turfan’. The Kushan (Kušāna: state, capital city, people, rulers) show up variously as 2-162 貴霜 *kus-ʃan*, 2-163 貴山 *kus-ʃan*, or 貴 *kus*. Alexandria appears as 2-11 烏弋山離 *ʔa-jik-ʃan-liai* (also erroneously 山離烏弋), 2-12 烏弋 *ʔa-jik*, 2-10a 烏遲散 *ʔa-qi-san^H*, and 3-42 澤散 *ʔak-san^H*. Lóulán 2-292 樓蘭 *lolan* < *rô-rân transcribes Krōrayina. This transcription does not necessarily prove that 樓 (Hàn period *lo*) had then, or earlier in OC, a pre-initial *k- that was later lost; the initial *k-* in the original name may have been ignored in the typical attempt to reduce names to two syllables.

Coblin (1993b:3, ms) cautions: “... as is well-known, the interpretation of this [transcriptional] material is often problematic and controversial. ... For the uninitiated... the question of whom to believe or not believe in any particular disagreement is a vexing one. ... And on the basis of what we [i.e. Coblin] have found in our reference sources [Pulleyblank *et alia*] we have, in a conscientious but unavoidably subjective manner, chosen to accept, reject, or leave in limbo a number of Pulleyblank’s forms.” One investigator’s firm identification is another’s unsupported speculation.

Interpretation and identification can depend on assumptions about OC reconstructions. Multiple readings of graphs add to the uncertainty. Yán Shīgǔ adds sound glosses like “X

sounds like Y” (X *yīn* 音 Y), which does not mean that Y was an OC variant form. His saying that “闌 *hip* sounds like 踢 *dap*” is not an invitation to come up with an OC reconstruction that reconciles the two syllables — note his comment that in fast (?) pronunciation “2-8 烏秣 *ʔa-da* “sounds like 鷄拏 *ʔan^H-na*.”

2. Discussion of selected phonological patterns

The emergence of the QYS medial *j* (Division III, as Hàn period medial *i*, *u*) and palatalization of velars during the Former Hàn period have already been discussed in Schuessler (2010).

2.1 No aspirated consonants

The rarity of aspirated consonants in the Former Hàn material is striking, but not surprising. Pulleyblank (1962:242) has noted that already for the Xiōngnú language. Apparently the Chinese scribes or informants did not hear in Central Asian languages sounds similar to the strong Chinese aspiration. Therefore the rare cases of aspiration stand out as odd and suspicious. For some we have explanations:

chē 車 QYS *tʃha* is used in names such as 2-115 車師, ancient name for a place in the Turfan area. In transcriptions the graph is to be read in its older form *jū*, LH *kia*; both aspiration and the palatal initial do not conform to the pattern of syllable selection for foreign words, hence 車師 *kia-si*. This reading is confirmed by a variant 2-106 姑師 *ka-si* ‘Turfan’.

qiě 且 QYS *ts^hja^B* as in the place name 2-325 且末 Calmadana and other words, stands out as odd, not only because of aspiration, but also because of the oblique rising tone (symbolized by ‘B’ here), as discussed below (§2.2). Yán Shīgǔ points out that 且 is to be read *jū*, QYS *tsjwo^A* < OC *tsa (HS 96A:3875). Thus the town was understood in early Hàn times as *tsia-mat*.

2-168 *qiónglǐ* 穹廬, Hàn *k^huŋ-lia* ‘yurt’ (Pulleyblank 1963:242, 255) could be a Chinese word, literally ‘vaulted hut’. Yet *qióng* has also a reading with initial *g*.

In the later BTD, aspirated consonants reflect Sanskrit *kṣ* or Pali *kkh* (< *kṣ*): *luóchā* 羅刹 *la-tʃ^hat* ‘rākṣasa’ (Coblin 1982:132), *píqiūní* 比丘尼 *bī-k^hu-nī* ‘bhikkhunī’ (Coblin 1982:131).

2.2 Middle Chinese tones

In the Former Hàn period, the MC oblique tones (*zè* 仄), i.e. the rising tone *shǎngshēng* 上聲 (^B) and falling tone *qùshēng* 去聲 (^H), are generally avoided;

overwhelmingly, syllables with the level tone *píngshēng* 平聲 (^A or not marked) and entering tone *rùshēng* 入聲 are preferred. And sure enough, Yán Shīgǔ occasionally tells us that a graph with an oblique tone is to be read with the level tone and thus conforms to the apparent principles; see the above example *qiě* 且. Similarly 2-406 浮菰 is read *bu-tsia* (Fújū); and 靡 *mǐ*, Hàn *mie*^B < *mai?, in Wūsūn names (and presumably elsewhere) sounds like 彌 *mí*, Hàn *mie* < *me, and is to be read in level tone. In the name 2-356 細沈瘦, the last graph is not to be read *shòu*, Hàn *ṣu*^H, but *ṣu*^A, hence *sei*^H-*ḍim*-*ṣu* (Xichénsōu); 比 is to be read *pí*, Hàn *bi*, not *pi*^B < *pi?, consequently 1-41 師比 *ṣi-bi* (*shīpí*) ‘belt-hook’; the mountain 2-42 燕然 is read *ʔen*^A-*ńan*, modern Yānrán, not Yànrán.

This seems to imply that syllables with oblique tones had a feature that made them unsuitable for transcribing foreign sounds.

Pre-Hàn transcriptions do not seem to follow this Former Hàn pattern of oblique-tone avoidance. The 1-4 Xiányǔn 獫狁 *hɣam?-jun? (Hàn *hiam*^B-*juin*^B) nomads who with their horses and wagons attacked the Zhōu states around 780 B.C.E., not only had the hypothesized OC glottal stop in their syllables, but an initial velar nasal as well (unless perhaps only *h- was intended?). Both features are absent from Central Asian and Indo-European (IE) languages. The name of a notorious Róng 戎 enemy has in its various manifestations an OC glottal stop: not just in the sinified variant Quǎnróng 犬戎 *k^huen*^B-*ńuŋ* (SJ 110), but also in Quǎnróng 畎戎 *kuen*^B-*ńuŋ* (HS 94A) and Gǔnróng 混/緄戎 *kuən*^B-*ńuŋ* (SJ 110). Names relating to the pre-Hàn languages of the ancient states of Wú 吳 and Yuè 越 in Southeast China also avoided oblique tones, yet the famous Yuè king Gōujiàn 句踐 *kô-dzan? has an unusual MC rising tone (< *ʔ) in his name.

A small number of words have rising tone syllables which do in fact correspond to post-vocalic stop consonants, mostly velar or uvular, as has already been pointed out long ago (Pulleyblank 1962):

1-9	輕呂 <i>k^hieŋ-lia?</i> (*k[h]êŋ-ra?)	<i>qinjiraq</i> , a kind of Central Asian sword = 2-140 徑路 <i>keŋ</i> ^H - <i>la</i> ^H
2-154a	昆子 <i>kuən-tsiə?</i> (*kûn-tsə?)	*qĩrsaq ‘artic fox’ (Dīnglíng word)
2-376	獅子 <i>ṣi-tsiə?</i>	Tocharian A <i>śiśäk</i> , B <i>śecake</i> ‘lion’
2-375	史 <i>ṣə?</i> (*srə?)	S(u)liṣ ‘Sogdian’
2-387	撲挑 <i>p^hok-deu?</i> / <i>-t^heu</i>	Prakrit (Pkt.) Pukhalavati = Πευκελαῶτις (?)
2-184	護澡 <i>ɣuah-tsau?</i>	Waxšab (place name)
3-70	首呵 <i>śu</i> ^B - <i>ha</i>	Sanskrit (Skt.) <i>śubha</i>
3-102	母猴 <i>mo</i> ^B - <i>ɣo</i> < *môʔ-gô	‘monkey’ = 2-418 沐猴 <i>môk-gô</i>
3-45	對馬 <i>tuəs-ma</i> ^B	Tsushima (ʔ marking a short vowel?)
2-95	葷允 <i>hun-juin</i> ^B < *hun-jun?	a northern tribe = Mèngzǐ, SJ 葷粥 *hun-juk

The avoidance or use of *shǎngshēng* syllables points to the survival into the early Hàn language of the putative OC segmental final *ʔ. In later Hàn Buddhist material (Coblin's BTD) syllables with oblique tones are freely used where Indic sources had no corresponding segmental phonemes (except for final -s, see below). There is merely a tendency to avoid *shǎngshēng* syllables for Indic long vowels, thus suggesting brevity.

In the Former Hàn period, *qùshēng* syllables (*qùshēng*; here x^H) are also avoided. I assume that this MC tone had two distinct pre-Hàn sources. One was what Baxter sets up as OC word-final *ts. This final consonant cluster seems to have had the value *s* throughout the Hàn period, because it correlates with foreign post-vocalic *s* and similar sounds (Pulleyblank, Unger), e.g.

3-45	對馬 tuəs-ma ^B	Tsushima
—	柰 nas	Japanese (<i>kara</i>) <i>nashi</i> 'pear'; also in Skt. [Vārā]ṇasī (Benares)
2-201	都賴 ta-las	Talas
2-127	罽賓 kias-pin	Kashmir
—	貴 kus	Kušan, Kusāna
—	劫貝 kiap-pas	<i>kārpāsa</i> 'cotton' (an Austroasiatic loan; Pulleyblank 1962:123)
2-31	央匱 ʔiaŋ-guis	Tocharian B <i>ankwaṣ</i> 'asafoetida'
2-391	蒲類 ba-luis	(*bâ-rus) Bars (*barus) (Altaic 'tiger', e.g. Mongolian <i>bars</i>)
—	謂 wus	Skt. <i>puṣa</i>
—	貳 nis	Indic <i>niṣ-</i> (Coblin 1982:132, 1983b:87)
—	會 yuas	Skt. <i>vāsa</i>
3-77	三昧 sam-məs	Skt. <i>samādhi</i> (Pulleyblank 1983b:100: Skt. <i>dh</i> > Gandhari <i>z</i>)
2-126	罽 kias < *kats	Kāth, a town

The last four Indic items are from Later Hàn where this final is used for -s and occasionally dentals in general, which has persuaded Coblin to cautiously postulate a final consonant 'C' rather than *s*. These transcriptions (and many more in his BTD material) point to a Hàn period and OC final -s, or something like it, in the relevant OC rime categories.

Never does *qùshēng* from non-dental finals suggest an *s*. Instead, the few available transcriptions suggest, if anything, an -*h* or -*χ*:

2-184	護澡 yuah-tsau?	Waxšab
2-235	大宛 dah-ʔyan	*Taχwār, Tóχapoti (Tocharians) (assuming <i>dah</i> [> <i>dà</i>], not <i>das</i> [> <i>dài</i>])
2-372a	謝 zah	<i>šāhi</i> , Iranian 'king' (identification doubtful)
2-140	徑路 kenj-lah	(< *-rākh) <i>qinjiraq</i> (Xiōngnú sword)

Otherwise *qùshēng* syllables (from non-dental finals) occur occasionally in the last syllable of a foreign word when additional sounds are omitted, as if final *-h* reflected some trailing off:

3-31	丘就 <i>k^hu-dziuh</i>	Kujula
2-129	高附 <i>kau-buoh</i>	Κάβουρα (Kabul)

Like *shǎngshēng* syllables, those with the *qùshēng* had apparently in the Former Hàn period a phonetic feature, carried over from OC, that did not favor their use in transcriptions of foreign sounds except for final *-s*.

2.3 Vowels

The data show that beside the ubiquitous *a*, the vowels *i* and *u* seem to be the most common, but *e* and *o* also occur. The vowel *ə* seems not to have belonged to the inventory of Central Asian languages. It occurs only sporadically, except in later BTD where it stands for the short Indic *a* (since 500 B.C.E. pronounced *ə*). There is one interesting variant: 2-300 侖頭 *luin-do* < *run-dô [SJ] Lúntóu, pl. n. ~ 2-301 侖臺 *luin-də* < *run-dô 102 B.C.E. or 59 B.C.E. [HS] Lúntái, pl. n. (Hulsewé & Loewe 1979:166).¹ Note also 3-52 邪馬臺 *ja-ma^B-dê* [HHS] Yémătái, Japanese ‘Yamato’ (Yakhontov, cited in Pan 2000:271).

In the Later Hàn period (including the BTD material) and since, a foreign vowel *a* in an open syllable is represented by syllables that belong to the traditional *Gē* 歌 rime group (OC *-ai): 3-36 和夷羅 *yua-ji-la* Skt. *vajra*, 3-1 阿迦貳吒 *ʔa-kia-ńis-ʔa^H* Akaniṣṭa. By that time, QYS *-a* in Division II syllables (= Late Hàn *-a*) from the two OC rimes *-a and *-ai have merged, thus 沙 *srāi represents Indic *ṣa*, as in 3-44 兜沙 *to-ṣa*, Skt. *tuṣāra*.

This *Gē* rime is hardly, if ever, found in the Former Hàn material, except for a few Division III (yod) items. This means that it was unsuitable for foreign *a* as it still must have retained its OC value *-âi, *-ai. Foreign *a* was transcribed with syllables of the traditional *Yú* 魚 category: QYS *-uo*, *-jwo/-ju*, in Later Hàn probably already somewhat rounded, but in the Former Hàn period the vowel still had its OC value *a*. This is borne out by a correspondence like Āhuán 2-4 烏桓 *ʔa-yuan* < *ʔâ-wân = Awar, and the graphic variant Ān-rì-lǐng 2-35 安日領 *ʔan-ńit-lieŋ^B* for Wūrlǐng 2-22 烏日領 *ʔa-ńit-lieŋ^B*.

All this is well known. However, it turns out that the foreign syllable *ma* (and also *na*) presented challenges for Chinese scribes. In our data, the lack of *wú* 無 *ma (which

¹ For dates, consult the Appendix.

was being used regularly a few centuries earlier for non-Chinese names in SE China, note the city Wúxī 無錫 *ma-sêk), and the consistent encounter of mò 莫 with a *rùshēng* reading *mak* and the otherwise shunned *qùshēng ma^H*, as in Gūmòni 2-107 姑莫匿 *ka-mak*/^H-*nik* raises the suspicion that mò was to represent foreign *ma*. In fact Yán Shīgǔ tries to explain at one point that the graph is not to be read in its usual way(s). OC *ma (as in wú 無, QYS *mju*) was, with one exception, not used in Hàn transcriptions because the syllable had probably already developed a medial glide (later Division III) and had become something like *mua* (cf. Coblin 1991b). Whatever the reasons, early Hàn scribes seem to have settled on mò 莫: Hàn period *mak* (< OC *mâk) and *ma^H* (or *mah*) from OC *mâkh or *mâks. In the Later Hàn period the problem resolved itself as *Gē* rime syllables like mó 摩 Hàn *ma* (< earlier *mai*, *mâi) became available, as in móhē 3-97 摩訶 *ma-ha* = Sanskrit *māhā*.

2.4 Duplication of intervocalic consonants

Occasionally, the final consonant of a first syllable anticipates the beginning consonant of the next. In most foreign (Indic) words, the first syllable contains a short vowel and a single intervocalic consonant, hence a doubled medial consonant seems to indicate brevity, because open syllables in *píngshēng* were presumably long, and a *shǎngshēng* syllable may still have been short-stopped:

3-59	南無	nəm-muo	Prakrit (Pkt.) <i>namo</i> ‘name’
3-77	三昧	sam-məs	Sanskrit (Skt.) <i>samādhi</i> ‘meditation’
3-95	楓摩	puəm-ma	Skt. <i>brahma</i>
3-33	群那	gun-na	Skt. <i>guṇa</i> ‘quality’
3-64	晨那	džin-na	Skt. <i>jina</i> ‘victor’
3-86	般若	pan-ña	Skt. <i>prajñā</i> , Prakrit (Pkt.) <i>pañña</i> ‘understanding’
3-63	質多	tšit-ta	Skt. <i>citta</i>
3-65	術闍	žuit-dža	Skt. <i>vidyā</i> ‘wisdom’
2-197	業彼	ɲiap-piai ^B	Yapala for Yavana
2-163	貴霜	kus-ʃaŋ	Skt. Kuṣāṇa, name of a state
2-139	隔昆	kek-kuən	< *krêk-kûn, ca. 200 B.C.E. Qyrqyz
2-323	貳師	nis-ʃi	Nesef, Nakhšab

Occasionally we have variant writings with and without a doubled consonant:

2-34	安日領	ʔan-ñit-lien ^B	~ 2-22 烏日領	ʔa-ñit-lien ^B [HS] a Wūsūn nobleman
2-31	央匱	ʔiaŋ-guis < *ʔaŋ-gus	~ 3-4 阿魏	ʔa-ŋus Tocharian B <i>ankwaṣ</i> ‘asafoetida’

However, a syllable was not always short in the original, and therefore the vowel of an unknown source is not necessarily short:

3-67	釋迦文	śak-kia-mun	Śākyamuni
—	劫貝(婆)	kiap-pas(-sa)	Skt. <i>kārpāsa</i> ‘cotton’
3-3	阿會亘	?a-yuas-syan	< *?â-wâs-suan, Skt. <i>ābhāsvara</i>

2.5 The nasal *ŋ*

The post-vocalic velar *ŋ* seems to play the role of a generic nasal. It sometimes is the equivalent of *n* or *m* after a short vowel:

2-163	貴霜	kus-ʃaŋ	~ 2-163 貴山 kus-ʃan, Skt. Kuṣāṇa
3-76	桑門	saŋ-mən	~ 3-71 疏問 ʃa-mun ^H , Skt. <i>śramaṇa</i> ‘monk’
3-88	淋沙, 瓶沙	beŋ-ʃa	Skt. Bimbisāra
3-78	僧那僧涅	səŋ-na-səŋ-net	Skt. <i>sannāhasannaddha</i>

In light of this behavior of *-ŋ*, ‘Xiōngnú’ (1-6 匈奴 *hiōŋ-na* < *hoŋ-nâ) may well be a regular Hàn period (or even pre-Hàn) rendering of ‘Huns’, i.e. foreign Hōna or Hūna, cf. Skt. Hūṇa (but with a long vowel).

If the final nasal of a first syllable does not necessarily agree with the place of articulation of the onset of the next, the same could perhaps be true for stop consonants, as in 2-416 一枝 *?it-kie* < *?it-ke (*Sānguózhì* 三國志) Iki (Japanese island).

2.6 The nasal *n*

In syllable-final position *n* represents foreign *n* as well as *r* and perhaps *l*, e.g.

2-4	烏桓	?a-yuan	< *?â-wân, 78 B.C.E. Wūhuán, Awar
2-91	驩潛	huan-dziam	107 B.C.E., ca. [SJ 123] Khwarezm (Pelliot, cited in Pulleyblank 1981:280)
2-36	安息	?an-sik	125 B.C.E. Ānxi, Arsak (Parthia)
2-38	焉耆	?ian-gi	59 B.C.E. Yānqí, *Argi, native (Tocharian) name for Karashar (Pulleyblank 1962:99); cf. Toch. A <i>ārki</i> , B <i>ārkwī</i> ‘white’
2-127	罽賓	kias-pin	125 B.C.E. Jībīn, Kashmir, Κασπερία
2-141	堅昆	ken-kuən	< *kīn-kūn 50 B.C.E., Jiānkūn, Qyrqyz < qyrqyř
2-235	大宛	da ^H -?yan	< Hàn daχ-?yan, ca. 140 B.C.E., Dàyuān, Tocharians, *Taxwār: Skt., Takhara, Tuṣari; Τόχαροι, Τάχαροι
2-354	鮮卑	sian-pie	< *sen-pe, 1 st c. B.C.E., Xiānbēi, *Sārbi, proto-Mongols

2-378	番兜 p ^h uan-to	59 B.C.E., Fāndōu, Parthia
2-154a	昆子 kuən-tsi ^B	< *kūn-tsə? [WL] kūnzī, *qīrsaq ‘artic fox’ (Dīnglíng word)

When a foreign original is unknown, the latitude for theoretical interpretations is wide. The 昆侖, 崑崙 *kuən-luən* (Kūnlún) mountain could reflect foreign *kun/r/l-run/r/l*, i.e. *kunrun*, *ku(r)run*, *kurul*, *kulrul*, etc.

The duplication of an intervocalic lateral consonant can have the strange effect that the syllable final consonant materializes as Chinese *n*, so that the transcription shows a nasal where none existed in the original:

3-89	比伊潘羅 pi ^B -ʔi-p ^h an-la	180 C.E., <i>brhatphala</i>
2-362	薪犁 sin-li < *sin-ri	ca. 200 B.C.E., Xīnlí, Turkic Syr

Apparently, the Hàn scribes felt the consonantal configuration in the two items above to have been something like “bṛhatphāl-la” and “sīr-ri” > *-phan-la* and *sin-ri*. Thus an *n* could theoretically be nothing more than the trace of brevity in the original. Unidentified names could well include ones with short vowels of this type, e.g. 2-37 安犁靡 *ʔan-li-mie* (Ānlímí), a Wūsūn king, could theoretically have been called Arime, for example.

The syllable *xīn* 薪, Hàn *sin*, in Xīnlí writes the word for ‘fire-wood’ which is cognate to TB *siŋ ‘wood’ (ST *-iŋ > OC *-in or *-eŋ); it never had a final *-r, even though it transcribes a foreign lateral. (The phonetic of *xīn* 薪 is *xīn* 辛 ‘bitter’, cf. TB *m-sin ‘liver’; see Matisoff 2003:306). This makes it doubtful that Hàn Chinese had final *r* or *l*. Some southern dialects cannot distinguish between *l* and *n* either, showing the close affinity of these sounds and easy substitution of one for the other.

2.7 Medial *r*

Medial *r* is postulated for OC syllables which correspond to the QYS Division II category, as well as for retroflex consonants (of the types *ʂ*, *tʂ*, *f*, *ŋ*). Our material has only two examples of *tʂ*; this sound is exceptional. The sound *tʂ^h* occurs regularly in Later Hàn transcriptions for Indic *kʂ*, e.g. 3-48 羅刹 *la-tʂ^hat* (*luóchà*) Skt. *rākṣasa*.

Except for the early years of the Former Hàn period, QYS *ʂ* regularly stands for *s*, *ʂ*, and *ś*, and not for the presumed OC *sr, e.g. 2-163 貴霜 *kus-ʂan*, 2-164 貴山 *kus-ʂan* (59 B.C.E.) Kuṣāna; 2-376 獅子 *ʂi-tsiə^B*, *ʂi-tsiə?* (*shīzǐ*) ‘lion’ = Tocharian A *śiśāk*; 2-11 烏弋山離 *ʔa-jik-ʂan-liai* Alexandria. The Later Hàn word 3-71 疏問 *ʂa-mun^H*, though Skt. *śramaṇa*, reflects a Middle Indic form, cf. Pali *samana* ‘ascetic’. The absence of a cluster is underlined by BTD transcriptions like 3-103 文殊師利 *mun-džo-ʂi-li^H* Manjuśrī where QYS *ʂ* obviously had no trace of an *r*.

However, at the beginning of the Hàn period, QYS ς could possibly still have been representing a cluster $s + r$ or l :

- 220 B.C.E. 1-41 師比 $\varsigma i\text{-}bi < *sri\text{-}bi$ ($shīpí$), foreign *sirbi* (?), a dressy belt-hook [Yán Shīgǔ]
 = HS 2-358 犀毗 $sei\text{-}bi$; the word may be the same as that of the people called
 2-354 鮮卑 $sian\text{-}pie$ (Xiānbēi) *Sārbi
 177 B.C.E. 2-385 比疏 $pi^H\text{-}\varsigma a < *pis\text{-}sra$ [HS] ~ 2-384 比余 $pi^H\text{-}ja < *pis\text{-}la$ [SJ] ‘golden
 comb’

Also in some other items a medial $-r\text{-}$ may have survived in QYS Div. II (OC $*\text{-}r\text{-}$) syllables in early transcriptions, but such syllables are generally avoided. In Later Hàn material, Div. II syllables are freely used in transcribing Indic words without r .

2.8 OC initial laterals $*r$ and $*l$

OC initial laterals $*r$ and $*l$ have clearly changed by Later Hàn to their QYS values l and j (d), when foreign l and r both were represented by l . The Former Hàn material is less clear. If one approaches Hàn period Chinese from the OC angle (how late in the Hàn period can one assume both r and l ?), then one can argue for two distinct laterals to accommodate any hypothesis. In an attempt to “re-”construct the language, I proceed from a later period (QYS l and j , d) and ask: going back in time, at what point do data compel us to assume two laterals?

We do not know which unidentified foreign languages had two laterals. Mongolian and Turkic had both, but never word-initially. The Xiōngnú language did have Hàn period initial $l\text{-}$ (Pulleyblank 1962:240). According to a rough count, in our Former Hàn collection items with initial QYS $l < *r$ outnumber QYS j , $d < *l$ by 31 to 9 (= 4 $j\text{-}$, 5 $d\text{-}$). This imbalance suggests that already in (much of) the Former Hàn period, l was the only lateral available for foreign r and l . Yet three items point to an OC-like $*r \sim *l$ distinction:

(1) 2-293 𪛗𪛗 谷𪛗 Hàn $lok\text{-}le^B$, a Xiōngnú title (210 B.C.E.). According to a commentary 谷 $gǔ$, $yù$, Hàn $jok < *lok$ is read Hàn lok as if from OC $*rok$. Apparently, when the title was first heard and transcribed, Chinese still pronounced the graph $*lok$; after loss of $*l (> j)$, the foreign l was still associated with the Xiōngnú word, hence Hàn $lok >$ modern $lù$.

(2) 2-385 比疏 Hàn $pi^H\text{-}\varsigma a < *pis\text{-}sra$ ~ 2-384 比余 $bìyú$, Hàn $pi^H\text{-}ja < *pis\text{-}la$ ‘golden comb’ (177 B.C.E.).

(3) The problematic 2-11 烏弋山離 Wūyishānlí 烏弋山離, Hàn $?a\text{-}jik\text{-}\varsigma an\text{-}liai$ (36 B.C.E.) ‘Alexandria’ (Pulleyblank 1962:125, Coblin 1982:120f).

Given the above-mentioned count, these words are probably survivals from pre-Hàn or very early Hàn. For practical purposes, the Former Hàn language had only one lateral *l*.

2.9 QYS retroflex stops

QYS retroflex stops, from hypothetical OC dental clusters with **r*, do occur in Former Hàn transcriptions, but they represent simple stops. Compare the distribution of *t/d*, *t̪/d̪* and *t̪s/d̪s* followed by the vowels /a/ and /i/ (only examples are listed, some graphs are employed often):

ta	ta	2-30 惡都奴 ?ak-ta-na, 2-13 烏夷當 ?a-ji-taŋ, 2-26 於單 ?ia-tan, 2-212 蹄林 tas-lim, 2-224 挑拔 t̪au-bat, 2-208 丹渠 tan-gia
	t̪ia	—
	t̪sa	2-255 折蘭 t̪sat-lan, 2-256 詹師廬 t̪sam-ʃi-lia, 2-396 蒲昌海 ba-t̪ʰaŋ
da	da	2-27 於涂九揮 ?ia-da-ku ^B -dian, 2-64 溫偶駝 ?uən-ŋo-da, 2-71 尉屠耆 ?us-da-gi, 2-120 孤塗 kua-da 2-233 屠耆堂 da-gi-daŋ, 2-239 涂吾 da-ŋa, 2-407b 浮圖 bu-da, 2-190 于大 wa-das/da ^H , 2-223 橐駝/它 t̪ak-dai
	d̪ia	2-27 於涂九揮 ?ia-da-ku ^B -dian, 2-244 題除渠堂 de-d̪ia-gia-daŋ
	d̪a	2-8 烏秣 ?a-d̪a, 2-252 撐犁 d̪aŋ-li — Later Hàn 3-46 澤散 d̪ak-san ^H Alexandria
	d̪za	2-263 單于 d̪zan-wa, 2-264 蟬封 d̪zan-puon, 2-265 鄯善 d̪zan ^H -d̪zan ^B , 2-337 積石 tsiek-d̪zak, 2-16 烏禪幕 ?a-d̪zan ^H -mak
ti	(ti	— impossible syllable)
	t̪i	2-226 致盧兒 t̪is-la-ŋe, 2-382 卑援寔 pie-wan-t̪is
	t̪si	2-257 郅居 t̪sit-kia, 2-259 鴟靡 t̪ʰi-mie
di	(di	— impossible syllable)
	d̪i	2-10a 烏遲散 ?a-d̪i-san ^H Alexandria, 2-44 伊稚斜 ?i-d̪i ^H -ja, 2-45 伊秩靡 ?i-d̪it-mie 2-356 細沈瘦 sei ^H -d̪im-ʃu ^A
	d̪zi	—

The distributional gaps need further study, but the syllable types *ti/di* prove that we are not dealing with *r*-clusters, because otherwise foreign languages would have only initial *tri* and *dri*, but no *ti* and *di*. The paucity or absence of *tr*-like configurations in Central Asian languages also speak against clusters. Hàn 屠 *da* is supposed to be read *d̪ia* in at least some words, according to Yán Shīgǔ; *da* seems to be acoustically close to, even interchangeable with, *d̪ia*, just as 姑 *ka* and 車 *kia* could be substituted for each

other. In the Hàn transcription proposed by Schuessler (2009), as well as in the QYS of Karlgren and Li Fang-Kuei, the dot which marks retroflexion is actually redundant in Division III (yod *-j-*) syllables. Likewise, Lù Dē míng's 陸德明 *fānqiè* 反切 (*Jīngdiǎn shìwén* 經典釋文) make no distinction between QYS *t/d* and *ʈ/dʈ*.

In the BTĐ and Later Hàn Chinese, retroflex stop consonants represent Indic counterparts, but also stand for laterals or dentals (see also the 'Alexandrias' above):

3-91	比盧持 pi ^B -la-diə	Skt. <i>vairāṭi-</i>
3-49	賴吒和羅 las-ʈa-ɣua-la	Skt. <i>rāṣṭrapāla</i>
3-14	因坻 ʔin-ḍi	Skt. Indra

'Indra' appears to suggest a cluster *dr* in 坻, but in light of the behavior of the retroflex stops elsewhere, this is unlikely. Because foreign words are often truncated, ʔin-ḍi may simply be a shorter form of something like ʔin-ḍi-la.

2.10 QYS palatals *tʃ/dʒ*

QYS palatals *tʃ/dʒ* regularly transcribe Indic palatal affricates *č*, *čh*, *ǰ*, *ǰh* in BTĐ/Later Hàn. However, the Former Hàn material shows that often dental affricates are preferred over palatals:

tsa	tsa	—	// -au: 2-184 護澡 yua ^H -tsau ^B
	tsia	2-104 姑且 ka-tsia (frequent), 2-310 若苴 ñak-tsia, 2-407 浮沮 bu-tsia ^(H) , 2-332 煎靡 tsian-mie, 2-412 末振將 mat-tsin ^(H) -tsiaŋ	
	tʃa	2-342 詐擣 tʃa ^H -kia ^B	
	tʃa	2-255 折蘭 tsat-lan, 2-256 詹師廬 tsám-ʃi-lia, 2-396 蒲昌海 ba-tʃaŋ	
dza	dza	—	
	dzia	2-340 籍若侯產 dziak-ña-go-ʃan ^B , 2-91 驪潛 huan-dziam, 2-333 捷枝 dziap-kie	
	dʒa	2-263 單于 dʒan-wa, 2-264 蟬封 dʒan-puoŋ, 2-265 鄯善 dʒan ^H -dʒan ^B , 2-337 積石 tsiek-dʒak, 2-16 烏禪幕 ʔa-dʒan ^H -mak	
tsə	tsə	—	
	tsiə	2-154a 昆子 kuən-tsi ^B , 2-335 茲力支 tsiə-lik-kie	
	tʃi	2-339 岑娶 tʃim-tʃio	
dzə	dzə	—	
	dziə	2-166 龜茲 k ^h u-dziə	
	dʒi	2-283 藍市 lam-dʒi ^B	
	dʒ	2-344 岑陬 dʒim-tʃio/-tso	
tse	tse	—	
	tsie	2-7 烏貪貲離 ʔa-t ^h əm-tsie-liai, 2-111 股紫陬 ka ^B -tsie ^B , 2-336 雌栗靡 tʃ ^h ie-lit-mie, 2-337 積石 tsiek-dʒak, 2-338 精絕 tsien-dzyat	

	tse	—
dze	dze, dzie, dze	—
tsi	(tsei see tse)	
	tsi	2-118 居次 <i>kia-tsh^hi^h</i>
	tši	2-257 鄧居 <i>tšit-kia</i> , 2-259 鴟摩 <i>tš^hi-mie</i>
dzi	(dzei see dze)	dzi, dži —
tso	tso	2-111 股紫陬 <i>ka^B-tsie^B-tso</i>
	tsio	2-339 岑娶 <i>tshim-tshio</i>
	tšo	2-343 趨遼 <i>tsho-liok</i>
	tso	2-15 烏珠留 <i>?a-tso-liu</i> , 2-261 顓 <i>tšuan</i>
dzo	dzo	—
	dzio	2-338 精絕 <i>tsien-dzyat</i>
	džo	2-266 銖婁渠堂 <i>džo-lío-gia-dan</i>
tsu	tsu	—
	tsiu	—
	tšu	2-132 稽粥 <i>kei-tšuk</i> , 2-262 祝都韓 <i>tšuk-ta-gan</i>
dzu	dzu	—
	dziu	2-341 酋涂 <i>dziu-da</i> , 2-24 烏就屠 <i>?a-dziu^h-da</i>
	džu	2-147 駒于利受 <i>kio-wa-li^h-džu^B</i>

A syllable *ča* is common in Central Asian languages, but nothing is transcribed with Hàn *tša*, while jū 且苴沮 *tsia* is frequently encountered. Except for one instance with the vowel *o*, all the Chinese syllables have medial *i* (yod), suggesting that the non-yod syllables were unsuitable for foreign sounds. These may have been post-alveolar and therefore not palatal to Chinese ears. Thus it seems almost certain that, as already suspected by Pulleyblank (1962:109) and others, dental affricates transcribe also foreign palatals.

Nothing indicates that the QYS palatals still were dental stops, their assumed OC value. But they were not widely used for foreign affricates either.

2.11 Palatal ś

Palatal *ś* transcribes Indic *ś* in BTD and Later Hàn: 3-68 尸 *śi*, Skt. *śīla*, 3-67 釋迦文 *śak-kia-mun*, Shakyamuni, 3-70 首呵 *śu^B-ha*, *śuʔ-ha*, Skt. *śubha*. Our collection of Former Hàn data shows that of the ca. 420 items, 71 start with a glottal stop or vowel, 29 with *h* (or *x*). Among the latter, almost all *h* are followed by *ɛ*, the two exceptions have the vowels *ə* and *i*. There is not a single syllable like *he* or *hi*. I suggest that before high front vowels *h* is represented by *ś* in items 2-76, and 2-269 to 2-270. This fits the identification of 2-270 身毒 *śin-douk* with Hinduka (Pulleyblank 1962:117, Coblin

1993:16f). The other two syllables with *ś* (2-267 to 2-268) are from the transition from Former to Later Hàn, their phonetic value is not quite certain. This does not mean that *ś* was a Former Hàn *h*; *ś* may simply have been the best substitute.

3. Conclusion

The data show, and confirm, that the language of both the Former and Later Hàn period had certain features in common. From the start of the Later Hàn period down to the present, there was only one lateral *l* which represented foreign *r* and *l*; the later retroflex stop consonants (*t*, *ḍ*) showed no trace of a cluster with *r* (certainly not in Division III), they were simple stops, just as in the QYS; similarly retroflex QYS *ṣ* was a single sound without a discrete *r*; the QYS *qùshēng*, when derived from an OC dental final, was still a final *s* throughout the centuries of the Hàn dynasty.

The Later Hàn period differs from the Former in the treatment of the vowel *a* in open syllables which was represented, as in the QYS, by the *Gē* rime category that must still have had a diphthong *-ai* in the Former Hàn language, while there the Yú category still had its OC value *a* that had not yet undergone rounding. This is a key diagnostic feature for separating the Former from the Later Hàn language. QYS oblique tones still seemed to have some segmental (?) feature in Former Hàn which had disappeared later. In the later Hàn, the palatal initials had their QYS values, while their nature was not quite distinctly developed in Former Hàn.

These are just some obvious peculiarities. Further study may uncover additional phonological features.

Appendix: Transcriptions of Central Asian names and words

The material is divided into three groups: (1) Pre-Hàn, (2) Former (Western) Hàn, and (3) Later (Eastern) Hàn. Within a group, the items are listed roughly alphabetical by the hypothetical Hàn period transcription (following the graphs): ʔ, h, K, w, ɳ, T, ts, l, n, s, ts, P, m. They are numbered sequentially, but due to late rearrangements, a number may be skipped, or an item inserted (followed by ‘a’, ‘b’).

The dates are for the most part approximations, they may be +/- a decade or much more. They are based on the assumed date of contact or the text. The year 59 B.C.E. is given for (statistical) data which may have originated in the Office of the Protector General, that existed between 59 B.C.E. and 16 C.E. (Hulsewé & Loewe 1979:10f). The original textual sources are provided in square brackets, e.g. [HHS]; when taken from a secondary source (de Groot 1921, Pulleyblank 1962, 1966, 1983a-b, 1994, 1995, 1998, Hulsewé & Loewe 1979, Coblin 1982), the original source location is not further specified. See the Abbreviations; all well-known texts, are abbreviated in a recognizable manner (e.g. *Zhànguó* is obviously referring to the text *Zhànguócè* 戰國策, *Lǚshì* to *Lǚshì chūnqiū* 呂氏春秋, *Zuǒ* to the *Zuǒzhàn* 左傳, etc.).

The Former Hàn list includes a few items whose literary sources date to a later period, but the phonology points to Former Hàn or even earlier (e.g. *Yú* 魚 rime category = *a*; *ts* = foreign *č*, no palatalization of velars). These have an ‘a’ or ‘b’ after their running number (e.g. ‘2-407a’).

1. Pre-Hàn

- | | | |
|-----|------------|--|
| 1-1 | 烏氏 Wūzhī | ʔa-kie < *ʔa-ke 620 B.C.E. ʔ, ca. [SJ 110:2883] a Róng tribe |
| 1-2 | 烏孫 Wūsūn | ʔa-suən < *ʔa-sūn 436 B.C.E., 140 B.C.E. [SJ 123:3160; HS 96A:3871] this may possibly be a Chinese name, ‘grandchildren of the crow’ |
| 1-3 | 鬱金 wèijīn | ʔut-kim [Zhōulǐ 周禮], pre-Hàn, ‘saffron’ (Persian <i>kurkum</i>) (Pulleyblank 1962:89) |
| 1-4 | 獫狁 Xiǎnyǔn | hiam ^B -juin ^B < *hɳamʔ-junʔ 780 B.C.E. [Bronze Inscriptions, <i>Shījīng</i> 詩經] northwestern invaders |
| 1-5 | 葷粥 Hūnyù | hun-juk [Mengzǐ 孟子; SJ 111] northern barbarians, also 獫粥; = HS 葷允 hun-juin |
| 1-6 | 胸衍 Xūyàn | hio-jan ^{B/H} 620 B.C.E. ʔ, ca. [SJ 110:2883; HS 94A:3747] a Róng tribe; Yán Shīgǔ: 胸許于反 |
| 1-7 | 匈奴 Xiōngnú | hioŋ-na < *hoŋ-nâ 318 B.C.E. [SJ 13; 110:2886; HS 94A:3748] Skt. Hūṇa ‘Huns’. Pulleyblank (1994:520) suspects that pre-214 B.C.E. references to Xiōngnú are anachronistic substitutions for Hú 胡. — The Xiōngnú were a confederation of tribes, who may have spoken different languages. |

- 1-8 幪布 *jiābù* ka^[H]-pa^H < *krâ[h]-pâh ca. 331-311 B.C.E., ‘cotton’ [mentioned in *HHS*]: MK *kpaas, Khmer krapās (Baxter 1989)
- 1-9 輕呂 *qīnglǚ* k^hieŋ-lia^B [*Yi Zhōushū* 逸周書 ch.5, *Kè Yīn* 克殷] kind of sword used by Wǔwáng 武王 (Zhèngzhāng 2000:15) = 2-140 徑路 keŋ^H-la^H
- 1-10 昆侖, 崑崙 *Kūnlún* kuən-luən [*SJ*] name of a mountain
- 1-11 犬戎 *Quǎnróng* k^huen^B-ńuŋ [*SJ* 110:2881]; the following graphic variants show that *quǎn* ‘dog’ is a Chinese reinterpretation of a similar-sounding syllable:
- 1-12 = 吠戎 *Quǎnróng* kuen^B < *kwîn? [*HS* 94A:3744] (= 犬戎 *Quǎnróng*)
- 1-13 = 緄戎 = 混戎 *Gūnróng* kuən^B-ńuŋ < *kûn?- [*SJ* 110:2883] a tribe; = *HS* 吠戎 (= 犬戎 *Quǎnróng*)
- 1-14 句主 *Gōuzhǔ* kio^A-tso^B < *ko-to? 457 B.C.E. [*SJ* 110:2885; *HS* 94A:3747] name of a mountain
- 1-15 胡 *Hú* ga (hã?) [*SJ*] horse-riding nomads
- 1-16 胡貉 *Húmò* ga-mak < *gâ-mrâk 457 B.C.E. [*SJ* 110:2885; *HS* 94A:3747] a Róng tribe (de Groot 1921:32)
- 1-17 僑如 *Qíorú* giâu-ńa < *gau-na 616 B.C.E. [*Zuǒ* 左] a leader of the Dí 狄 tribes (de Groot 1921:24)
- 1-18 鴻鷺 *Hónglù* goŋ-la^H < *glôn-râkh [*MTZZ* 2] means ‘*hēi shuǐ*’ 黑水 ‘black river’ in the language of the Western Mò 西膜, cf. WT kluŋ-rog ‘black river’ (Unger, *Hao-ku* 50)
- 1-19 榮如 *Róngrú* weŋ-ńa 607 B.C.E. [*Zuǒ*] leader of Dí tribes, brother of 1-43 Fēnrú (de Groot 1921:25)
- 1-20 義渠 *Yìqú* ɲiai^H-gia < *ɲaih-ga 444 B.C.E. [*SJ* 110:2883; *HS* 94A:3747] a Róng state, neighbor of Qín 秦 (Pulleyblank 1994:514); the Yìqú were possibly integrated into the Xiōngnú federation.
- 1-21 禺氏 *Yúshì* ɲio-kie/gie^H < *ɲo-ke/geh [*Guǎnzǐ* 管子] = 1-22 Niúshì, a northern pl. n., source of jade; perhaps = later 2-196 月氏 ɲyat-kie < *ɲot-ke? (Pulleyblank 1966:19)
- 1-22 牛氏 *Niúshì* ɲu-kie/gie^H < *ɲwə-ke [*Guǎnzǐ*] = 1-21 Yúshì
- 1-23 鐸辰 *Duóchén* dak-džin < *lâk-dən 593 B.C.E. [*Zuǒ*] a Dí tribe (de Groot 1921:27f)
- 1-24 大荔 *Dàlì* das^H-l(i)e^H < *dâs-reh 620 B.C.E. ?, ca. [*SJ* 110:2883] a Róng tribe
- 1-25 駒騶 *táotá* dou-da < *lû-lâ [*EY*, *SJ*, *HS*] a kind of horse, Yán Shīgǔ reads it like 桃塗 dau-da
- 1-26 狄 *Dí* dek < *lêk [*Chūnqiū*, *Zuǒ*] Dí tribes who, like the Róng, probably spoke a TB language (Pulleyblank 1996:14).
- 1-27 狄鞮 *dídī* dek-te 239 B.C.E. [*Lüshì*] ‘interpreters’ (Behr). -te is a Xiōngnú honorific suffix; in Hàn Chinese ‘jiak-tian 譯長 *yìzhāng*’, ‘interpreter-in-chief’ [*HS* 96A:3880]

- 1-28 翟 Dí dek < *liâu 620 B.C.E., ca. [*SJ* 110:2883; *HS* 94A:3747] Dí barbarians
- 1-29 翟獠 Díhuán dek-yuan < *liâu-wân 620 B.C.E. ?, ca. [*SJ* 110:2883] a Róng tribe = *HS* 狄獠 (de Groot 1921:21)
- 1-30 狄獠 Díhuán dek-yuan < *lêk-wân 620 B.C.E. ?, ca. [*HS* 94A:3747] a Róng tribe = *SJ* 翟獠
- 1-31 檐檻 Chānlán tsham-lam < *tham-râm 250 B.C.E., ca. [*SJ* 13] a foreign tribe (de Groot 1921:39)
- 1-32 戎 Róng hún [*Chūnqiū*, *Zhànguó*] Róng tribes, at least some of them probably spoke a TB language (Pulleyblank 1996:14).
- 1-33 智伯 Zhibó t̪ie^H-pak < *treh-prâk 457 B.C.E. [*SJ* 110:2885] name of a tribe
- 1-34 湏 zhòng t̪ion^H or tuon^H, 4th c. B.C.E. [*MTZZ*; *SJ* 110:2899] ‘milk’ of cows and sheep (not mares): 竹用反 t̪jwoŋ^H, 都奉反 t̪jwoŋ^B (sic!) (in *GY*, *GSR* also tuŋ^H) = *HS* 2-230 重 (Pulleyblank 1962:250f)
- 1-35 婁煩 Lóufán l(i)o-buan < *ro-ban 620 B.C.E. ?, ca.; 307 B.C.E. [*SJ* 110:2883 = *HS* 94A:3747] a horse-riding Hú tribe (Pulleyblank 1994:518)
- 1-36 留吁 Liúxū liu-hya < *ru-hwa, 593 B.C.E. [*Zuǒ*] a Dí tribe (de Groot 1921:27f)
- 1-37 牆咎如 Qiánggāorú dziaŋ-kou-ńa < *dzaŋ-kû-na 588 B.C.E. [*Zuǒ*] a Dí tribe (de Groot 1921:29)
- 1-38 西膜 Xī Mò sei-mak/ma^H < *sî-mâk(h) [*MTZZ* 2] a western people (Unger *Hao-ku* 50)
- 1-39 狻猊/甕 suānní suan-ŋe < *sôn-ŋê, 3rd c. B.C.E. [*MTZZ*, *EY*] ‘lion’, note Proto-Iranian *sarg > Khoresmian sary (M. Witzel, *Sino-Platonic Papers* 2003:14)
- 1-40 徐吾 Xúwú zia-ŋa < *s-la-ŋâ, 590 B.C.E. [*Zuǒ*] a Róng tribe (de Groot 1921:29)
- 1-41 師比 shǐpí ʃi-bi < *sri-bi 220 B.C.E. or before [*Zhànguó*] a dressy belt-hook [Yán Shǐgǔ] = *HS* 2-358 犀毗 sei-bi; the word may be the same as the people called 2-354 鮮卑 sian-pie < *sen-pe (from ser-pe)
- 1-42 鄆瞞 Sōumán ʃu-man < *sru-mân 616 B.C.E. [*Zuǒ*] name of a foreign tribe (De Groot 1921:24)
- 1-43 樊如 Fēnrú bun-ńa 594 B.C.E. [*Zuǒ*] a leader of Dí tribes, son of Qiáorú (de Groot 1921:24) 樊 also *p^hun*, but aspirated consonants are exceptional, hence probably *bun*.
- 1-44 緜諸 Miánzhū mian-tsa < *men-ta 620 B.C.E. ?, ca. [*SJ* 110:2883; *HS* 94A] pl. n. of the Gǔn-róng 混戎 tribe (de Groot 1921:21)
- 1-45 蜜 mì mit < *mit 3rd c. B.C.E. [*Zhāo hún* 招魂] ‘honey’ < IE?, cf. Toch. B mit, (Pulleyblank 1995:427)
- 1-46 茅戎 Máo Róng mɔu < *mrû- 590 B.C.E. [*Zuǒ*] a Róng tribe (de Groot 1921:29)

2. Former Hàn period

Some foreign names probably appear in China for the first time between 140-135 B.C.E., based on reports by Xiōngnú prisoners. Other names may have appeared first in Zhāng Qiān's 張騫 report around 125 B.C.E.

The years suggested below are often approximations. When a name or term is suspected to be already known or established at the time of recording, its date of mention is placed in parentheses.

2-1 烏揭 Wūjié/qiè	ʔa-giat 50 B.C.E., ca. [HS 94B:3800], a Turkic people (Pulleyblank 1983a:456); Pulleyblank reads 揭 <i>g-</i> , but Yán Shīgǔ 揭 <i>kʰiat</i>
2-2 烏氏 Wūzhī	ʔa-kie, Former Hàn, pl. n. in Gansu (Pulleyblank 1962:106) = 烏枝 ʔa-kie
2-3 烏貴 Wūguì	ʔa-kus < *ʔâ-kus 90 B.C.E. [HS 96B:3922], prince of Kashi
2-4 烏桓 Wūhuán	ʔa-yuan < *ʔâ-wân 78 B.C.E. [HS 94A:3782; SJ], Awar
2-5 烏維 Wūwéi	ʔa-wi 114-105 B.C.E. [SJ 110:2912; HS 94A:3771], a Xiōngnú <i>chányú</i>
2-6 烏員 Wūyún	ʔa-wun 71 B.C.E. [HS 94A:3786], pl. n.; Yán Shīgǔ 員音云
2-7 烏貪貲離 Wūtānzīlí	ʔa-tʰəm-tsie-liai 48 B.C.E., ca. [HS 96A:3874; 96B:3918], pl. n.
2-8 烏秣 Wūchá	ʔa-ɬa (!) 59 B.C.E. [HS 96A:3881] n. of a state; Yán Shīgǔ <i>ʔa-ɬa</i> ; in tense (or fast?) pronunciation it “sounds like 鷓鴣 <i>ʔan^H-na</i> which is not correct”
2-9 烏頭勞 Wūdōuláu	ʔa-do-lau 59 B.C.E., ca. [HS 96A:3885], King of Kashmir (Gk. Ado...laos?)
2-10 烏鞬牙斯 Wūdīyásī	ʔa-te-ŋa-sie 8 B.C.E. [HS 94B:3810], a Xiōngnú <i>chányú</i>
2-10a 烏遲散 Wūchísàn	ʔa-ɬi-san ^H [Wèilüè 魏略, post Hàn], Alexandria; the 烏 <i>ʔa</i> indicates that the transcription is much older than the Wèilüè
2-11 烏弋山離 Wūyīshānlí	ʔa-jik-šan-liai 36 B.C.E. [HS Běnjì wrongly writes 山離烏弋; HS 96A:3882], Alexandria
2-12 烏弋 Wūyī	ʔa-jik 36 B.C.E. [HS 96A:3889], short for Alexandria
2-13 烏夷當 Wūyīdāng	ʔa-ji-taŋ 12 B.C.E. [HS 94B:3809], a Xiōngnú prince
2-14 烏夷冷 Wūyīlǐng	ʔa-ji-leŋ 5 B.C.E. [HS 94B:3811], a Xiōngnú king
2-15 烏珠留若鞮 Wūzhūliú rédī	ʔa-tso-liu ná-te 8 B.C.E.-13 C.E. [HS 94B:3809], a Xiōngnú <i>chányú</i>
2-16 烏禪幕 Wūshànmù	ʔa-dʒan ^H -mak 60 B.C.E. [HS 94A:3790], a Xiōngnú noble
2-17 烏厲屈 Wūlìqū	ʔa-lia-kut 58 B.C.E. [HS 94B:3796], a Xiōngnú general, son of 2-18 烏厲溫敦
2-18 烏厲溫敦 Wūlìwēndūn	ʔa-lia-ʔuən-tuən 58 B.C.E. [HS 94B:3796], a Xiōngnú general
2-19 烏壘 Wūlèi	ʔa-lui ^B 59 B.C.E. [HS 70; 96A:3874], name of a town
2-20 烏纛 Wūdù	ʔa-lui 13 C.E. [HS 96 B:3927], a Xiōngnú title
2-21 烏累若鞮 Wūlèi rédī	ʔa-lui ná-te 13-18 C.E. [HS 94B:3827], a Xiōngnú <i>chányú</i>

- 2-22 烏日領 Wūrlǐng ?a-ńit-lieŋ^B 20 B.C.E. [*HS* 96B:3909], a Wūsūn noble = 2-34 安日領 ?an-ńit-lieŋ^B
- 2-23 烏藉 Wūji ?a-dziak 58 B.C.E. [*HS* 94B:3795], Xiōngnú pl. n.
- 2-24 烏就屠 Wūjiùtú ?a-dziu^H-da 50-20 B.C.E. [*HS* 94B:3800], a Wūsūn prince; elsewhere Yán Shīgǔ reads 屠 as *dīa*
- 2-25 烏師廬 Wūshīlú ?a-ši-lia 105-102 B.C.E. [*SJ* 110:2914], a Xiōngnú *chányú*, possible writing error, = *HS* 詹師廬 tśam-ši-lia
- 2-26 於單 Yúdān ?ia-tan 126 B.C.E. [*SJ* 110:2907; *HS* 94A:3767], a Xiōngnú prince (*tan*!)
- 2-27 於涂九揮 Yútújiǔzhān ?ia-da-ku^B-dian 12 B.C.E. [*HS* 94B:3809], a Xiōngnú name /title; Yán Shīgǔ: 揮音纏
- 2-28 於粟置支侯 Yúsùzhì zhīhóu ?ia-siok-tiə^H-kie-go 10 C.E. [*HS* 94B:3826], Xiōngnú title of a minor official
- 2-29 惡師 Èshī ?ak-ši 72 B.C.E. [*HS* 94A:3785], pl. n.
- 2-30 惡都奴 Èdūnú ?ak-ta-na 6 B.C.E. [*HS* 45; 96B:3925], pl. n. (de Groot 1921:254)
- 2-31 央匱 yāngguì ?iaŋ-guis < *?aŋ-gus, Tocharian B *ankwaš* ‘asafoetida’ (Pulleyblank 1962:99), see 3-4 阿魏 ?a-ŋus
- 2-32 安歸 Ānguī ?an-gui 77 B.C.E. [*HS* 96A; Hulsewé & Loewe 1979:90, n.115], king of Lóulán; *HS* 96A:3878 has *cháng-guī* 嘗歸
- 2-33 安日 Ānrì ?an-ńit 30 B.C.E., ca. [*HS* 96B:3908], a Wūsūn prince
- 2-34 安日領 Ānrǐlǐng ?an-ńit-lieŋ^B 20 B.C.E., ca. [*HS*], a Wūsūn noble = 2-22 烏日領 ?a-ńit-lieŋ^B
- 2-35 安犁靡 Ānlímí ?an-li-mie 11 B.C.E., ca. [*HS* 96B:3909], a Wūsūn king
- 2-36 安息 Ānxī ?an-sik 125 B.C.E. [*SJ* 123:3161; *HS* 96A:3872], Arsák (Parthia)
- 2-37 闐氏 Yānzhī ?ian-kie 210 B.C.E. [*SJ* 110:2888; *HS* 94A:3749], perhaps *Arke, Queen of the Xiōngnú ruler; Yán: 闐於連反 ?ian (Pulleyblank 1963:262); 氏 *zhī*!
- 2-38 焉耆 Yánqí ?ian-gi 59 B.C.E. (1) [*HS* 96A:3871], *Argi, name for Karashahr (Pulleyblank 1962:99, Hulsewé & Loewe 1979:177), probably not derived from Iranian *arka- ‘citadel’ (Adams 1995:402). (2) mountain in Gansu [*HS*], in *Shījì* 焉支, cf. Toch. A *ārki*, B *ārkwī* ‘white’
- 2-39 焉支 Yānzhī ?ian-kie [*HS*] mountain in Gānsù = 焉耆 ?ian-gi
- 2-40 偃渠 Yǎnqú ?ian^B-gia 96 B.C.E. [*HS* 94A:3779], a Xiōngnú general
- 2-41 奄蔡 Yāncài ?iam-sas 125 B.C.E. [*SJ* 123:3161; *HS* 96A:3872], Ἄσσοι, Abzoe, read ?iam^A, not ?iam^B (Pulleyblank 1962:220); later ‘Alans’ (and ‘Ossetes’)
- 2-42 燕然 Yānrán ?en^A-ńan 96 B.C.E. [*HS* 94A:3780], name of a mountain; Yán Shīgǔ ?en^A
- 2-42a 伊吾 Yīwú ?i-ŋa 80 C.E. [*HHS* 78:2909], pl. n.

- 2-43 伊屠智牙師 Yītúzhīyáshī ʔi-da-ʈie^H-ŋa-ʃi 33 B.C.E. [*HS* 94B:3806], a Xiōngnú prince
- 2-44 伊稚斜 Yīzhìxié ʔi-ʈi^H-ja 126 B.C.E. [*SJ* 110:2907; *HS* 94A:3767], a Xiōngnú *chányú*
- 2-45 伊秩靡 Yīzhīmí, ʔi-ʈit-mie 20 B.C.E., ca. [*HS* 96B:3909] a Wūsūn king
- 2-46 伊秩訾 Yīzhìzī ʔi-ʈit-tsie 100 B.C.E. [*HS* 54], a Xiōngnú noble (de Groot 1921:158), cf. 3-12a
- 2-47 伊奴毒 Yīnúdú ʔi-na-douk 36 B.C.E. [*HS Běnjì*], a Kāngjū person (de Groot 1921:233)
- 2-48 伊利目 Yīlímù ʔi-li^H-muk 50 B.C.E., ca. [*HS* 94B:3800], Xiōngnú pl. n.
- 2-49 伊列 Yīliè ʔi-liat 36 B.C.E. [*HS, Běnjì*], name of place or people
- 2-50 伊邪莫演 Yīxiémòyǎn ʔi-ja-mak-jan^B 28 B.C.E. [*HS* 94A:3808], a Xiōngnú person
- 2-51 伊魯若 Yīlǔrě ʔi-dziu-ńa 60 B.C.E. [*HS* 94A: 3789], pl. n. (Xiōngnú) = *HS Běnjì* 呼留若 ha-liu-ńa (de Groot 1921:204), probably a writing error
- 2-52 伊循 Yīxún ʔi-zuín <-s-jun (< *s-lun) 77 B.C.E., ca. [*HS* 96A:3878], Ἰσσηδόνης (Issedones) (so Pulleyblank), belongs to Lóulán / Shànshàn
- 2-52a 伊蒲塞 yīpúsè ʔi-ba-sək [ca. 25 C.E.; *HHS* 42] Skt. *upāsaka* (Pulleyblank 1983b:78)
- 2-53 伊墨 Yīmò ʔi-mək 13 C.E. [*HS* 94B:3826], Xiōngnú pl. n.
- 2-54 依耐 Yīnài ʔii-nə^H 59 B.C.E. [*HS* 96A:3883], pl. n.
- 2-54a 一枝 Yīzhī ʔit-kie < *ʔit-ke [Sānguózhi], Iki (Japanese island); unpalatalized kie points to earlier Hàn
- 2-55 鷹庇 Yīngbì ʔiŋ-pi^H 121 B.C.E. [*SJ* 111], a 2-187 Húnyé 渾邪 leader (de Groot 1921:127)
- 2-56 陰末赴 Yīnmòfù ʔim-mat-p^Huo^H 48-33 B.C.E., ca. [*HS* 96A:3885], name of a Kashmiri prince
- 2-57 甌脫 Ōutuó ʔo-duat < *ʔô-lôt 205 B.C.E., ca. [*SJ* 110:2889; *HS* 94A:3750], ‘wasteland, border area’ (de Groot 1921:52 ‘ordu’)
- 2-58 握衍胸鞬 Wòyǎnxūdi ʔək-jan^{B/H}-hio-te 60-58 B.C.E. [*HS* 94A:3789], a Xiōngnú *chányú*
- 2-59 翁歸靡 Wēngguīmí ʔoŋ-kui-mie 100 B.C.E., ca. [*HS* 96B:3904], n. of a Wūsūn prince
- 2-60 扞采 Yūmí ʔya/hya-mie for 扞采 k^Hua-mie 125 B.C.E. [*SJ* 123:3160], Khema?
- 2-61 扞彌 Yūmí ʔya/hya-mie for 扞彌 k^Hua-mie 59 B.C.E., ca. ? Khema? [*HS* 96A:3880]; acc. to Yu Guang, the same as 拘彌 kio-mie (or kio-mie) in *Hànji* 漢紀.
- 2-62 (扞泥 Yūní ʔya/hya-nei) for 扞泥 k^Hua-nei ?, 59 B.C.E., ca. ? [*HS* 96A:3875], Kuhani or Khvani, Hani
- 2-63 溫宿 Wēnsù ʔuən-siuk 36 B.C.E. [*HS Běnjì*; 96B:3910], n. of a state
- 2-64 溫偶駝 Wēnǒutú ʔuən-ŋo-da 8 B.C.E. [*HS* 94B:3810], a Xiōngnú king

- 2-65 郁成 Yùchéng ʔuk-dzeŋ <ʔwək- [SJ 123:3174; HS 61:2698], a city in Dàyuān
- 2-66 郁立師 Yùlishī ʔuk-lip-ʃi 59 B.C.E. [HS 96B:3919], pl. n.
- 2-67 奧鞬 Yùjiān ʔuk-kian 68 B.C.E. [HS 94A:3788], n. of a Kāngjū town; 奧 also ʔou^H
- 2-68 奧鞬 Yùdī ʔuk-te [HS], name of a person (Xiōngnú?)
- 2-69 尉黎 Wèilí ʔus-lei <ʔus-rí 59, 89 B.C.E. [HS 96A:3872; 96B:3912], pl. n.
- 2-70 尉頭 Wèitóu ʔus-do 59 B.C.E. [HS 96A:3898], pl. n.
- 2-71 尉屠耆 Wèitúqí ʔus-da-gi 80 B.C.E., ca. [HS 96A:3878], Lólán prince; elsewhere Yán Shīgǔ reads 屠 as *dia*
- 2-72 呼鞬 Hūjiān ha-kian 59 B.C.E. [HS 96A:3882], name of a valley, 呼 also *ha^H*
- 2-73 呼揭 Hūqiè ha-k^hiat 58 B.C.E. [HS 94B:3795], n. of a people; Yán Shīgǔ *k^hiat*
- 2-74 呼韓邪 Hūhányé ha-gan-ja 51 B.C.E. [HS 96A:3892, 3895], a Xiōngnú *chányú*, 呼 also *ha^H*
- 2-75 呼衍 Hūyǎn ha-jan^{B/H} 200 B.C.E., ca. [SJ 110:2890; HS 94A:3751], a Xiōngnú clan (de Groot 1921:57)
- 2-76 呼都而尸道臯若鞬 Hūdūershīdàogāo rēdī ha-ta-ŋi-si-dou^H-kou ŋa-te 18 C.E. [HS 94B:3828], a Xiōngnú *chányú*
- 2-77 呼屠徵 Hūtúzhēng ha-da-tiŋ 73-48 B.C.E. [HS 96A:3897], name of a Suōjū ruler, 呼 also *ha^H*
- 2-78 呼屠吾斯 Hūtúwúsī ha-da-ŋa-sie 58 B.C.E. [HS 94B:3795], a Xiōngnú prince
- 2-79 呼知 Hūzhī ha-tiē 96 B.C.E. [HS 94A:3779], title of Xiōngnú kings
- 2-80 呼毒尼 Hūdúní ha-douk-ŋi/nei^H 121 B.C.E. [SJ 111], a 2-187 Húnyé 渾邪 leader (de Groot 1921:127)
- 2-81 呼盧訾 Hūlúzī ha-la-tsie 68 B.C.E. [HS 94A:3788], a Xiōngnú pl. n.
- 2-82 呼留若 Hūliúruò ha-liu-ŋa 60 B.C.E. [HS, *Běnjì*], a Xiōngnú pl. n. = HS 94A 伊魯若 ʔi-dziu-ŋa (de Groot 1921:204), probably a writing error
- 2-83 呼速累 Hūsùlěi ha-sok-lui 58 B.C.E. [HS 94B:3796], Xiōngnú title
- 2-84 虎魄 hǔpò ha^B-p^hak < *hlâʔ-phrâk 59 B.C.E. [HS 96A:3885], ‘amber’ (Pulleyblank 1962:124: perhaps Gk. ἄπραξ — so G. Jacob 1889) originally ‘grasp, plunder’. This identification is very doubtful: tone B and aspirated initial are unusual, 虎魄 ‘tiger soul’ looks like a Chinese creation)
- 2-85 郝宿 Hèsù hak-siuk < *hâk-suk 60 B.C.E. [HS 94A:3789], pl. n.
- 2-86 虛閭權渠 Xūlúchuánqú hia-lia-ghan-gia 68-06 B.C.E. [HS 94A:3787], a Xiōngnú *chányú*
- 2-87 虛連鞬? Xūliándī hia-lian-te [HHS], = 2-298 孿鞬 Lyan-te, a Xiōngnú clan (de Groot 1921:57)
- 2-88 醯諸屠奴侯 Hǎixiétúnúhóu ha^B-gei-da-na-go 31 B.C.E. [HS 94B:3807], a Xiōngnú prince
- 2-89 肸頓 Xīdūn hit-tuən 59 B.C.E. [HS 96A:3891], one of the 5 Yuèzhī tribes under a *yabghu*

2-90 歙侯 xīhóu	hip-go <hiəp- 125 B.C.E. [<i>SJ</i> 11; <i>HS</i> 96A:3891, date of entry 74-75 C.E.], <i>yabghu</i> (Pulleyblank 1962:95)
2-91 驩潛 Huánjiàn	huan-dziam 107 B.C.E., ca. [<i>SJ</i> 123], Khwarezm (Pelliot, see Pulleyblank 1981:280)
2-92 胸(胸)衍 Xūyǎn	hio ^H -jan ^{B/H} < *hōh- [<i>HS</i>], a Xiōngnú clan (de Groot 1921:57) = 呼衍 ha-jan ^{B/H}
2-93 胸留斯侯 Xūliúsīhóu	hio ^H -liu-sie-go 20 B.C.E. [<i>HS</i> 94B:3809], a Xiōngnú <i>chányú</i>
2-94 胸犁湖 Xúlíhú	hio-li-ga 102-101 B.C.E. [<i>SJ</i> 110:2916], a Xiōngnú <i>chányú</i> = <i>HS</i> 句犁湖 ko-li-ga
2-95 葷允 Hūnyǔn	hun-juin ^B < *hun-jun? 119 B.C.E. [<i>HS</i> 55], northern tribe = <i>Měngzǐ</i> , <i>SJ</i> 葷粥 hun-juk (de Groot 1921:137)
2-96 休屠 Xiūchú	hu-ḍia 121 B.C.E. [<i>SJ</i> 110:2908; <i>HS</i> 94A:3768], title of a Xiōngnú subordinate king, and the name of his division (Pulleyblank 1994:516); 屠 acc. to Yán Shīgǔ -ḍia
2-97 休屯 Xiūdūn	hu-duən 2 B.C.E., ca. [<i>HS</i> 94B:3817], pl. n.; 18-48 C.E. Xiōngnú <i>chányú</i>
2-98 休循 Xiūxún	hu-zuin 59 B.C.E. [<i>HS</i> 96A:3884], pl. n. of the Saka
2-99 休旬 Xiūxún	hu-zuin 58 B.C.E. [<i>HS</i> 94B:3796], pl. n.
2-100 休密 Xiūmì	hu-mit 59 B.C.E. [<i>HS</i> 96A:3891], one of the 5 Yuèzhī tribes under a <i>yabghu</i>
2-101 姑句 Gūgōu	ka-ko 1-5 C.E. [<i>HS</i> 96B:3924], king of Kashi (Mid Han, Wáng Mǎng period)
2-102 姑翼 Gūyì	ka-jik ^H < *kâ-lək(h) 89 B.C.E. [<i>HS</i> 96B:3916], nobleman of Kucha
2-103 姑衍 Gūyǎn	ka-jan ^{B/H} 119 B.C.E. [<i>SJ</i> 110:2911; <i>HS</i> 94A:3770], pl. n.
2-104 姑且 Gūjū	ka-tsia 96 B.C.E., ca. [<i>HS</i> 94A:3778], name of a river
2-105 姑夕 Gūxī	ka-ziak 59 B.C.E. [<i>HS</i> 94A:3790], pl. n.
2-106 姑師 Gūshī	ka-ṣi 125 B.C.E. [<i>SJ</i> 123:3160; <i>HS</i> 96A:3873], state in the Turfan area (older, pre 60s B.C.E. writing)= <i>HS</i> 車師 kia-ṣi (the more recent writing, Hulseyé & Loewe 1979:78)
2-107 姑莫匿 Gūmòni	ka-mak ^H -ṇik 30 B.C.E., ca. [<i>HS</i> 96B:3908], n. of a Wūsūn prince
2-108 姑墨 Gūmò	ka-mək 59 B.C.E. [<i>HS</i> 96A:3880], n. of a state
2-109 姑督樓頭 Gūdūlóutóu	ka-mo ^H -lo-do 58 B.C.E. [<i>HS</i> 94B:3795], a Xiōngnú king; Yán Shīgǔ 督 mo ^H
2-110 股鞞 Gǔdī	ka ^B -de/te 1-5 C.E. [<i>HS</i> 96B:3925], a Further Kashi leader
2-111 股紫陬 Gǔzǐzōu	ka ^B -tsie ^B -tso 1-5 C.E. [<i>HS</i> 96B:3924], wife of 2-101 姑句 (Mid Han, Wáng Mǎng period)
2-112 車田慮 Jūtiánlú	kia-den-la 2 B.C.E., ca. [<i>HS</i> 94B:3817], name of a river
2-113 車牙若鞞 Jūyá rēdī	kia-ŋa ŋa-te 12 B.C.E. [<i>HS</i> 94B:3809], a Xiōngnú <i>chányú</i>
2-114 車黎 Jūlí	kia-lei 58 B.C.E. [<i>HS</i> 94B:3795], Xiōngnú pl. n.
2-115 車師 Jūshī	kia-ṣi 59 B.C.E., ca. [<i>HS</i> 96A:3872], Turfan (post 60s B.C.E. writing)= <i>SJ</i> 姑師 ka-ṣi

- 2-116 車延 Jūyán kia-jan 72 B.C.E. [*HS* 94A:3785], pl. n. = 2-117
- 2-117 居延 Jūyán kia-jan 121 B.C.E. [*SJ* 110:2908; *HS* 94A:3768], pl. n., Kucha; river Etsin gol (Pulleyblank 1966:21).
- 2-118 居次 Jūci kia-tsh^hi 71 B.C.E. [*HS* 94A:3786], Xiōngnú word for ‘lady’, a married daughter (de Groot 1921:197)
- 2-119 孤胡 Gūhú kua-ga 59 B.C.E. [*HS* 96B:3920], n. of a state
- 2-120 孤塗 gūtú kua-da < *kwâ-lâ 210 B.C.E., ca. [*HS*], ‘son’ (Xiōngnú word) (Pulleyblank 1963:244)
- 2-121 孤鹿姑 Gūlùgū kua-lok-ka [*HS*], a Xiōngnú *chányú*
- 2-122 康居 Kāngjū k^haŋ-kia < *khâŋ-ka 140 B.C.E. [*SJ* 123:3158; *HS* 96A:3872], Skt. Kanka, name of a country
- 2-123 乾當 Gāndāng kan-taŋ 59 B.C.E. [*HS* 96B:3918], n. of the government seat of Bēilù
- 2-124 犍 jiān kian [*HS*], a Xiōngnú honorific suffix
- 2-125 犍都 Jiāndū kian-ta 59 B.C.E. [*HS* 96A:9881], pl. n.
- 2-126 罽 Ji kias < *kats 59 B.C.E. [*HS* 96A: 3894], Kāth, n. of a Kāngjū town
- 2-127 罽賓 Jībīn kias-pin 125 B.C.E. [*HS* 96A:3882], Kashmir, Κασπερία
- 2-128 劫 Jié kiap 59 B.C.E. [96B:3920], n place name
- 2-129 高附 Gāofù kau-bou^h 59 B.C.E. [*HS* 96A:3891], Kabul, Κάβουρα
- 2-130 高昌 Gāochāng kau-tsh^haŋ 55 B.C.E. [*HS* 94B:3798], pl. n. Karakhojo
- 2-131 稽谷姑 Jīgǔgū kei-kok-ka 107 B.C.E., name of a Little Yuèzhī king (Pulleyblank 1999:155)
- 2-132 稽粥 Jīzhōu kei-tsuk < *kî-tuk 174 B.C.E. [*SJ* 110:2898; *HS* 94A:3758], Xiōngnú ruler (a.k.a. Lao-shang)
- 2-133 稽且 Jījū kei-tsia < *kî-tsa 121 B.C.E., ca. [*SJ* 111; *HS* 55], pl. n. (de Groot 1921:125)
- 2-134 稽留昆 Jīliúkūn kei-liu-kuən 8 B.C.E. [*HS* 94B:3810], a Xiōngnú king
- 2-135 稽秩 Jīzhì kei-ḍit 71 B.C.E. [*HS* 94A:3786], name of a mountain
- 2-136 稽侯𦣻 Jīhóusān kei-go-san/ṣan 60 B.C.E. [*HS* 94A:3790], a Xiōngnú prince
- 2-137 支就 Zhījiù kie-dziu^h 102 B.C.E., pl. n. (de Groot 1921:48)
- 2-138 媯水 Guī shuǐ kye < kyai 125 B.C.E. [*SJ* 123:3161; *HS* 96A:3889], Oxus River
- 2-139 隔昆 Gékūn kek-kuən < *krêk-kūn 200 B.C.E., ca. [*SJ* 110:2893; *HS* 94A:3753], Qyrqyz < qyrqýr, people defeated by the Xiōngnú (Pulleyblank 1962:123, 1983:455, 1990), cf. 2-141 堅昆 ken-kuən
- 2-140 徑路 jìnglù keŋ^h-la^h 44 B.C.E. [*HS* 94B:3801], *qiyirag*, Hunnish knife = 1-9 輕呂 k^hien-lia^B; Zhèngzhāng (2000:15) relates this to Turkic *qyangraq*
- 2-141 堅昆 Jiānkūn ken-kuən < *kîn-kūn 50 B.C.E., ca. [*HS* 94B:3800], Qyrqyz < qyrqýr (Pulleyblank 1983a:455, 1990), cf. 2-139 隔昆 kek-kuən
- 2-142 金日磾 Jīnrìdī kim-nít-te 110 B.C.E., ca. [*HS* 68], a Xiōngnú prince (de Groot

- 1921:131, Psarras 2003:59). The *ní-* (*nít*) is probably assimilated to the final *-m* of 金, hence “kimite”
- 2-143 句黎湖 Gōulíhú ko-lei-ga 102-101 B.C.E. [*HS* 94A:3775], a Xiōngnú *chányú*; Shīgǔ 句 ko, = 句犁湖 hio-li-ga
- 2-144 句姑 Gōugū ko-ka 1 C.E., ca. [*HS* 94B:3818], king of Kashi
- 2-145 鉤營 Gōuróng ko-weŋ 99 B.C.E. [*HS* 54], pl. n. (de Groot 1921:165)
- 2-146 拘彌 Jūmí kio-mie < *ko-me = 抒采 Khema?
- 2-147 駒于利受 Jūyúlishòu kio-wa-li^H-dzu^B 55 B.C.E. [*HS* 94B:3797], a Xiōngnú prince
- 2-148 絳賓 Jiàngbīn kəŋ^H-pin 80 B.C.E., ca. [*HS* 96B:3904], king of Kucha
- 2-149 皐林 Gāolín kou-lim 28 B.C.E. [*HS* 94B:3808], a Xiōngnú title
- 2-150 弓廬 Gōnglú kuŋ-la < *kwəŋ- 110 B.C.E., ca. [*HS*], pl. n. (de Groot 1921:139)
- 2-151 弓閭 Gōnglú kuŋ-lia < *kwəŋ- 110 B.C.E., ca. [*SJ*], pl. n. (de Groot 1921:139)
- 2-152 昆莫 kūnmò kuən-ma^H 120 B.C.E. [*SJ* 123:3168; *HS* 61; 96B:3902ff, esp. 3904], Wūsūn word for ‘king’ at Zhāng Qiān’s time, until ca. 105 B.C.E.
- 2-153 昆彌 kūnmí kuən-mie 72 B.C.E. [*HS* 94A:3785; *HS* 96B:3901, 3904], Wūsūn word for ‘king’ after ca. 105 B.C.E. (Hulsewé & Loewe 1979:143, 149), a conflation of two words, according to Yán Shīgǔ (*HS* 96B:3904)
- 2-154 昆邪 Kūnyé kuən-ja 121 B.C.E. [*HS* 94A:3769]= *HS/SJ*’s 2-187 渾邪 guən-ja
- 2-154a 昆子 kūnzǐ kuən-tsi^B < *kūn-tsə? [*Wèi lüè*], Turkic *qarsaq*, *qīrsaq ‘artic fox’ (Dīnglíng word, Pulleyblank 1962:226).
- 2-155 軍臣 Jūnchén kun-gin 160 B.C.E. [*SJ* 110:2904; *HS* 94A:3764], a Xiōngnú *chányú*
- 2-156 軍須靡 Jūnxūmí kun-sio-mie < kun-so-mai 105 B.C.E., ca. [*HS* 96B:3904], n. of a Wūsūn prince. Yán Shīgǔ: in Wūsūn names 靡 sounds like 彌, hence probably no *shāngshēng* (B)
- 2-157 軍宿 Jūnsù kun-siuk 89 B.C.E. [*HS* 96B:3923], prince of Kashi
- 2-158 骨都侯 kūtūhóu kuət-da-go 200 B.C.E., ca. [*SJ* 110:2890; *HS* 94A: 3751], a Xiōngnú title
- 2-159 馱騃 juétí kuət-dei < *kwēt-dê [*SJ* 87, *HS*, *SW*], a kind of valued horse (Pulleyblank 1963:245: a Xiōngnú word)
- 2-160 鈞耆 Jūnqí kuin-gi < *kwin-gri 121 B.C.E. [*HS* 55], name of a river
- 2-161 屈射 Qūshì k^(h)ut-žak < *kut-mlak, 200 B.C.E., ca. [*HS* 94A:3753], people defeated by the Xiōngnú (Pulleyblank 1966:17) = 2-162 屈夷
- 2-162 屈夷 Qūyǐ k^(h)ut-jo^B < *kut-lo?, 200 B.C.E., ca. [*SJ* 110:2893] = 2-161 屈射 kut-žak
- 2-163 貴霜 Guìshuāng kus-šan 59 B.C.E. [*HS* 96A:3891], Skt. Kuṣāṇa, one of the 5 Yuèzhī tribes under a *yabghu*, name of a state
- 2-164 貴山 Guìshān kus-šan 59 B.C.E. [*HS* 96A:3894], ‘Kushan’, capital of Tayuan
- 2-165 貴靡 Guìmí kus-mie (元貴靡) 64 B.C.E., ca. [*HS* 96A:3904], a Wūsūn ruler, oldest (元) son

- 2-166 龜茲 Qiūcí *kʰu-dziə* 60 B.C.E. [*HS* 70; *HS* 96A:3880], Kucha pl. n.; *kʰu-dziə* (not *ku-tsiə*) is the correct pronunciation according to the commentator Yīng Shào 應劭 (2nd c. C.E.) (de Groot 1921:206)
- 2-167 丘林 Qiūlín *kʰu-lim* < **khwə-rəm*, a Xiōngnú clan (de Groot 1921:57)
- 2-168 穹廬 qiónglú *kʰuŋ-lia* 1st c. B.C.E. [*HS*, Yáng Xióng zhuàn], yurt (Pulleyblank 1963:242, 255); the word could be Chinese, lit. ‘vaulted hut’
- 2-169 渠黎 Qúli *giə-lei* 67 B.C.E. [*HS* 70; *HS* 96A:3973], pl. n.
- 2-170 渠勒 Qúlè *giə-lək* 59 B.C.E. [*HS* 96A:3880], pl. n. near Khotan
- 2-171 祁連 qílián *gi-lian* 121 B.C.E. [*SJ* 110:2908; *HS* 94A:3768] ‘sky’ in the name of a mountain in Gānsù; contra Yán Shīgǔ, this is not a Xiōngnú word, see 2-252 撐犁 (Pulleyblank 1999:169, Lin 1998). Qián 乾 QYS *gjan*, OC **gran* ‘heaven’ looks like the same etymon.
- 2-172 祈連 qílián *gi-lian* 125 B.C.E. [*SJ*], variant of 2-171 祁連 qílián (Pulleyblank 1966:20)
- 2-173 綦連 qílián *giə-lian* ‘sky’ (Chen 1998), variant of 2-171 and 2-172
- 2-174 禽黎 Qínlí *gim-lei* 121 B.C.E. [*SJ* 111], a Húnyé leader (de Groot 1921:127)
- 2-175 壺衍鞬 Húyǎndī *ɣa-jan^{B/H}-te* 85-68 B.C.E. [*HS* 94A:3782], a Xiōngnú *chányú*
- 2-176 闐蘇 Hésū *ɣap-sa* 35 B.C.E. [*HS Běnjì*], Αόρσοι, Abzoae, neighbors of Dàyuān
- 2-177 咸 Xián *ɣem* 31 B.C.E. [*HS* 94B:3807], pr. n. of a Xiōngnú; 13 C.E. [*HS* 96B:3927] a *chányú*.
- 2-178 刑未央 Xíngmòyāng *ɣeŋ-mus-ʔiaŋ* 60 B.C.E. [*HS* 94A:3789], king of Hesu
- 2-179 鴻臚 Hónglú *ɣoŋ-la* < **glôn-râ* [*SJ*] = 1-18 鴻鸞 *ɣoŋ-la^H* q.v.
- 2-180 狐蘭支 Húlánzhī *ɣua-lan-kie* 10 B.C.E. - 10 C.E.? [*HS* 96B:3925; *HS* 94B:3822], a Kashi noble
- 2-181 狐鹿姑 Húlùgū *ɣua-lok-ka* 96-85 B.C.E. [*HS* 94A:3778], a Xiōngnú *chányú*
- 2-182 和寔 Hétíán *ɣuai-den* < **wâi-*, Hvatāna, Khotan = 2-192 Yútíán 于寔
- 2-183 和墨 Hémò *ɣuai-mək* < **wâi-* 59 B.C.E. [*HS* 96A:3891], n. of a town
- 2-184 護澡 Huòzǎo *ɣua^H-tsau^B* < **wâχ-tsau?* 59 B.C.E. [*HS* 96A:3891], Waxšab, a river and town
- 2-185 護于 huòyú *ɣua^H-wa* 13 C.E. [*HS* 94B:3827], a high Xiōngnú title
- 2-186 桓且 Huánjū *ɣuan-tsia* 10 B.C.E. [*HS* 96B:3926], a valley
- 2-187 渾邪 Húnyé *ɣuən-ja* < *gûn-* 121 B.C.E. [*SJ* 110:2909], title of a Xiōngnú subordinate king who surrendered to the Hàn, and the name of his division; possibly of Róng ancestry (Pulleyblank 1994:516) = 2-154 *HS* 昆邪 kuən-ja
- 2-188 渾庾 Húnyé *ɣuən-jo^B* < *gûn-* 200 B.C.E. [*SJ* 110:2893], Central Asian tribe = 渾庾; Shīgǔ 渾 kuən
- 2-189 渾庾 Húnyú *ɣuən-jo^B* < *gûn-* 200 B.C.E. [*HS* 94A:3753], Central Asian tribe = 渾庾; Shīgǔ 渾 kuən

2-190	于大 Yúdà	wa-das/da ^H 59 B.C.E. [<i>HS</i> 96B:3920], n. of a valley
2-191	于婁 Yúlóu	wa-lo/lio 59 B.C.E. [<i>HS</i> 96B:3918], name of a valley
2-192	于真 Yútían	wa-den < *wa- 125 B.C.E. [<i>SJ</i> 123:3160; <i>HS</i> 96A:3871], Hvatāna, Khotan = 2-182 和真
2-193	員渠 Yuánqú	wan-gia 59 B.C.E. [<i>HS</i> 96B:3917], capital of 2-38 Yánqí
2-194	捐毒 Juāndú	wen-douk 59 B.C.E. [<i>HS</i> 96A:3884], pl. n. of the Saka
2-195	唯犁 Wéilí,	wi-li 58 B.C.E. [<i>HS</i> 94B:3795] Xiōngnú pl. n.
2-196	月氏 Yuèzhī	nyat-kie 220 B.C.E., ca. [<i>SJ</i> 110:2887; 123:3157; <i>HS</i> 94A:3748], Yán Shīgǔ: 氏 pronounced like 支 kie [<i>HS</i> 96A: 3872]; driven out of Gānsù before 174 B.C.E.. < *ŋot-ke or *ŋwat-ke (de Groot 1921:47); = 3-40 月支/枝 nyat-kie; perhaps = earlier 1-21 禺氏 ŋio- or ŋio-kie
2-197	業彼 Yèbǐ	ŋiap-piai ^B Yapala for Yavana (Pulleyblank 1962:93); = 業波羅 ŋiap-pa-la [early 6 th c. C.E.]
2-198	危須 Wéixū	ŋye-sio < *ŋyai- 59 B.C.E., ca. [<i>HS</i> 96A:3872], pl. n.
2-199	都尉 dūwèi	ta-ʔus [<i>HS</i>], Xiōngnú title
2-200	都塗吾西 Dūtúwúxī	ta-da-ŋa-sei 58 B.C.E. [<i>HS</i> 94B:3795], a Xiōngnú king
2-201	都賴 Dūlài	ta-las < *tâ-râs 35 B.C.E. [<i>HS Běnjì</i>], Talas, Tārâz
2-202	都犁胡次 Dūlíchú	ta-li-ga-ts ^{hi} 60 B.C.E. [<i>HS</i> 94A:3789], king of 2-243 Tí 題 de
2-203	都隆奇 Dūlóngqí	ta-liuŋ-gie < *gâi 60 B.C.E. [<i>HS</i> 94A:3789], a Xiōngnú prince
2-204	都密 Dūmì	ta-mit < *tâ-mrit 59 B.C.E. [<i>HHS</i> 118], Tarmita, Termes (Pulleyblank 1962:124), one of the 5 Yuèzhī tribes under a <i>yabghu</i>
2-205	當 dāng	taŋ 1 B.C.E., ca. [<i>HS</i> 94B:3821], Xiong official
2-206	當戶 dānghú	taŋ-ga 210 B.C.E., ca. [<i>SJ</i> 110:2890; <i>HS</i> 94A:3751] (presumably – Hulsewé & Loewe 1979) a Xiōngnú title
2-207	當于 Dāngyú	taŋ-wa 31 B.C.E. [<i>HS</i> 94B:3808], pl. n.
2-208	丹渠 Dānqú,	tan-gia 59 B.C.E. [<i>HS</i> 96B:3920] n. of a valley
2-209	丹余吾 Dānyúwú	tan-ja-ŋa 71 B.C.E. [<i>HS</i> 94A:3786], name of a river; cf. 余吾 ja-ŋa
2-210	單桓 Dānhuán	tan-yuan 121 B.C.E., ca. [<i>SJ</i> 111; <i>HS</i> 55; 96B:3919], pl. n. (de Groot 1921:124)
2-211	驪驎, 單驎 tuólín	dai/tan-ge, ten-ge [<i>SJ</i> , <i>HS</i>] a wild horse, Shīgǔ reads it like 顛奚 ten-ge
2-212	蹕林 Dàilín	tas-lim [<i>SJ</i> 110:2892; <i>HS</i>], a Xiōngnú place name (forest)
2-213	鞬 dī	-te [<i>SJ</i> 110; <i>HS</i> 94A], a Xiōngnú honorific suffix; Yán Shīgǔ te; = 鞬 -te
2-214	鞬 dī	-te [<i>HS</i> 68], a Xiōngnú honorific suffix = 鞬 -te
2-215	鞬汗 Dīhàn	te-gan ^H 99 B.C.E. [<i>HS</i> 54], name of a mountain (de Groot 1921:169)
2-216	鐃 dī	tek < *têk, 鳴鐃 míng dí ‘whistling arrow’ of the Huns [<i>SJ</i> 110]; ‘metal barb’

- 2-217 丁靈 Dīnglíng $teŋ-leŋ < *tēŋ-rēŋ$ 174 B.C.E. [*SJ*], Tāgräg, Altaic/Turkic speakers = 丁零
- 2-218 丁零 Dīnglíng $teŋ-leŋ < *tēŋ-rēŋ$ 200 B.C.E., ca. [*SJ* 110:2893; *HS* 94A:3753] = 丁靈
- 2-219 兜銜 Dōuxián $to-gam < *tô-grâm$ 96 B.C.E. [*HS* 94A:3778], name of a mountain
- 2-220 兜莫 Dōumò $to-ma(k^{H})$ 68 B.C.E. [*HS* 94A:3788], a Kashi person
- 2-221 兜眚 Dōuzī $to-tsie$ 60 B.C.E. [*HS* 70], pl. n. (near Kashi)
- 2-222 雕匈莫臯 Diāotáomògāo $teu-dou-mak-kou < *tiû-lû-mâk-kû$ 31 B.C.E. [*HS* 94B:3807], a Xiōngnú prince
- 2-223 橐駝/它 tuótó $thak-dai < thâk-lâi$ 59 B.C.E. [*HS* 96A:3876], ‘camel’; commentators provide a Chinese etymology
- 2-224 挑拔 tāobá $thau-bat$ 59 B.C.E. [*HS* 96A:3889], a kind of antelope
- 2-225 天竺 Tiāndǔ $thēn-touk$ or $hen-touk$ 59 B.C.E. [*HS* 96A:3882], Hinduka (India) = 2-270 身毒 $šin-douk$; = 3-41 天竺 Tiānzhú. See Coblin (1983:45) for the alternate pronunciation 天 hen.
- 2-226 致盧兒 Zhilúér $tis-la-ŋe$ 31 B.C.E. [*HS* 94B:3807], a Xiōngnú king
- 2-227 涿涂 Zhuótú $ɬək-da < *-lâ$ 100 B.C.E., ca. [*SJ* 110:2918], name of a mt. = *HS* 涿邪
- 2-228 涿邪 Zhuóyé $ɬək-ja < *-la$ 100 B.C.E., ca. [*HS* 94A:3777], name of a mt. = *SJ* 涿涂
- 2-229 董忠 Dǒngzhōng $ton^{B}-ɬun$ 55 B.C.E. [*HS* 94B:3798], commander of 高昌 $kau-tsȟaŋ$
- 2-230 重 zhòng $tion^{H}$ or $tuon^{?}$ 176 B.C.E. [*HS* 94A:3759] ‘milk’ = *MTZZ*, *SJ* 1-34 漚
- 2-232 屠耆 *chúqí, túqí* $da-gi < *dâ-gri$ 210 B.C.E., ca. [*SJ* 110:2890; *HS* 94A:3751] ‘wise’ (Xiōngnú word); elsewhere Yán Shīgǔ reads 屠 as *dia* (Pulleyblank 1963:257)
- 2-233 屠耆堂 Túqídāng $da-gi-daŋ$ 60 B.C.E. [*HS* 94A:3789], a Xiōngnú king
- 2-234 屠墨 Túmò $da-mək$ 36 B.C.E. [*HS* Benj], a Kāngjū person
- 2-235 大宛 Dàyuān $da^{H}-ʔyan < daɣ-ʔyan$ 140 B.C.E., ca. [*SJ* 123:3158; *HS* 96A:3872], probably Tocharians, *Taxwār: Skt., Takhara, Tušari; *Tóχαροι, Táχαροι*, Pulleyblank *Tawar (Pulleyblank 1981a: 280, *dā* is a foreign syllable); or Great Yavana = *Ίάορες* (Ferghana) (unlikely)
- 2-236 大益 Dàyi $da^{H}-ʔiek < daɣ-ʔek$ [*SJ*], probably *Dahik, Dihistan (Pulleyblank 1962:224; cf. p. 90)
- 2-237 大夏 Dàxià $da^{H}-fia^{B/H}$ or $das-fia^{B/H}$ (or *-ya*) 125 B.C.E. [*SJ* 123:3161; *HS* 96A:3884], a Chinese name for a mythical people, not a transcription (Haloun 1926, see Hulsewé & Loewe 1979:145 n. 387). Yet for the Hân this was the geographic term for Bactria, the transcription agrees with Iranian Daha (= Skt *Dāsa*), Greek *Δάαι, Δάσαι*, earstwhile enemies of the pre-Indian (Vedic)

- Aryans, located in Bactria around 500 B.C.E. (Parpola 1998:125). Earlier, in OC, the syllable probably had a medial *r*:
夏 *-firaʔ/h or *-graʔ/h
- 2-238 大祿 *dàlù* *da^h-lok* 115 B.C.E., ca. [*SJ* 123:3169], title of a Wūsūn prince (*dà* is a foreign syllable, but acc. to Hulsewé & Loewe 1979:145f it is a Chinese term)
- 2-239 涂吾 *Túwú* *da-ŋa* < *lâ-ŋâ, 121 B.C.E. [*Shānhǎijīng*, Guo Pu] = 2-302 余吾 *ja-ŋa* < *la-ŋâ (de Groot 1921:174)
- 2-240 桃槐 *Táohuái* *dau-ɣuəi* 59 B.C.E. [*HS* 96A:3896], pl. n.
- 2-241 唐兜 *Tángdōu* *daŋ-to* 2 C.E., ca. [*HS* 94B:3818], a tribal king
- 2-242 闐敦 *Xīdūn* (??) *dap/hip-tuən* 58 B.C.E. [*HS* 94B:3796], pl. n.; Yán Shīgǔ: 闐 *hip* sounds like 蹋 *dap*, 敦 also *tuis* (de Groot 1921:210)
- 2-243 題 *Tí* *de* 68 B.C.E. [*HS* 94A:3789], name of a country
- 2-244 題除渠堂 *Tíchúqúdāng* *de-đia-gia-daŋ* 68 B.C.E. [*HS* 94A:3789], a Xiōngnú person
- 2-244a 醴醕 *tíhú* *de-ɣa* [SW] ‘purified kumiss’, cf. Mongolian *čigen* < *tigen* (Pulleyblank 1963:255).
- 2-245 弟史 *dìshǐ* *dei^B-šiə^B* 80 B.C.E., ca. [*HS* 96B:3904], a Wūsūn king’s daughter
- 2-246 條枝 *Tiáozhī* *deu-kie* < *liü-ke 125 B.C.E. [*SJ*; *HS* 96A:3888 支], Ταοκή, Tawwağ (Mesopotamia)
- 2-247 頭曼 *Tóumán* *do-man^A* 220 B.C.E. [*SJ* 110:2887; *HS* 94A:3748], Xiōngnú ruler (*man^A*, not *man^H* acc. to commentaries); many speculations about the underlying foreign word (Altaic *tümen* ‘1000’ etc.).
- 2-248 銅離 *Tónglí* *doŋ-liai* 121 B.C.E. [*SJ* 111], a Húnyé leader (de Groot 1921:128) — may be a writing error = *HS* 55 調雖, *HS* 17 稠離
- 2-249 兌虛 *Duixū* *duas-hia* 59 B.C.E. [*HS* 96B:3920], n. of a valley; 兌 also *t^huas*; 虛 also *k^hia*
- 2-250 屯頭 *Dūntóu* *duən-do* 119 B.C.E., ca. [*SJ* 111], foreign king (of Hán)
- 2-251 敦煌 *Dūnhuáng* *duən-ɣuaŋ* < *dûn-wâŋ 125 B.C.E. [*SJ* 123:3162], Sogdian *ðrw’n* (= *ðruwan* or *ðruwân*), Θρόαα; 敦 is read *duən*, not *tuən* (Pulleyblank 1966:21)
- 2-252 撐犁 *chénglí* *daŋ-li* < *drân-ri 210 B.C.E., ca. [*HS*], ‘sky’, cf. Mongol *tengri*; Yán Shīgǔ 撐 *daŋ*, also *t^haŋ*- [GY]
- 2-253 廚唯 *Chúwéi* *đio-wi* 14 C.E. [*HS* 94B:383827], pl. n.
- 2-254 稠離 *Chóudiāo* *điu-teu* 121 B.C.E. [*HS* 17], a Húnyé leader (de Groot 1921:128) — may be a writing error = *SJ* 銅離, *HS* 55 調雖
- 2-255 折蘭 *Zhélán* *tšat-lan* 121 B.C.E. [*SJ* 111; *HS* 55], pl. n. 折 also read *džat*, *dei*
- 2-256 詹師盧 *Zhānshīlú* *tam-ši-lia* 105-102 B.C.E. [*HS* 94A:3774], a Xiōngnú *chányú*, possible error, = *SJ* 烏師盧 *?a-ši-lia*
- 2-257 郅居水 *Zhìjū shuǐ* *tšit-kia* 96 B.C.E. [*HS* 94A:3778], name of a river
- 2-258 郅支骨都侯 *Zhìzhīgūdūhóu* *tšit-kie-kuət-ta-go* < *tit-ke... 58 B.C.E. [*HS* 94B:3796] (de Groot 1921:212); 36 B.C.E. [*HS*], a Xiōngnú *chányú*, brother of Huhanye, d. 36 B.C.E.

- 2-259 鷓鴣 Chūmí tʂʰi-mie 60 B.C.E., ca. [*HS* 96B:3906], n. of a Wūsūn prince
- 2-260 顓渠 Zhuānqú tʂuan-gia 85 B.C.E. [*HS* 94A:3782], a Xiōngnú queen
- 2-261 顓 *zhuān* tʂuan [*HS*], a syllable which is part of several Xiōngnú queens' name
- 2-262 祝都韓 Zhùdūhán tʂuk-ta-gan 20 B.C.E. [*HS* 94B:3809], a Xiōngnú king
- 2-263 單于 *chányú* dʒan-wa 220 B.C.E. [*SJ*] “*chányú*”, lit. ‘wide, vast’; 15 C.E. changed to shànyú 善于 dʒan^B-wa. This reading may have been retroactively applied to 單 (cf. de Groot 1921:54), hence also Mand. *shànyú*. Pulleyblank (1963:256f) believes that later Turkic *tarqan*, *tarxan* (official titles) are derivations, as is the 13th century Mongol *daruya* (i.e. high official, phonologically difficult to reconcile)
- 2-264 蟬封 Chánfēng dʒan-puoŋ 104 B.C.E. or later [*HS* 96A:3895], n. of a Tàyuān ruler
- 2-265 鄯善 Shànshàn dʒan^H-dʒan^B 77 B.C.E. [*HS* 96A:3872], name given to Lóulán by China, Cherchen
- 2-266 銖婁渠堂 Zhūlúqúdāng dʒo-lió-gia-daŋ 55 B.C.E. [*HS* 94B:3797], a Xiōngnú king
- 2-267 奢 Shē ʂa 15 C.E. [*HS* 94B:3828], a Xiōngnú person
- 2-268 尸泥支 Shīnǐzhī ʂi-nei-kie 10 C.E. [*HS* 96B:3925], a Further Kashi leader
- 2-269 勝之 Shēngzhī ʂiŋ-tʂi < *lhəŋ-tə 60 B.C.E. [*HS* 94A:3789], a Xiōngnú prince
- 2-270 身毒 Shēndú ʂin-douk 125 B.C.E. [*SJ* 123:3164; *HS* 61:2689], Hinduka (India) = 2-225 天竺 ^hen-touk [*HS* 96]; = 3-41 天竺 Tiānzhú
- 2-271 廬胸 Lúqú la-gio 102 B.C.E. [*HS* 94A:3776], pl. n. Yán Shīgǔ: 音劬; = *SJ* 廬胸 lia-gio
- 2-272 廬屠 Lútú la-da 85 B.C.E. [*HS* 94A:3782], a Xiōngnú king
- 2-273 廬胡 Lúhú la-ga 121 B.C.E. [*SJ* 111], pl. n. = *HS* 廬侯 la-go
- 2-274 廬侯 Lúhóu la-go 121 B.C.E. [*HS* 55], pl. n. = *SJ* 廬胡 la-ga
- 2-275 廬渾 Lúhún la-yuən < *râ-gun 13 C.E. [*HS* 94B:3827], a Xiōngnú prince
- 2-276 廬胸 Lúqú lia-gio 102 B.C.E. [*SJ* 110:2916], pl. n. = *HS* 廬胸 la-gio
- 2-277 樂 Lè lak 31 B.C.E. [*HS* 94B:3807], a Xiōngnú person
- 2-278 樂越匿/慙 Lèyuèni lak-wat-ŋik / -^hək 59 B.C.E. [*HS* 96A:3891], Yaxartes; Shīgǔ 樂 lak
- 2-279 酪 *lào* lak < *g-lāk 176 B.C.E. [*SJ* 110:2899; *HS* 94A:3759], a milk product (yoghurt) of the Xiōngnú and Wūsūn (Pulleyblank 1963:250, 253), cf. Mongol *aγīray
- 2-280 蘭 Lán lan [*SJ* 110:2890; *HS* 94A:3751], a Xiōngnú clan
- 2-281 羅姑比 Luògūpí lai-ka-bi/pi^{B/H} 125 B.C.E. [*SJ* 111], a Xiōngnú prince (de Groot 1921:118)
- 2-282 賴丹 Làidān las-tan 89 B.C.E. [*HS* 96B:3916], prince of ‘Wu-mi’ (Hulsewé & Loewe)
- 2-283 藍市 Lánshì lam-dʒi^B [*SJ* 123], Khulm, capital of Dàxià (Bactria), then of the Greater Yuèzhī (Pulleyblank 1962:122), modern Balkh. =

		監氏 kam-dže ^B < *krâm-ge? [<i>HS</i> 96A], 藍氏 lam-dže ^B [<i>HHS</i> 78:2920f]
2-284	藍氏 Lánshì	lam-dže ^B 125 C.E. [<i>HHS</i> 78:2920f], Khulm (Pulleyblank 1962:122) = 2-285 藍市 lam-dzi ^B
2-285	獵驕靡 Lièqiāomí	liap-k ^h iau-mie < *rap-khau-mai 105 B.C.E., ca. [<i>HS</i> 96B:3904], Wūsūn ruler, son of Nandoumi
2-286	黎軒 Líjiān	lei-kian 125 B.C.E. [<i>SJ</i> 123:3162], a country (some say Hyrcania); 軒 kian acc. to commentary
2-287	令居 Liánjū, Língjū	lien-kia 59 B.C.E.? [<i>HS</i> 96A:3873], pl. n.; Yán Shīgǔ 令 lieŋ; Meng Kang (fl. 180-260) 令 read like 連 lien (Hulsewé & Loewe 1979:75); GY also lien.
2-288	零吾 Língwú	leŋ-ŋa 10 C.E. [<i>HS</i> 94B:3823], name of river (de Groot 1921:270; Selenga)
2-289	犁汙 Líwū	li-ʔua 71 B.C.E. [<i>HS Běnjì</i>], a country (see Hulsewé & Loewe 1979:117, n.275 for the many ways to write this name)
2-290	犁扞 Líyū	li-ʔya [<i>HS</i>], pl. n.
2-291	犁軒 Líjiān	li-kan 59 B.C.E. [<i>HS</i> 96A:3888], pl. n.
2-292	樓蘭 Lóulán	lo-lan < *rô-rân 176 B.C.E. [<i>SJ</i> 123:3160; <i>HS</i> 96A:3875], Krorayina, later named 鄯善 dzan ^H dzan ^B
2-293	谷蠡 lùlǐ	lok-le ^B < *g-lok-re? ?, 210 B.C.E., ca. [<i>SJ</i> 110:2890; 123:3159; <i>HS</i> 94A:3751], Xiōngnú royal title; acc. to a commentary 谷 is read lok
2-294	龍 Lóng	lioŋ [<i>HS</i>], a Xiōngnú town = <i>SJ</i> 隴 (Pulleyblank 1963:241)
2-295	隴 Lóng	lioŋ [<i>SJ</i> 123:3160; <i>HS</i> 61:2687], a Xiōngnú town = <i>HS</i> 龍
2-296	龍勒 Lónglè	lioŋ-lək 99 B.C.E. [<i>HS</i> 54], river name (de Groot 1921:165)
2-297	埒婁 Lièlǔ	lyat-lio < *rot-ro 10 C.E. [<i>HS</i> 96B:3925] pl. n.
2-298	犂靬 Luándī	lyan-te < *ron-tê 210 B.C.E., ca. [<i>HS</i> 94A:3751], a Xiōngnú clan
2-299	留犁 liúlǐ	liu-li 44 B.C.E. [<i>HS</i> 94B:3801], a golden (?) Xiōngnú spoon for stirring wine (金留犁) (de Groot 1921:223)
2-300	侖頭 Lúntóu	luin-do < *run-dô [<i>SJ</i> 123:3176], pl. n. = <i>HS</i> 侖臺 Lúntái
2-301	侖臺 Lúntái	luin-də < *run-dê 102 B.C.E. or 59 B.C.E. [<i>HS</i> 96A:3873; 61:2699], pl. n. = <i>SJ</i> 侖頭 Lúntóu
2-302	余吾 Yúwú	ja-ŋa < *la-ŋa 99 B.C.E. [<i>HS</i> 94A:3778], name of a river (de Groot 1921:173) = <i>Shānhǎijīng</i> 2-239 涂吾 da-ŋa
2-303	延 Yán	jan 59 B.C.E. [<i>HS</i> 96B:3911], capital of Qiūjū
2-304	衍敦 yǎndūn	jan ^{B/H} -tuən < *jan- 59 B.C.E. [<i>HS</i> 96A:3897], n. of a valley where 2-194 Juāndú is located
2-305	罽匿 Yǐnì	jo ^B -nik 59 B.C.E. [<i>HS</i> 96A:3894], n. of a Kāngjū town
2-306	容屈 Róngqū	joŋ-kut < *loŋ- 59 B.C.E., ca. [<i>HS</i> 96A:3885], name of a Kashmiri prince
2-307	諾 Nuò	nak 44 B.C.E. [<i>HS</i> 94B:3801], a Xiōngnú river
2-308	若呼 Ruòhū	ńak-ha < *ńak-hâ 80 B.C.E., ca. [<i>HS</i> 96B:3904], n. of a ruler (<i>yabghu</i>)

- 2-309 若鞮 *ruòdī* ńak-te 31 B.C.E. [*HS* 94B:3807], Xiōngnú word ‘filial piety’ 孝, so glossed in 18 C.E. [*HS* 94B:3829] (Pulleyblank 1999:155)
- 2-310 若苴 *Ruòjū* ńak-tsia 107 B.C.E., a Lesser Yuèzhī title (wáng), cf. Tocharian A ńākci, B ńākc(i)ye ‘godly, heavenly’ (Pulleyblank 1999:155) (but etymologically perhaps also ‘lordly’)
- 2-311 婁 *Ré, Ruò* ńe, ńak 59 B.C.E. [*HS* 96A:3875], a Qiang tribe. Meng Kang, *GY*: ńe; Yán Shīgǔ ńak; both Chinese readings agree with an ethnonym for the later Tanguts (Xixia): WT *mi-ńag* (Tangut *mi-niauw*), and the Tangut autonym *ndžei* (ritual language) (Keping 2003:39; 97ff)
- 2-312 囊知牙斯 *Nángzhīyásī* nan-ṭie-ṇa-sie 31 B.C.E. [*HS* 94B:3807], a Xiōngnú prince (de Groot 1921:245)
- 2-313 難兜 *Nándōu* nan-to 59 B.C.E. [*HS* 96A:3882], pl. n.
- 2-314 難兜靡 *Nándōumí* nan-to-mie ca. 175 B.C.E. [*HS* 61:2691], Wūsūn ruler, killed by migrating Yuèzhī
- 2-315 難栖 *Nánxī* nan-sei 11 B.C.E. [*HS* 96B:3909], a Wūsūn *yabghu*
- 2-316 男開牟 *Nánkāimóu* nəm-kʰai-mu 36 B.C.E. [*HS Běnyì*], a Kāngjū person (de Groot 1921:233)
- 2-317 寧彌 *Níngmí* neṇ-mie 59 B.C.E. [*HS* 96A:3880], pl. n.
- 2-318 泥靡 *Nímí* nei-mie 70 B.C.E., ca. [*HS* 96B:3904], n. of a Wūsūn prince
- 2-319 嚚姑 *Nòugū* nok-ka 58 B.C.E. [*HS* 94B:3796], pl. n.
- 2-320 內咄 *Nèiduō* nuəs-tuət 59B.C.E. [*HS* 96B:3919], n. of a valley
- 2-321 日貳 *Rìèr* ńit-ńis 30 B.C.E., ca. [*HS* 96B:3908], a Wūsūn prince
- 2-322 日逐 *rìzhú* ńit-ḍuk 59 B.C.E., ca. [*HS* 96A:3872; 3796], a Xiōngnú title
- 2-323 貳師 *Èrshī* ńis-ši 104 B.C.E. [*SJ* 123:3174; *HS* 96A:3895], Nesef, Nakhšab (= Sutrishna), capital of Dàyuān (Pulleyblank 1966:26).
- 2-324 閼振 *Rùnzhen* ńuin^H-tin^(H) < *nuns-ten 58 B.C.E. [*HS* 94B:3796], pl. n.
- 2-325 且末 *Jūmò* tsia-mat 59 B.C.E., ca. [*HS* 96A:3875], Calmadana, near modern Cherchen
- 2-326 且莫車 *Jūmòjū* tsia-mak-kia 31 B.C.E. [*HS* 94B:3707], a Xiōngnú prince
- 2-327 且渠 *jūqú* tsia-gia 48 B.C.E., after? [*HS* 96A:3875], a Xiōngnú title
- 2-328 且鞮侯 *Jūdīhóu* tsia-te-go 101-96 B.C.E. [*SJ* 110:2917; *HS* 94A:3777], a Xiōngnú *chányú*; Yán Shīgǔ: 鞮 *te*
- 2-329 且彌 *Jūmí* tsia-mie 70 B.C.E., ca. [*HS* 96B:3920], n. of a state; Yán Shīgǔ: 且 is read *jū*, Han *tsia* (Hulsewé & Loewe 1979:77)
- 2-330 且麋胥 *Jūmíxū* tsia-mi-sia 31 B.C.E. [*HS* 94B:3807], a Xiōngnú prince
- 2-331 且方 *Jūfāng* tsia-puaṇ 2 B.C.E., ca. [*HS* 94B:3818], name of a Xiōngnú prince
- 2-332 煎靡 *Jiānmí* tsian-mie < miai 120 B.C.E., ca. or later [*SJ* 123:3177; *HS* 61:2701], person in Dàyuān
- 2-333 捷枝 *Jiézhī* dziap-kie 89 B.C.E. [*HS* 96B:3912], pl. n.

- 2-334 子合 Zǐhé tsia^B-gəp < *tsəʔ-gəp 59 B.C.E. [*HS* 96A:3882], pl. n. in the Pamirs (Pulleyblank 1962:109); later transcriptions have initial *tʃ*- (e.g. 朱駒波 tso-kio-pa), thus implying that Former Hàn Chinese had no palatal affricates
- 2-335 茲力支 Zīlìzhī tsia^B-lik-kie < *tsə-rək-ke 48-33 B.C.E. [*HS* 96A:3874], king of the Lake Barkul region
- 2-336 雌栗靡 Cīlímí ts^hie-lit-mie 33 B.C.E., ca. [*HS* 96B:3908], a Wūsūn prince
- 2-337 積石 Jīshí tsiek-dzak 59 B.C.E., ca. or after [*HS* 96A:3871], pl. n., perhaps Chinese (Hulsewé & Loewe 1979:72)
- 2-338 精絕 Jīngjué tsienʔ-dzyat ~ -dziot 59 B.C.E., ca. [*HS* 96A:3880], pl. n. Cadota
- 2-339 岑娶 Cénqǔ ts^him-tʃio 115 B.C.E., ca. [*SJ* 123:3169], a Wūsūn title of a prince; in light of the *HS* version, probably tone A (not C)
- 2-340 籍若侯產 Jírěhóuchǎn dziak-ña-go-ʃan^B 125 B.C.E. [*SJ* 111], a Xiōngnú noble (de Groot 1921:118)
- 2-341 曾涂 Qiútú dziu-da < *dziu-lâ 121 B.C.E., ca. [*SJ* 111; *HS* 55], pl. n. (de Groot 1921:124)
- 2-342 詐橋 Zhàjiǎo tʃa^H-kia^B [*HS*], Xiōngnú *chányú*
- 2-343 趨遼 Qūliú tʃ^ho-liok 5 B.C.E. [*HS* 94B:3811], a Wūsūn prince
- 2-344 = 岑陬 Chénzuō dzim-tʃio/-tso 115 B.C.E., ca. [*HS* 96B:3902], a Wūsūn title of a prince (Yán Shīgǔ: *dzim-tso*); see 2-339
- 2-345 蘇 Sū sa 1 C.E., ca. [*HS* 94B:3821], a Xiōngnú official
- 2-346 蘇薤 Sūxiè sa-ge^H < *sɲâ-grêh 110 B.C.E., 59 B.C.E. [*SJ* 123; *HS* 96A:3894], n. of a Kāngjū town, Soyɔd or Soyðik (Pulleyblank 1962:219), or Σαγαράλῳ?
- 2-347 蘇猶 Sūyóu sa-ju 89 B.C.E. [*HS* 96B:3922], pr. n.
- 2-348 蘇屠胡 Sūtúhú sa-da-ga 13 C.E. [*HS* 94B:3827], a Xiōngnú king
- 2-349 蘇得 Sūdé sa-tək 121 B.C.E., ca. [*HS* 55], pl. n.
- 2-350 胥鞬 Xūjiān sia-kian 59 B.C.E. [*HS* 96A:3874], pl. n. near Turfan
- 2-351 胥比 xūbǐ sia-bi 177 B.C.E. [*SJ* 110:2897] = *HS* 2-358 犀毗 *sei-bi* (比 *bi* in light of 毗)
- 2-352 莎車 Suōjū suai-kia 59 B.C.E., ca. or after [*HS* 96A:3872], Yarkand
- 2-353 珊瑚 sānhú san-ga 59 B.C.E. [*HS* 96A:3885, SW], ‘coral’ < Iranian *sanga* ‘stone’
- 2-354 鮮卑 Xiānbēi sian-pie < *sen-pe 1st c. B.C.E., *Sārbi, proto-Mongols (1st c. B.C.E.), defeated the northern Xiōngnú in 85 C.E.
- 2-355 塞 Sè sək 59 B.C.E. [*HS* 96A:3884], Saka
- 2-356 細沈瘦 Xìchénshòu sei^H-dim-ʃu^A 60 B.C.E., ca. [*HS* 96B:3906], a Wūsūn prince; Yán Shīgǔ: 瘦 *ʃu^H* is read like 搜 *ʃu^A*; 沈 is also read *dim^H*, *śim^B*, and *tʃ^him^B*
- 2-357 西夜 Xīyè sei-ja^H 59 B.C.E. [*HS* 96A:3882], pl. n. (a Chinese name?)
- 2-358 犀毗 xīpí sei-bi < *sâi-bi 177 B.C.E. [*HS* 94A:3758] = *SJ* 2-351 胥比 *sia-bi* = 1-41 師比 *ʃi-bi*; also called 鮮卑 *sian-pie* < *sen-pe

- 2-359 星靡 Xīngmí
 2-360 先賢揮 Xiānxiántán
 2-361 薪犁 Xīnlí
 2-362 新犁 Xīnlí
 2-363 辛顛渠 Xīnzhuānqú
 2-364 搜諸若鞮 Sōuxié rédī
 2-365 須置離 Xūzhīlí
 2-366 須卜 Xūbǔ
 2-367 粟德 Sùdé
 2-368 速濮 Sùbú
 2-369 速邪烏 Sùyéwū
 2-370 脩鮮 Xiūxiān
 2-371 宿虜 Sùlǔ
 2-372 浚稽 Jùnjī
 2-372a 謝 xiè
 2-373 疏勒 Shūlè
 2-374 霜靡 Shuāngmí
 2-375 史 Shǐ
 2-376 獅子 shīzi
 2-377 貝色子 Bèisèzi
 2-378 番兜 Fāndōu
 2-379 卑闐 Bēitián
 2-380 卑品 Bēipǐn
 2-381 卑陸 Bēilù
 2-381a 卑鞮 Bēidī
 2-382 卑援寔 Bēiyuánzhī
 2-383 璧流離 bìliúli
- acc. to Yán Shīgǔ, hence the ‘buckle’ is called after the people, and the different transcriptions may reflect variants
 seŋ-mie 50 B.C.E., ca. [HS 96B:3908], a Wūsūn prince
 sen-gen-dan/džan < *sên-gîn-dân/dan 96 B.C.E. [HS 94A:3778] a Xiōngnú prince (de Groot 1921:177)—a Chinese translation?
 sin-li < *sin-ri 200 B.C.E., ca. [SJ 110:2893], Turk. Syr (Pulleyblank 1983a: 455), Altaic/Turkic people conquered by Xiōngnú = 新犁 *sin-li* (Pulleyblank 1990:21)
 sin-li < *sin-ri 200 B.C.E., ca. [HS 94A:3753] = 薪犁 *sin-li*
 sin-tśuan-gia ? 84+ [HS 94A], a Xiōngnú queen
 so/śu-gei ná-te 20 B.C.E. [HS 94B:3809], a Xiōngnú prince
 sio-tja^H-liai 10 C.E. [HS 94B:3822], king of further Kashi
 sio-pok [SJ 110:2890; HS 94A:3751], a Xiōngnú clan (de Groot 1921:57)
 siok-tək, Soyđ or Soyđik (Pre-BTD) = 2-375 史; 3-83 粟弋.
 sok-pok 121 B.C.E. [SJ 111; HS 55], a (Xiōngnú?) clan or tribe (de Groot 1921:121)
 sok-ja-ʔa 96 B.C.E. [HS 94A:3780], pl. n.
 siu-sian < *su-sen 59 B.C.E. [HS 96A:3884], town in Kashmir (see Hulsewé & Loewe 1979:104, n. 204)
 šiuk-la^B < *suk-râ? 102 B.C.E., pl. n. (de Groot 1921:48)
 suin^H-kei/k^hei^B 96 B.C.E. [HS 94A:3779], name of a mountain
 zia^H < ziaɣ 90 C.E., *šāhi* ? ‘shah’ (very doubtful, see Adams 1995:402)
 ʃa-lək 59 B.C.E., ca. [HS 96A:3872], Kashgar
 ʃaŋ-mie < *sraŋ-mai 59 B.C.E. [HS 96A:3891], one of the 5 Yuèzhī tribes under a *yabghu*
 ʃi^B, ʃi? < *srəʔ, S(u)liɣ ‘Sogdian’ (cf. Herodotus ‘Scoloti’, the general name for the people whom only the Greeks call Skythoi). = 2-367 粟德; 3-83 粟弋.
 ʃi-tsiə^B, ʃi-tsiə? 59 B.C.E. [HS 96A:3889 師], Tocharian A *śiśāk*, B *ʃecake* ‘lion’ (Pulleyblank 1962:109; 226)
 pas-ʃik-tsiə^B 36 B.C.E. [HS *Běnjī*], a Kāngjū person
 p^huan-to 59 B.C.E. [HS 96A:3889], Parthia
 pie-den < *pe-dīn 59 B.C.E. [HS 96A:3894], n. of a Kāngjū town, Bin-Kāth
 pie-p^him^B < *-phrəm? [HS], pl. n.
 pie-liuk 59 B.C.E. [HS 96B:3918], pl. n.
 pie-te 50 B.C.E., ca. [HS 96B:3907], pl. n.
 pie-wan-tis 5 B.C.E. [HS 94B:3811], n. of a Wūsūn prince; Yán Shīgǔ: 寔 *tis*
 piek-liu-liai (避 *bie*?) 59 B.C.E. [HS 96A:3885], Skt. *vaidurya*, Pkt. *veluriya*

- 2-384 比余 *biyú* pi^H -ja < pis-la 177 B.C.E. [*SJ* 110:2897], foreign word for a golden ‘comb’ = *HS* 比梳 pi^H -ša
- 2-385 比疏 *bishū* pi^H -ša < pis-sra 177 B.C.E. [*HS* 94A:3758], foreign word for a ‘golden comb’; Yán Shīgǔ 比 pi^H = *SJ* 比余 pi^H -ja
- 2-386 比疎 *bishū* pi^H -ša 177 B.C.E. [*HS*] acc. to de Groot (1921:78) = 比梳 pi^H -ša
- 2-387 撲挑 *Pūthiāo* p^h ok- t^h eu/-deu^B 59 B.C.E. [*HS* 96A:3888], pl. n., Pkt. Pukhalavati, Skt. Puṣkālavati, Πευκελαῶτις (Peukelaōtis) < *phok-lhiâu/-liâu? (Pulleyblank 1962:101); but others have other identifications (e.g. Chavannes Bactra) = 3-94 濮達 pok-dat
- 2-388 富 *Fù* pu^H 14 C.E. [*HS* 94B:3827], a central Asian ruler
- 2-389 拊離 *Fǔlǐ* p^h uo^B-liai/-lie < pho?-rai 20 B.C.E., ca. [*HS* 96B:3908], a Wūsūn king (de Groot 1921:253)
- 2-390 葡萄 *pútáo* ba-dau 125 B.C.E. [*SJ*; *HS* 96A:3879], ‘grape’ < Iranian *budāwa or *bādāwa
- 2-391 蒲類 *Púlèi* ba-luis < *bâ-rus 71 B.C.E. [*HS* 94A:3785], n. of a country, Lake Barkul; name of a general, *barus, cf. Mongolian *bars* ‘tiger’ (Pulleyblank 1962:219, Hulsewé & Loewe 1979:180)
- 2-392 蒲犁 *Púlí* ba-li 59 B.C.E. [*HS* 96A:3882], pl. n.
- 2-393 蒲奴 *Púnú* ba-na 96 B.C.E. [*HS* 94A:3779], name of a river
- 2-394 蒲離候 *Púlíhóu* ba-liai-go 71 B.C.E. [*HS* 94A:3785], name of a river
- 2-395 蒲呼慮貲 *Púhūlúzi* ba-ha-la-tsie 9 C.E. [*HS* 94B:3822], a Xiōngnú official
- 2-396 蒲昌海 *Púchānghǎi* ba-t^hʂaŋ 59 B.C.E., ca. [*HS* 96A:3871], Lopnor
- 2-397 扶樂 *Fúlè* bua-lak/-ŋək [*HS*], name of a ruler of Suōjū
- 2-398 薄茅 *Bómáo* bak-məu 59 B.C.E. [*HS* 96A:3891], pl. n.
- 2-399 薄胥堂 *Bóxūdāng* bak-sia-daŋ 60 B.C.E. [*HS* 94A:3790], a Xiōngnú person
- 2-400 番丘 *Fānqiū* buan-k^hu 11 B.C.E. [*HS* 96B:3909], n. of a Wūsūn prince; Shīgǔ: 番 is read like 盤 *ban*
- 2-401 番渠類 *Fānqúlèi* buan-gia-luis 59 B.C.E. [*HS* 96B:3918], n. of a valley
- 2-402 皮山 *Píshān* bie < *biai 59 B.C.E. [*HS* 96A:3881], n. of a state
- 2-403 抱闐 *Bàotián* bou^B-den 36 B.C.E. [*HS Běnjì*], king of Kāngjū (de Groot 1921:232)
- 2-404 附墨 *Fùmò* buo^H-mæk < boh-mæk 59 B.C.E. [*HS* 96A:3894], n. of a Kāngjū town
- 2-405 符奚廬 *Fúxīlú* buo-ge-lia 68 B.C.E. [*HS* 69], name of a mountain
- 2-406 浮苴 *Fújū* bu-tsia [*SJ* 110:2913 ; *HS* 94A:3771], pl. n.; Yán Shīgǔ 苴 *tsia*; = [*SJ* 111] 浮沮
- 2-407 浮沮 *Fújū* bu-tsia^(H) [*SJ* 111], pl. n. = [*SJ* 110, *HS*] 浮苴
- 2-407a 浮屠 *Fútú* bu-da ca. 25 C.E.; [*HHS* 42], Buddha (Pulleyblank 1983b:78)
- 2-407b 浮圖 *Fútú* bu-da [*HHS*], Buddha (Pulleyblank 1983b:78)
- 2-408 復株累若鞞 *Fùchúlěi rědī* buk-ḍio-lui ʔa-te 31-8 B.C.E. [*HS* 94B:3807], a Xiōngnú *chányú*

- 2-409 輶輶 *fénwēn* bun-ʔun 1st c. B.C.E. [Yáng Xióng], ‘wagon’ (Xiōngnú or Central Asian word)
- 2-410 無雷 Wúléi mua-luəi < *ma-rúi 59 B.C.E. [HS 96A:3883], n. of a state
- 2-411 毋寡 Wúguǎ mua-kua^B < *ma-kwaʔ 104 B.C.E. [SJ 123:3177; HS 96A:3895], a Dàyuān king
- 2-412 末振將 Mòzhēnjiāng mat-tšin^(H)-tsiaŋ 28 B.C.E., ca. [HS 96B:3909], n. of a Wūsūn prince
- 2-413 昧蔡 Mèicài məs-sas 104 B.C.E. [SJ 123:31777; HS 96A:3895], ruler of Dàyuān
- 2-414 墨山 Mò shān mək-ʃan [HS 96A:3875], pl. n. (there 墨 is omitted, see Hulsewé & Loewe 1979:83)
- 2-415 燻蟲 mǐlǐ, mǐluǒ mek-lie^B/lua^B 1st cent. B.C.E. [HS, Yáng Xiáng zhuàn], ‘dried curd’? (Xiōngnú or Central Asian word) (Pulleyblank 1963:255); cf. PIE *melg, Tokh. A malke ‘milk’
- 2-416 靡 -mí -mie <-mai, Yán Shīgǔ says in Wūsūn names 靡 sounds like 彌, hence probably no shǎngshēng (B) and no diphthong
- 2-417 務塗 Wùtú muo^H-da 59 B.C.E. [HS 96B:3921], n. of a valley
- 2-418 沐猴 mùhóu mok-go 59 B.C.E. [HS 96A:3885], ‘monkey’ = 3-102 母猴 mǔhóu, mo^B-go < *môʔ-gô [SW]
- 2-419 冒頓 Mào dūn mou^H/mək-tuən < *mũh/mêk-tũn 210 B.C.E., ca. [SJ 110:2888; HS 94A:3749], Xiōngnú ruler 209 B.C.E.-d. 174 B.C.E.. On the transcription of the name, see Pulleyblank (1994:519). Mào could be either LH *mou^H* or *mək* (Yán Shīgǔ says both are possible), but 頓 can only have been *tuən* (not *tut*, *duk*). It has been speculated that the name corresponds to a much later Altaic word, cf. Mongol *bayatur* ‘hero’ (modern *bātar*, *bātor*).
- 2-420 苜蓿 mùxù muk-siuk < *muk-suk 59 B.C.E. [SJ; HS 96A:3885], alfalfa, lucerne

3. Later Hàn period, Buddhist transcriptional dialect

Sources are *Hòu Hànshū* 後漢書; data from Coblin 1982, 1993, Pulleyblank 1962, 1983; their sources are the Buddhist translators Ān Shìgāo 安世高 (after 148 C.E.); Zhī Loujiāqian 支婁迦讖 (Lokakṣema (?)) around 168-188 C.E.; Kang Mengxiang 康孟詳 around 190 C.E.. All the Buddhist transcriptional data are collected and presented in Coblin 1982; here only a selection is provided for illustration.

All syllables ending in an *-a* derived from Former Hàn/OC ones in *-ai*, OC **-âi*.

- 3-1 阿迦貳吒 Ājiāèrzhā ʔa-kia-nis-ta^H. 2nd c. C.E., Skt. Akaniṣṭha (Pulleyblank 1962:120)
- 3-2 阿含 āhán ʔa-gəm, Skt. āgama
- 3-3 阿會亘 āhuìxuán ʔa-yuas-syan, Skt. ābhāsvara
- 3-4 阿魏 āwèi ʔa-ŋus < *ʔâi-ŋwəs (?), Tocharian B *ankwaṣ* ‘asafoetida’; see

- 3-5 阿夷 *āyí* 2-31 央匱 ʔiaŋ-guis
 ʔa-ji, Skt. Asita (Pulleyblank 1983b:85)
- 3-6 阿闍 *āshé/dū* ʔa-dʒa, Skt. *ācāra* (Coblin 1982:126)
- 3-7 阿闍世 *Āshéshì* ʔa-dʒa-śas, Skt. Ajātaśatru (Coblin 1982:127)
- 3-8 阿羅呵 *ālúohē* ʔa-la-ha, Skt. Arhat
- 3-9 阿蘭聊國 *Ālánliáo*, ʔa-lan-leu, ca. 125 C.E. [HHS 78: 2923] 2-41 Yāncài changed its name to Alan, belongs to Kāngjū
- 3-10 阿僧祇 *āsēngqí* ʔa-səŋ-gie, Skt. *asaṅkhyā* ~ *asaṅkhyeya*
- 3-11 阿蠻 *Āmán* ʔa-man, Armenia [HHS, WL]
- 3-12 安敦 *Āndūn* ʔan-tuən, 166 C.E. [HHS] Antonius
- 3-12a 伊秩訾 *Yīzhìzī* ʔi-ʈit-tsie 66 C.E. [HHS], a Xiōngnú king (Psarras 2003:59), cf. 2-46
- 3-13 伊沙 *Yīshā* ʔi-ʂa, Isāna (Pulleyblank 1983b:85)
- 3-14 因坻 *Yīnchǐ* ʔin-ʈi, Indra
- 3-15 優波替 *yōubōtì* ʔu-pa-tʰes < *ʔu-pāi-, Skt. *upatīṣya*
- 3-16 優波塞 *yōubōsè* ʔu-pa-sək < *ʔu-pāi-, Skt. *upāsaka*
- 3-17 溫禺 *Wēnyú* ʔuən-ŋio^(H), 89 C.E. [HHS 53] name of a people
- 3-18 墮樓延 *Huīlóuyán* hye-lo-jan (<hyai-), Vairocana
- 3-19 墮舍利 *Huīshèlì* hye-śa^H-li^H (<hyai-), Vaiśālī
- 3-20 驩泥 *Huánní* huan-nei [Hòu Hànjì] Kuhani or Khvani (Hulsewé & Loewe 1979:82)
- 3-21 迦葉 *Jiāyè* kia-jap, Skt. *kāśjapa*
- 3-22 迦維羅衛 *Jiāwéiluówèi* kia-wi-la-was, Kapilavastu
- 3-23 劫貝(娑) *jiébèi(suō)* kiap-pas(-sa), Skt. *kārpāsa* ‘cotton’ (considered Pre-BTD by Coblin, but from medieval dictionaries); 劫 suggests a later Hàn origin
- 3-24 基耶今波羅 *jīyējīnbōluó* kiə-ja-kim-pa-la, Skt. *keśakambala*
- 3-25 雞鹿 *Jīlù* ke-lok, 89 C.E. [HHS 53] n. of a mountain (de Groot 1921:182) = 稽落 kei-lak
- 3-26 稽落 *Jīluò* kei-lak (k^{heiB}-)89 C.E. [HHS 53] n. of a mountain (de Groot 1921:182) = 雞鹿 ke-lok?
- 3-27 句決 *Gōujué* ko/kio^H-kue [HHS] an Awar head-dress, cf. Mongol *kökül* (Pulleyblank 1983a:453)
- 3-28 拘彌 *Gōumí* ko-mie < *kô (or ko)-me [HHS] Khema?
- 3-28 拘纒 *Gōulèi* ko-luis < *kô-rus, Kurūṣu (Pulleyblank 1983b:100)
- 3-30 拘翼 *Gōuyì* ko-jik [late 2nd c. C.E.] Kauśika (Pulleyblank 1962:77)
- 3-31 丘就卻(却, 劫?) *Qiūjiùquè* k^hu-dziu^H-kiak (kiap?) 74 C.E., ca. [HHS 78: 2920] = ‘Kujula Kadphises’, actually Prakrit Kujulakasa, Kuyulakaphsa etc., Greek Kozoulokadphises (J. Filliozat p.232), established the Kushan state (Pulleyblank 1962:109, 1968:254)
- 3-32 犍陀越 *Jiāntuóyuè* gian^B-da-wat, Skt. *gandhavatī*
- 3-33 群那 *qúná* gun-na, Skt. *guṇa*

- 3-34 恆 Héng gəŋ, Gaṅgā
 3-35 和陀波利梳代 hétuóbōlishúdài yua-da-pa-li^H-žuit-də^H, Skt. *vrataparisuddha*
 3-36 和夷羅 héyíluó yua-ji-la, Skt. *vajra* (Pulleyblank 1983b:85)
 3-37 活逸 huòyì yuat-jit, Skt. *vajra* (Coblin 1982:136)
 3-38 閻高珍 Yán-gāo-zhēn wam-kau-ṭin 125 C.E., ca. [HHS 78:2921] Vīma Kadphises, Kushan king, son of Kujula Kadphises (Pulleyblank 1968)
 3-39 惟摩羅 wéimóluó wi-ma-la, Skt. *vimala*
 3-40 月支/枝 Yuèzhī nyat-kie = 2-196 月氏 nyat-kie
 3-41 天竺 Tiānzhú tʰen-ṭuk 120 C.E. [HHS 78:2921] Hinduka (India) (Pulleyblank 1962:90, etc.)
 3-42 持至尸逐侯 Chizhishízhúhóu ḍiək-tsis-si-ḍuk-yo 189 C.E. [HHS 109] Xiōngnú *chányú*, overthrown in C.E. 189
 3-43 兜術[陀] dōushù(tuó) to-žuit[-da] Skt. *tuṣita* (Pulleyblank 1983b:85)
 3-44 兜沙 dōushā to-ša, Skt. *tuṣāra*
 3-45 對馬 Duimǎ tuəs-ma^B <-ma? [WL] Tsushima (Pulleyblank 1962:218); 2nd c. C.E.
 3-46 澤散 Zésàn ḍak-san^H [WL] Alexandria
 3-47 檀石槐 Tánshíhuí dan-dzak-yuəi [HHS?] Xianbi leader
 3-48 羅刹 luóchà la-tʂʰat, Skt. *rākṣasa*
 3-49 賴吒和羅 làizhàhéluó las-ta^H-yua-la, Skt. *rāṣṭrapāla*
 3-50 藍氏 Lánshì lam-kie/dže [HHS 118] capital of Dàxià, Khulm ? (Pulleyblank 1962:122)
 3-51 臨兒 Línér lim-ŋe, Skt. Lumbini (Pulleyblank 1983b:79)
 3-52 邪馬臺 Yémǎtái ja-ma^B-dô [HHS, Dóngyí] Japanese Yamato (so Yakhontov cited by Pan 2000:271)
 3-53 鹽 Yán jam, Skt. *yama*
 3-54 閼叉 yuèchā juat-tʂʰa, Skt. *yakṣa*
 3-55 踰旬 yúxún jo-zuin, Skt. *yojana* (Pulleyblank 1983b:85)
 3-56 那提迦葉 nàtíjiāyè na-de-kia-jap, Skt. *naḍikāśyapa*
 3-57 那替 nàtì na-tʰei^H, Skt. *naḍī* ‘river’
 3-58 若榴 réliú ná-liu < *na-ru, ‘pomegranate’ [Nandufu 100 C.E.] Sogdian *n’r’kh* (= *naraka) (Pulleyblank 1962:119 reads *na-liu^H* < *na-ruh)
 3-59 南無 nánwú nəm-muo, Skt. *namo* ‘name’
 3-60 泥拘類 níjūlèi nei-kio-luis, Skt. *ñagrodha* (Pulleyblank 1983b:100: Pkt. *z* < Skt. *dh*)
 3-61 占蔔 Zhānbó tsām-bək, Skt. *campaka*
 3-62 禪 chán džan, Skt. *dhyāna*
 3-63 質多 zhìduō tsit-ta, Skt. *citta*
 3-64 晨那 chéná džin-na, Skt. *jina*
 3-65 術闍 shùdū/shé žuit-dža, Skt. *vidyā*, cf. Gandhara vija (Coblin 1982:126)

- 3-66 舍頭諫 *shètóujiàn* śa^{B/H}-do-kan^H, Skt. *śārdūlakarṇa* (BTD or later form) (Pulleyblank 1962:123)
- 3-67 釋迦文 *Shìjiāwén* śak-kia-mun, Shakyamuni
- 3-68 尸 *shī* śi, Skt. *śīla*
- 3-69 尸逐 *Shīzhú* śi-duk 89 C.E. [*HHS* 53] Xiōngnú title (de Groot 1921:183)
- 3-70 首呵 *shǒuhē* śu^B-ha, śuʔ-ha, Skt. *śubha*
- 3-71 疏問 *shūwèn* śa-mun^H < *sra-mənh/s, Skt. *śramaṇa* (Pulleyblank 1983b:79)
- 3-72 沙奇城 *Shāqí* śa-kie/gie 75 C.E. ? [*HHS* 78: 2922] town in NW India
- 3-73 沙竭 *shājié* śa-giat, Skt. *sāgara*
- 3-74 沙律 *shālǜ* śa-luit, Skt. *śāriputra*, Pkt. *śārīvutra* (Pulleyblank 1983b:79)
- 3-75 質 *zī* tsie [WL] Xiōngnú word for ‘slave girl’; acc. to Pulleyblank (1994:525) Tibetan Aza (sic!), one of the names of the Tùyùhún 吐谷渾.
- 3-76 桑門 *sāngmén* saŋ-mən [ca. 25 C.E.; *HHS* 42] Skt. *śramaṇa* (Pulleyblank 1983b:78)
- 3-77 三昧 *sānmèi* sam-məs, Skt. *samādhi* (Pulleyblank 1983b:100; Skt. *dh* > Pkt. *z*)
- 3-78 僧那僧涅 *sēngnásēngniè* səŋ-na-səŋ-net, Skt. *sannāhasannaddha*
- 3-79 私渠北鞬 *Sīqúběidī* si-gja-pək-te 89 C.E. [*HHS* 53] pl. n. (river, mountain?) (De Groot 1921:183)
- 3-80 屑頭邪 *xiètóuyé* sit-do-ja (for 屑 suət-?) [Wèilüè] *śuddhodana* (Pulleyblank 1983b:79) (Pre-BTD)
- 3-81 須菩提 *xūpútí* sio-bo-de, Subhūti (Pulleyblank 1983b:100)
- 3-82 須釐 *xūdī* sio-tes, Skt. *sudṛśa*
- 3-83 粟弋 *Sùyì* siok-jik < sok-lək, 120 C.E., ca. [*HHS* 78: 2922] Sùyì, Soyđ or Soyđik (Pulleyblank 1962:116). = 2-367 粟德; 2-375 史
- 3-84 波羅奈 *Bōluónài* pa-la-nas, Vārāṇasī (Benares) (Pulleyblank 1973:370)
- 3-85 波羅門 *bōluómén* pa-la-mən, Skt. *brāhmaṇa*
- 3-85a 波調 *Bōtiáo* pa-deu 229 C.E., Bazdeo= Vasudeva (Yuèzhī ruler) (Pulleyblank 1983b:80)
- 3-86 般若 *bānré* pan-ña, Skt. *prajñā*, Pkt. *pañña*
- 3-87 磐起國 *Pánqǐ guó* ban-k^hiə^B 75 C.E., ca. ? [*HHS* 78:2921] country in NW India
- 3-88 泚沙, 瓶沙 *Píngshā* beŋ-ša, Skt. Bimbisāra (Pulleyblank 1983b:85)
- 3-89 比伊潘羅 *bǐyī fānlúo* pi^B-ʔi-p^han-la, 180 C.E. *bṛhatphala* (Pulleyblank 1962:90)
- 3-90 比丘 *bǐqiū* pi^B-k^hu, Skt. *bhikṣu* (Pulleyblank 1983b:78)
- 3-91 比盧持 *bǐlúchí* pi^B-la-ɕiə, Skt. *vairāṭi-*
- 3-92 菩薩 *púsà* bo-sat, Skt. Bodhisattva (Pulleyblank 1983b:100)
- 3-93 菩提 *pútí* bo-de, Skt. *bodhi* (Pulleyblank 1983b:100)
- 3-94 濮達 *Búdà* pok-dat 75 C.E. [*HHS* 78: 2921] Pkt. Pakhalavati, Skt. Puṣkālavati, Πευκελαῶτις (Peukelaōtis) pl. n. = 2-387 撲挑 p^hok-t^heu/-deu^B (Pulleyblank 1983b:78)
- 3-95 楓摩 *fēngmó* puəm/puəŋ-ma, BTD Skt. *brahma*
- 3-96 梵 *fān* buam, BTD Skt. *brahma*

3-97 摩訶 <i>móhē</i>	ma-ha, Skt. <i>māhā</i> ‘great’
3-98 摩竭提 <i>Mójiéti</i>	ma-giat-de, Skt. <i>Māgadha</i>
3-99 莫邪 <i>mòyé</i>	ma ^H -ja, Skt. <i>māyā</i> (Pulleyblank 1983b:79)
3-100 無弋 <i>wúyì</i>	mua-jik, Qiang language ‘slave’ (Zhèngzhāng 2000:15)
3-101 彌勒 <i>Mílè</i>	mie-lək, Maitreya
3-102 母猴 <i>mǔhóu</i>	mo ^B -yo < *moʔ-go, 100 C.E. [SW] ‘monkey’ = 2-418 沐猴 mok-go [HS 96A:3885]
3-103 文殊師利 <i>Wénshūshìlì</i>	mun-dzo-ši-li ^H , Manjuśrī

Abbreviations

BTD	Buddhist Transcriptional Dialect
EY	Ēryǎ 爾雅
GY	Guǎngyùn 廣韻
GSR	<i>Grammata serica recensa</i> , see Karlgren
Hulsewé & Loewe	Hulsewé & Loewe 1979
HHS	<i>Hòu Hànnshū</i> 後漢書
HS	<i>Hànnshū</i> 漢書
IE	Indo-European
LH	‘Later Hàn Chinese’, or Hàn Chinese
lit.	literally
MC	Middle Chinese = QYS
MK	Mon-Khmer
MTZZ	<i>Mù tiānzǐ zhuàn</i> 穆天子傳
n.	name
n. pr.	personal name
n.s.	new series
OC	Old Chinese
Pkt	Prakrit
pl. n.	place name
q.v.	<i>quod vide</i> , see there
QYS	Qièyùn system = MC
SJ	<i>Shǐjì</i> 史記
Skt.	Sanskrit
ST	Sino-Tibetan
Toch.	Tocharian, Tokharian
WT	Written Tibetan

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漢代外來語音譯之音韻研究

許思萊

華特堡學院

漢代前期用來音譯中亞與印度語系等外來語的文字，反映出一些音韻現象，使我們更瞭解當時的漢語，以及其他外語。

關鍵詞：歷史音韻學，漢代漢語，中亞語言，音譯

Why Did Sin Sukju Transcribe the Coda of the *Yào* 藥 Rime of 15th Century *Guānhuà* with the Letter ㄹ <ɾ>?*

Zev Handel

University of Washington

The Korean sinologist and linguist Sin Sukju (1417-1475) devised transcriptions for contemporary Mandarin pronunciation using the then newly-invented Korean alphabet which is today known as Hangul. These transcriptions have been preserved in a number of texts. Sin's transcriptions clearly reflect a Mandarin variety in which words having the ancient entering tone had lost their *-p -t -k* endings but were still pronounced abruptly, possibly accompanied by a glottal-stop coda [ʔ]. While Sin transcribed the coda of most Chinese entering-tone syllables using the Hangul letter ㄷ <ɖ>, he transcribed the coda of one syllable type, that found in the *Yào* 藥 rime, with the Hangul letter ㄹ <ɾ>. Sin's own explanation of his transcriptional practice reveals no reason for this apparent discrepancy; in both cases it would seem that the letter is intended to represent abrupt glottal closure. This aspect of Sin's notational practice has perplexed scholars up to the present day.

I argue that the explanation for the puzzling discrepancy can be found in factors related to the orthographic structure of Hangul. Taking these factors as a starting point, it is concluded that Sin's use of ㄹ <ɾ> is a logical and elegant solution to the orthographic and transcriptional challenge he faced. Sin's coda <ɖ> and coda <ɾ> have the same function of representing the abrupt quality of the entering tone. His use of distinct letters is motivated by graphic as well as phonetic factors.

Key words: Hangul, Sin Sukju, popular reading, *Guānhuà*, *Yào* rime, entering tone

1. Introduction

This paper addresses a puzzle in the transcription of *Míng* 明-era *Guānhuà* 官話 (Mandarin) transcriptions recorded by the Korean sinologist and linguist Sin Sukju 申叔

* This paper was inspired by an email exchange with South Coblin that took place in April, 2003, in which he raised the problem of Sin Sukju's Popular Reading transcription of *Yào* 藥 rime syllables. Prof. Coblin responded to an initial sketch of my proposed solution to the problem in this way: “*You* should at some point write a note on that” (personal communication, April 10, 2003). Fully intending to do so, I nevertheless set the matter aside for nearly a decade. It is now an honor for me to have the opportunity to present my views in this volume dedicated to Prof. Coblin. I would like to thank two anonymous reviewers for helpful comments and suggestions. I hasten to add that any errors or misconceptions are entirely my own responsibility.

舟/신숙주 (1417-1475).¹ Sin, an accomplished polyglot, was King Sejong’s “principal phonological investigator” (Ledyard 1997:43), well trained in traditional Chinese phonology and intimately involved with the creation, dissemination, and application of the Korean alphabet known today as Hangul (Han-geul 한글), which was invented by the king around 1443.² He was also what we would today call an accomplished field linguist. Making use of the powerful new tool Hangul, Sin turned his remarkable talents to the accurate transcription of the pronunciation of the spoken Mandarin of his time. Sin was well aware of the discrepancies in the phonologies of Korean and Mandarin Chinese, and made it clear that his Hangul transcriptions were a species of phonetic notation, to be distinguished from the orthographic function of the alphabet in the normal Korean context.³ Accordingly, he modified letter shapes, used novel combinations of letters, or repurposed the value of letters as needed to accurately represent the phonetics and phonotactics of Chinese. In the introductory material to his transcribed character pronunciations, he provided detailed descriptions of the sounds he was recording and his notational conventions for doing so. The accuracy and reliability of these descriptions have made Sin’s Hangul transcriptions an invaluable source of information on the pronunciation of Ming-era Guānhuà. Coblin (see e.g. Coblin 2007), among other scholars, has made extensive use of this data in the reconstruction of various forms of 15th century Mandarin.

Nevertheless, a few of Sin’s transcriptional practices are difficult to analyze, and there remains today uncertainty about their phonetic interpretation. In this paper I investigate one such transcriptional practice that has confounded modern researchers, and offer a possible solution to the puzzle.

¹ Korean terms are Romanized using the Republic of Korea’s Revised Romanization of 2000. Chinese terms are Romanized using *Hànyǔ pīnyīn*. The two are easily distinguished, as all Romanized Chinese syllables have diacritic tone marks while Romanized Korean syllables do not.

² The modern name for the Korean alphabet came into use in the early 20th century. The alphabet was originally called *Hunmin jeong-eum* 訓民正音/훈민정음 (“Correct sounds for the instruction of the people”) and *Eonmun* 諺文/언문 (“Vernacular writing”). Although anachronistic, for simplicity and consistency I have chosen to use the modern term Hangul to refer to the alphabet at all historical stages. Also for simplicity, I use “Hangul”, the most common English spelling, rather than the Revised Romanization form “Han-geul”.

³ These transcriptions of contemporary Chinese pronunciation should not be confused with Sino-Korean pronunciation (*Hanja-eum* 漢字音/한자음), the conventionalized Korean reading pronunciation of Chinese characters as recorded in character dictionaries from the 15th century to the present. Sino-Korean pronunciations are a component of the Korean, not the Chinese, language.

2. Background and sources

Sin's work has been investigated and described by a number of scholars (see Kim 1991, Yüchí 1990, Coblin 2007 for published work in English and Chinese); I will rely on chapter 1 of Kim (1991) for this summary, which will serve as necessary background for the discussion to follow.

Sin presented two transcriptions for Chinese characters, which he termed Standard Readings (*jeong-eum* 正音) [SR] and Popular Readings (*sog-eum* 俗音) [PR]. These represented two different varieties of contemporary Mandarin. SR is believed to have represented an artificial dictionary-based standard, while PR most likely represented the actual pronunciation of educated Guānhuà speakers (Coblin 2007:7-11). Issues surrounding the precise identification of the Mandarin source varieties underlying SR and PR, while of great interest, are not strictly relevant to the present study and will not be further addressed here.

Both SR and PR transcriptions were recorded in two major works of Sin's:

- 1) *Hongmu jeong-un yeokhun* 洪武正韻譯訓 (1455), a modified and annotated version of the Chinese rime dictionary *Hóngwǔ zhèngyùn* 洪武正韻 (1375);
- 2) *Saseong tonggo* 四聲通考 (ca. 1450).

It is worth bearing in mind that the Korean alphabet was invented in 1443 or 1444, and officially promulgated in 1446; Sin's works were prepared only a few years after that watershed event.

Although *Saseong tonggo* is largely lost today, its transcriptions are preserved (with some changes) in a later work called *Saseong tonghae* 四聲通解 (1517) by the linguist Choe Sejin 崔世珍/최세진 (1478?-1543). We are also fortunate in that the “general illustrations” (*fǎnlì/beomnye* 凡例) section of *Saseong tonggo* survives because Choe included it in *Saseong tonghae*, and it is there that we find Sin's own explanations of his transcriptional practices.

Choe, the author of *Saseong tonghae*, also prepared definitive revised editions of two textbooks that had been compiled in Korea for the purpose of teaching spoken Mandarin to Koreans, *No geoldae* 老乞大 and *Bak tongsa* 朴通事. The base texts are passages written in colloquial Mandarin; Choe's *beonyeok* 翻譯 “translated” editions of ca. 1510 included annotations in the form of sentence-by-sentence Korean translations as well as Hangul-notated pronunciations of each written Chinese character. Choe provided two Hangul transcriptions below each character, one written on the left side and known as the Left Reading (*jwa-eum* 左音) [LR] and one written on the right side and known as the Right Reading (*u-eum* 右音) [RR]. The RR reflects a variety of 16th century Mandarin contemporaneous with Choe (and thus 60 years later than Sin's PR pronunciations

reflected in Choe's LR). Of interest to us here are the LR readings, which agree almost perfectly with Sin's PR, and which Choe indicates were copied from Sin's *Saseong tonggo*.

It is in Sin's PR that we find the notational puzzle that is the object of the present study. To reiterate, these popular readings are found in three sources:

- 1) *Hongmu jeong-un yeokhun* PR;
- 2) *Saseong tonghae* PR, which accurately reflect the PR transcriptions of *Saseong tonggo*;
- 3) *Beonyeok No geoldae* and *Beonyeok Bak tongsa* LR, which are derived from Sin's PR.

3. Entering-tone transcriptions in Sin's PR

In the "general illustrations" section of *Saseong tonggo*, written in Literary Chinese, Sin makes it clear that the PR reflects a variety of Mandarin in which the entering (*rù* 入) tone had already lost its distinctive stop endings [p t k], but had not yet merged with the other three tones.⁴ Of the entering tone he says:

且今俗音雖不用終聲而不至如平上去之緩弛。

Moreover, the [entering tone] popular readings of the present time do not have coda consonants, but neither do they reach the point of being as lax as the level, rising, and departing tone [pronunciations].

From this description it is apparent that the [p t k] endings of medieval Chinese were already lost, but that entering-tone syllables were still pronounced with a distinctively abrupt or checked articulation, distinguishing them from the "lax" or unchecked syllables of the other tones. Most likely this means that a glottal stop coda was present, although it is possible that these were open syllables distinguished by a noticeably short or clipped pronunciation.

⁴ Medieval Chinese contained four tones, recognized and named by contemporary Chinese lexicographers, known as level (*píng* 平), rising (*shāng* 上), departing (*qù* 去), and entering (*rù* 入). The entering tone, which was short and abrupt, was compatible only with checked syllables having stop codas *-p -t -k*. In traditional Chinese phonological practice, the term has been applied to syllables in later forms of Chinese that had stop codas (including *-ʔ*) and/or were descended from entering-tone syllables of medieval times. In the development of modern Mandarin dialects, codas *-p -t -k* were all lost, and in most Mandarin varieties (including that of Modern Standard Mandarin) this resulted in the merger of these syllables with those of the other, non-checked tones.

In the next sentence, Sin tells us how he chose to represent the entering-tone syllables in transcription:⁵

故俗音終聲於諸韻用喉音全清 ㄷ ,

Therefore, for the popular reading the final consonant sound of the various [entering-tone] rimes [is notated] using the letter for the fully clear laryngeal sound, ㄷ <ㅸ> ...⁶

And, indeed, we find that in Sin's PR transcriptions, ㄷ <ㅸ> is the orthographic coda in nearly all entering-tone syllables. Consider the following examples:

Character	PR Hangul Spelling ⁷	Modern Mandarin	Modern Sino-Korean	Middle Chinese Ending Consonant
合 'join'	• ㅎ ㅎ+ㅣ+ㄷ <hhəㅸ>	<i>hé</i>	<i>hap</i> 합	-p
入 'enter'	• ㄴ ㄴ+ㅍ+ㄷ <zyuㅸ>	<i>rù</i>	<i>ip</i> 입	-p
吉 'auspicious'	• ㄱ ㄱ+ㅣ+ㄷ <giㅸ>	<i>jí</i>	<i>gil</i> 길	-t
潑 'splash'	• ㅍ ㅍ+ㅌ+ㅣ+ㄷ <puəㅸ>	<i>pō</i>	<i>bal</i> 발	-t
目 'eye'	• ㅁ ㅁ+ㅌ+ㄷ <muㅸ>	<i>mù</i>	<i>mok</i> 목	-k
國 'country'	• ㄱ ㄱ+ㅌ+ㅣ+ㄷ <guiㅸ>	<i>guó</i>	<i>guk</i> 국	-k

(Note that these syllables are all marked with a single dot on the left indicating entering tone.)

These may be contrasted with non-entering-tone syllables:

⁵ Tones were also represented by a system of side dots. But since the departing and entering tones were both represented by a single side dot, a difference in segmental notation was further required to distinguish them.

⁶ "Fully clear laryngeal sound" is a reference to the initial consonant *yǐngmǔ* 影母 of the medieval Chinese phonological tradition, reconstructed as a glottal stop for the Middle Chinese period. This sound had no phonemic status in Korean; the Hangul letter ㄷ was designated to represent this sound in Korean transcriptions of the traditional set of Chinese initial consonants. I transcribe the letter here as <ㅸ>. It should not be assumed that it necessarily represents the sound [ʔ], though that is certainly a possibility for the notational usage Sin describes here.

⁷ Many of the PR Hangul syllable forms are not in the current Unicode standard and are therefore difficult to encode in a computer file, so I am representing the syllables here as graphic images and sequences of individual letters. The forms are adapted from the index of *Saseong tonghae* spellings in Yu (1974:333-343).

Character	PR Hangul Spelling	Modern Mandarin	Modern Sino-Korean
和 ‘and’	•하 하+ㅣ <hha>	<i>hé</i>	<i>hwa</i> 화
摩 ‘rub’	무 □+ㅏ+ㅣ <muə>	<i>mó</i>	<i>ma</i> 마
桂 ‘cassia’	•귀 ㄱ+ㅓ+ㅣ <gui>	<i>guì</i>	<i>gye</i> 계

(Note that for these syllables a single dot on the left indicates departing tone.)

However, this transcriptional practice is not found for all entering-tone syllables, as Sin makes clear in the next clause:

藥韻用唇輕全清 ㄴ 以別之。

... and of the *Yào* 藥 rime using the letter for the light lip fully clear sound, ㄴ <f>, in order to distinguish them [from syllables in the corresponding non-entering tones].⁸

For example:

Character	PR Hangul Spelling	Modern Mandarin	Modern Sino-Korean	Middle Chinese Ending Consonant
藥 ‘medicine’	•약 ㄹ+ㅓ+ㄴ <Ųyaf>	<i>yào</i>	<i>yak</i> 약	-k

This brings us to the central issue of the current study. Why did Sin choose to represent *Yào* rime entering tone syllables with coda letter ㄴ <f>?⁹ There is no evidence at all to suggest that any contemporary Chinese dialect had a pronunciation [f] in such

⁸ “Light lip fully clear sound” is a reference to the initial consonant *fěimǔ* 非母 of the medieval Chinese phonological tradition, reconstructed as [f] for the Late Middle Chinese period. I transcribe the letter here as <f>. The sound [f] had no phonemic status in Korean; the Hangul letter ㄴ was designated to represent [f] only in Korean transcriptions of the traditional set of Chinese initial consonants. Graphically, it is a modified form of the letter ㅂ . In addition to its use in transcribing the *Yào* rime, Sin employed the letter in PR to represent the Guānhuà initial consonant [f]. (The same Hangul letter ㄴ was also used in the spelling of native Middle Korean words to represent the sound reconstructed by most scholars as [β]. When that sound later disappeared from standard Korean, the letter ㄴ became obsolete; it is not found in current Hangul usage.)

⁹ There are 11 entering-tone rimes in *Saseong tonghae*. Those derived from earlier -p are: Qī 緝, Hé 合, Yè 葉; from earlier -t are: Zhí 質, Wù 勿, Hé 曷, Xiá 轄, Xiè 屑; from earlier -k are: Wū 屋, Yào 藥, Mò 陌.

syllables; indeed, such a pronunciation seems extremely implausible given all of the diachronic and contemporary evidence concerning Guānhuà phonology. Setting aside Sin's peculiar transcription, it seems clear that the 15th century *Yào* rime was pronounced something like [aw] or [awʔ] (Kim 1991:189-192, Coblin 2007:35-37, Park 2004:85-88). It is the entering-tone counterpart of the level-tone *Yáo* 交 rime, which is reconstructed [aw] and transcribed by Sin with the letter sequence ㄹ + ㅁ <aw>. For example:

Character	PR Hangul Spelling	Modern Mandarin	Modern Sino-Korean
齧 'bite'	ㄹ + ㅁ <Oyaw> 齧 ㄹ + ㅁ <Oyaw>	<i>yǎo</i>	<i>gyo</i> 𪎮

Scholars have struggled to explain Sin's transcription of the *Yào* rime, which Kim (1991:33) called "peculiar". Park (2004:181) suggests "[t]he reason why Sin chose ㄹ may be that it can suggest the labial quality of the off-glide -w". Other scholars simply note that ㄹ <f> was intended to represent [w], [u], or [o] (possibly checked), without however explaining the underlying motivation for this usage (Gang 1973:102-103, Bak 1983:235, An 1988:11-12, Choe 2005:324ff). These explanations are unsatisfying. Sin makes it clear that all of the entering-tone syllables were pronounced distinctly from their non-entering-tone counterparts by virtue of being less "lax". Yet Gang (1973) argues that ㄹ <f> simply represents off-glide [u], which fails to take Sin's distinction into account, and fails to explain how its usage is to be distinguished from that of ㅁ <w>. On the other hand, explanations like Park's that recognize an abrupt quality to the entering-tone *Yào* rime fail to explain why Sin didn't employ the letter ㅁ <w> for all entering-tone syllables.

To my knowledge, no satisfactory solution has been identified and published. We seek a more robust explanation for what appears at first glance to be a bizarre and ill-considered transcription on the part of a highly logical and systematic linguistic scholar. Why did Sin not represent this rime as ㄹ + ㅁ + ㅁ <awʔ> (i.e. in parallel fashion to the notation of other entering-tone rimes), or by some other means that did not employ the letter ㄹ <f>?

That this is a genuine puzzle, and not simply a matter of modern scholars overlooking some obvious explanation, is confirmed by the fact that Choe Sejin, working less than a century after Sin, was also puzzled by the notation. In the "general illustrations" section of *No geoldae* and *Bak tongsa*, Choe said of Sin's transcription of the *Yào* rime:

...通考以ㄹ爲終聲者殊不可曉也。

... it is not clear why the [Saseong] *Tonggo* used the letter ㄹ <f> as the final sound [for the rime *Yào* 藥].

Sin himself says little to assist us in understanding this notational practice, only (as we have seen) that both notations, ㄹ <ʔ> and ㄹ <ɸ>, are intended to distinguish entering-tone syllables from their corresponding syllables in other tones. Sin’s practice can be understood, then, as primarily a graphic device—that is to say, a way of drawing a distinction between non-entering-tone and entering-tone syllables, rather than of representing a particular segment or sequence of segments. Naturally, in drawing this distinction, Sin would have selected a graphic device that is suggestive of the phonetic distinction, which he explicitly states is a lack of “laxity”. The choice of the letter ㄹ <ʔ> for the coda of most entering-tone rimes seems quite natural in this regard. We can summarize the puzzle of Sin’s transcription of the *Yào* rime in the form of two possibly inter-related questions:

- 1) Why did Sin not use ㄹ <ʔ> in the transcription of the *Yào* rime as well?
- 2) Why did Sin choose ㄹ <ɸ>, and not some other letter or letter combination, to represent the coda of the *Yào* rime?

The answer to the second question has potential consequences for how we interpret Sin’s notation as an evidentiary source for the actual Chinese popular reading of the time, and may lead us to consider whether to revise the reconstruction [awʔ] for the *Yào* rime.

4. Orthographic considerations and the nature of written Hangul syllables

It is my contention that the solution to this problem can only be found through an understanding of Sin’s conception of the inherent structure of Hangul writing itself, taking into account both orthographic syllable structure and the structural relationships among individual letter forms. A satisfying solution to the problem should also be able to explain why Choe, working less than a century after Sin, failed to grasp Sin’s motivation.

Let us then first review some of the orthographic features of the earliest incarnation of Hangul, as Sin would have understood them. We can begin by turning to the *Hunmin jeong-eum haerye* 訓民正音解例/훈민정음해례 (1446) [HJH], which set out the design principles behind the newly promulgated Korean alphabet and provided practical usage examples for both native Korean and Sino-Korean syllables. Sin Sukju was, along with a number of other linguists in the Jiphyeonjeon 集賢殿/집현전 (“Academy of Worthies”), one of the compilers of this work (Kim-Renaud 1997:1).

The Korean alphabet combines individual letter shapes into rectangular blocks representing syllables.¹⁰ In HJH, the syllable is analyzed as having three basic components,

¹⁰ These blocks were designed to have the same shape and size as a single Chinese character,

each represented by one or more letters:

choseong 初聲/초성: initial sound = onset (consonantal)

jungseong 中聲/중성: medial sound = nucleus (vocalic)

jongseong 終聲/종성: final sound = coda (consonantal)

These terms were applied to both Korean and Chinese syllables, and could be understood in either a phonological or an orthographic sense. Although onsets and codas for native Korean syllables could consist of graphic consonant clusters (presumably representing Middle Korean phonological consonant clusters), onsets and codas of Sino-Korean readings of Chinese characters could only be simple consonants or zero.¹¹ In onset position zero was represented by the letter ㅇ; in coda position its use was optional.¹² *HJH* says:

…以 ㅇ ㄴ ㄹ ㅇ ㄷ ㅁ 六字爲平上去聲之終。…且 ㅇ 聲淡而虛不必用於終而中聲可得成音也。

… the six letters ㅇ <ng>, ㄴ <n>, ㄹ <m>, ㅇ <Ø>, ㄷ <l>, and ㅁ <z> are the final sounds found in level, rising, and departing tones ... [but] the sound ㅇ <Ø> is weak and empty, it need not be used in final position, and thus the medial sound can achieve completion of the syllable.

whose Chinese and Korean pronunciations were also one syllable long. This allowed for Chinese characters and Hangul to be used in mixed-script applications in a functional and aesthetically pleasing manner.

¹¹ One might cite as an exception the “muddy” initial consonants of traditional Chinese phonology, reconstructed as voiced or murmured consonants for Middle Chinese, which were represented with geminate consonant letters (e.g. ㄹㄹ <hh>) in *HJH*. However, these geminate forms can be conceptualized as single, rather than cluster, consonants.

¹² In pre-modern contexts this letter must be distinguished from the letter ㅇ <ng> representing a velar nasal [ŋ]. The two graphs have been conflated in modern times, and the graphic distinction, though encoded in the Unicode standard, is often obscured when rendered by computer fonts. Originally the letter ㅇ <Ø> was a simple circle (which is topped by a short serif in some typefaces), while the letter ㅇ <ng> was a circle topped with a vertical line. In theory these contrasted in initial position when recording Sino-Korean pronunciations, but because native Korean phonology precluded the occurrence of /ŋ/ in initial position, the Sino-Korean graphic distinction was purely artificial. When orthographic practice changed so that zero coda was no longer ever written with ㅇ <Ø>, and Middle Chinese /ŋ/ was no longer artificially indicated in initial position for Sino-Korean readings, the two graphs entered into complementary distribution, with ㅇ <Ø> occurring only in onset position and ㅇ <ng> occurring only in coda position; they were then graphically merged without leading to ambiguity.

Although from the very beginning it was common practice to omit the graph \circ <Ø> in final position when writing Korean, as evidenced in the example syllables given in *HJH* itself, it is quite clear that these syllables were conceived of as having a coda. Moreover, in the official dictionary of Sino-Korean pronunciations known as *Dongguk jeong-un* 東國正韻 (“Correct rimes of the Eastern Kingdom”), compiled under royal auspices in 1447 (the year after the promulgation of Hangul), the zero coda is always graphically represented by \circ <Ø>. The man with primary responsibility for the compilation of *Dongguk jeong-un* was none other than Sin Sukju.

In light of the above points, we can venture a hypothesis concerning how Sin would have viewed the distinction in 15th century Mandarin between non-entering-tone syllables and their corresponding entering-tone syllables. The phonological pattern that Sin observed between open syllables and checked syllables would, orthographically, have been conceptualized as an alternation of two consonant letters, representing zero coda and a non-zero coda respectively: \circ <Ø> vs. $\overline{\circ}$ <?>. Graphically, the two letters have a similar shape, and we know from the *HJH* that the letter shape of $\overline{\circ}$ was derived from the shape of \circ through the addition of a single stroke. For Sin, *both graphically and phonologically*, $\overline{\circ}$ <?> was the stop-coda counterpart of the non-stop coda \circ <Ø>.¹³

We are now in a position to explain the thought process underlying Sin’s PR notation for the Chinese *Yáo* rime. Its non-entering-tone counterpart *Yáo* 爻¹⁴ was pronounced [aw]; furthermore, *Yáo* is the only rime in the *Hongmu jeong-un yeokhun* and the *Saseong tonghae* that both ends in [w] and has an entering-tone counterpart. Unlike other non-entering tone rimes that had entering-tone counterparts, the *Yáo* rime did not have a zero coda. Sin interpreted [aw] not as a complex nucleus followed by zero coda, but as simple nucleus [a] followed by consonant coda [w]. This is apparent from his transcription of this [w] by Hangul consonant letter ㅞ <w> rather than by a vowel letter ㅛ <o> or ㅜ <u>, and from the placement of ㅞ <w> below the letter ㅏ <a> within the

¹³ Within the Chinese phonological tradition, rime tables originally paired entering-tone rimes with their homorganic nasal-coda counterparts in the other tones. Thus *-p*-ending rimes were paired with *-m*-ending rimes, *-t*-ending rimes with *-n*-ending rimes, and *-k*-ending rimes with *-ŋ*-ending rimes. This is the arrangement seen, for example, in the Sòng 宋 dynasty rime table *Yùnjìng* 韻鏡. Following the loss of distinctive stop-coda endings *-p -t -k* in northern varieties of Chinese, this kind of pairing was no longer possible in any analysis that referenced contemporary pronunciation. Later northern Chinese phonological works, such as the 14th century Yuán 元 dynasty rime book *Zhōngyuán yīnyùn* 中原音韻, paired entering-tone syllables with non-entering-tone rimes lacking nasal endings.

¹⁴ Here and throughout the article, in accordance with usual practice, *Yáo* stands for the three rimes *Yáo* 爻, *Qiǎo* 巧 and *Xiào* 效, which are identical except for tone: level, rising, and departing, respectively.

Hangul syllable block.¹⁵ The letter ㅁ <w>, a modified form of ㅁ <m>, was originally designated to represent the traditional Chinese initial consonant *wéimǔ* 微母, reconstructed for Early Middle Chinese as [m] and developing in Late Middle Chinese and into Early Mandarin as [w]. Sin employed it in PR to represent the Guānhuà initial sound [w] or [v].¹⁶ Sin could only have conceived of this letter as a consonant graph, and therefore could only have conceived of it as occupying the coda position of the orthographic syllable.

Now let us consider how Sin might have approached the notational representation of the *Yào* rime, the entering-tone counterpart of <aw> written with coda ㅁ. Why did Sin not simply append the graph ㅁ <?>, in parallel with his treatment of other entering-tone rimes, creating the complex coda graph ㅁ ㅁ <w?>?¹⁷

Firstly, as we have observed, Sin did not conceive of Chinese syllables as having consonant cluster onsets or codas. Graphically, a cluster of consonant letters was not a conventionally appropriate orthographic representation. But more importantly, Sin did not conceive of ㅁ <?> as *appended* to a corresponding non-entering-tone syllable. He conceived of it as *alternating* with, or replacing, the zero coda ㅇ <Ø>. Recall that ㅁ <?> was the stop letter corresponding to non-stop letter ㅇ <Ø>. It would not have made sense for Sin to append ㅁ to a syllable with an existing coda (such as the *Yào* rime), any more than it would have made sense for him to transcribe other entering-tone rimes with the sequence ㅇ ㅁ <Ø?>.¹⁸ Sin instead naturally sought out the orthographic stop counterpart

¹⁵ As the *HJH* specifies: “終聲在初中之下。” (“The [letters representing the] final sounds are [placed] below the initial and the medial.”). Lee & Ramsey (2000:44) note that “[King] Sejong and his assistants [including Sin Sukju] took great pains to explain these conventions carefully and in detail because of the special way the symbols had to be used. The letters were certainly phonemic, but they were also designed to fit into syllables. The forms of the vowel (the medials) were made completely differently from the consonants (the initials [and finals]), and the shapes of all were designed with syllabic writing as a precondition.”

¹⁶ As Ledyard (1997:49-50) points out, the use of ㅁ <w> to represent the offglide /w/ of Chinese syllables is a practice also found in *Dongguk Jeong-un*, and was probably influenced by the ‘Phags-pa transcriptions employed by the compilers of the Mongol-Chinese rime book *Ménggǔ zìyùn* 蒙古字韻. For the purposes of this paper, the original reasons for this usage are unimportant; we take the use of coda letter ㅁ <w> as a given in our investigation of Sin’s use of coda letter ㅁ <ㄹ>.

¹⁷ Kim (1991:33) poses this same question, and does not provide an answer.

¹⁸ It may be noted that an orthographic cluster ㅁ ㅁ <l?> was used in *Dongguk Jeong-un* to represent an artificial standard Sino-Korean reading for Chinese characters that had medieval -l coda and popular Sino-Korean pronunciations ending in -l. But this notation was not meant to represent an actual Chinese-language pronunciation, nor did it correspond to any actual pronunciation within the Korean phonological system, and quickly fell out of use. It is not relevant to the argument being made here.

of coda letter 𐄢 <w>, by which it could be replaced. 𐄣 <f> was the obvious, indeed the only possible, choice. Just as 𐄢 <w> is a modified form of letter 𐄠 <m>, 𐄣 <f> is a modified form of letter 𐄡 , the (oral) stop counterpart of 𐄠 <m>. Moreover, just as the letter 𐄤 <ʔ> derives from a modification of the basic shape 𐄠 <Ø> through the addition of a stroke, we are also told in *HJH* that the letter 𐄡 derives from a modification of the basic shape 𐄠 <m> through the addition of a single stroke.¹⁹ Sin's choice of notation creates an orthographic parallel for the representation of what was surely a single phonetic feature across all of the entering-tone rimes:

<u>non-entering-tone coda</u>		<u>entering-tone coda</u>
𐄠 <Ø>: [-Ø]	alternates with	𐄤 <ʔ>: [-Ø]+abrupt
𐄢 <w>: [-w]	alternates with	𐄣 <f>: [-w]+abrupt

Recall that the letter 𐄠 <Ø> in coda position could be omitted by spelling rule, so while it is notionally part of the alternation described here, it does not appear in the PR transcriptions.

The conventional phonetic-symbol transcription of the four Hangul letters—that is, <Ø ʔ w f>—obscures both the graphic and phonetic parallels. In both cases, the graph for the entering-tone coda is visually similar to, and graphically derived from, the graph for the non-entering-tone coda, suggesting that it represents the *corresponding* stop coda. In neither case is the graph identical to the graphs used to represent coda endings [p t k], which Sin wished to avoid in order to make explicit the fact that those older stop sounds were not present in PR. We should therefore not interpret 𐄣 <f> in this context as representing Chinese [f] or anything like it. We should think of 𐄣 <f> as the most natural way to represent the abrupt checked quality of a syllable ending in 𐄢 [w], just as 𐄤 <ʔ> represents the abrupt checked quality of a syllable ending in 𐄠 [Ø].

5. Conclusion

Recall what Sin Sukju himself tells us about his orthographic choices for popular reading entering-tone pronunciations:

¹⁹ Although it may not appear that the shape of 𐄡 could be derived from 𐄠 through the addition of a single stroke, this is in fact how the relationship between the two letters is described in *HJH*, which explicitly identifies the graphic relationship between 𐄠 and 𐄡 as parallel to that between 𐄠 and 𐄤.

Therefore, for the popular reading the final consonant sound of the various [entering-tone] rimes [is notated] using the letter for the fully clear laryngeal sound, ㄹ <ㄹ>, and of the *Yào* rime using the letter for the light lip fully clear sound, ㄹ <ㄹ>, *in order to distinguish them [from syllables in corresponding non-entering tones]*. (my italics for emphasis)

Once we recognized that Sin's notational practice is based fundamentally on the need to draw a distinction from the corresponding non-entering tone syllables, his motivation for the use of ㄹ <ㄹ> and ㄹ <ㄹ> is apparent. His decision was made within the constraints of the normative orthographic practice for the composition of Hangul syllable blocks. The letters ㄹ <ㄹ> and ㄹ <ㄹ> are not intended to represent segmental sounds equivalent to their default use in Hangul orthography (i.e. to represent sounds [ʔ] and [f]/[β]); they are meant rather to represent a non-segmental feature of the PR entering tone which Sin could only fully explain in a descriptive passage:

Moreover, the [entering tone] popular readings of the present time do not have [phonological] coda consonants, but neither do they reach the point of being as lax as the level, rising, and departing tone [pronunciations].

The method of representation is through the use of stop letters in coda position, which although not necessarily representing actual stop sounds are suggestive of the abrupt quality of the entering-tone syllables.²⁰

Sin's notational choice only appears strange to us because we do not today intuitively conceive of Hangul writing in the same way he did. Indeed, by the time that Choe Sejin was working with Sin's PR notations in the following century, the use of the letter ㅇ <0> for zero coda had already fallen out of practice, so that orthographically the entering-tone coda letter ㄹ <ㄹ> appeared to be an addition to, rather than an alternation

²⁰ Although Sin says these syllables have no “coda consonants”, and I have thus argued that the letters employed by Sin were not meant to represent “actual stop sounds”, this does not preclude the possibility that the syllables in question would be notated with coda [ʔ] in modern phonetic notation. We do not know if Sin would have perceived [ʔ] as being a stop consonant. Korean did not then (and does not now) have a /ʔ/ phoneme, and it is doubtful whether the orthographic distinction between initial zero and initial <ㄹ>, maintained for traditional Chinese phonological categories, was pronounceable by Korean speakers. The auditory impression given Sin by a coda [ʔ] cannot be guessed at. Therefore the reconstruction of [awʔ] for the underlying forms in the Guānhuà *Yào* rime remains a viable hypothesis. At the end of §3 I noted that in resolving the puzzle of Sin's notation we might conceivably revisit the reconstruction of the *Yào* rime in 15th century Guānhuà. As it turns out, no such revision is necessary.

with, a non-entering-tone syllable representation. This may be one factor in Choe's confusion over Sin's use of 𐄂 <ɸ>. It is also possible that the glottal ending had been lost entirely in the Yào rime of Mandarin by Choe's time; Choe implies as much in his discussion of Sin's transcription (see Kim 1991:34).

Coblin's reconstructions of the varieties of Chinese that were so carefully captured in Sin Sukju's transcriptions are based on the assumptions that Sin was a skilled linguist with a keen analytical mind who well understood the difference between orthographic and spoken form, and who took care to explain his notational conventions whenever they diverged from the common orthographic practice of his day. As I have shown, Sin's seemingly bizarre use of 𐄂 <ɸ> to represent the 15th century popular Guānhuà pronunciation of Yào rime entering-tone syllables in no way refutes these assumptions. It simply underscores the importance of taking into account the full range of contemporary orthographic norms and conventions when we interpret transcriptional data for the purposes of historical reconstruction.

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試論申叔舟所譯十五世紀官話藥韻之 韻尾輔音與諺文 ㄹ <ɾ> 之關係

韓哲夫

華盛頓大學

朝鮮時代的漢學家及語言學家申叔舟 (1417-1475) 利用當時問世不久的朝鮮諺文字母對明代官話語音進行了對音轉寫，這些轉寫至今仍見於許多傳世文獻中。申叔舟清楚地表明在他所轉寫的明代官話中，入聲韻尾 -p, -t, -k 已近消失，但是還是與非入聲字有明顯的發音區別，可能帶喉塞韻尾 [ʔ]。大部分的入聲韻尾申叔舟都用諺文 ㅇ <ŋ> 轉寫，惟在「藥韻」中，他使用諺文 ㄹ <ɾ> 表示其韻尾。兩個字母都被用來表示緊喉促尾，而字母差別的原因，申叔舟並未具體解釋。學界迄今爲之困惑不已。

本文認爲這種字母運用上的差異實際是爲了符合諺文的造字條理。在此認識基礎上，本文進一步推論使用 ㄹ <ɾ> 韻尾，是申叔舟面臨轉寫挑戰所使用的一種合理而巧妙的手段。無論是韻尾 <ŋ> 或韻尾 <ɾ>，其表現入聲促音色彩的作用是一致的。

關鍵詞：諺文，申叔舟，俗音，官話，藥韻，入聲

The *Chē-Zhē* Syllables of Old Mandarin*

Zhongwei Shen

University of Massachusetts Amherst

In identifying the phonology of Old Mandarin, one of the diagnostic features is the existence of finals *je* and *ɤɛ* as listed in the *chē-zhē* 車遮 rime group of the *Zhōngyuán yīnyùn*. These syllables are from two different historical sources: Division III syllables of the MC *má* rime and Division III and IV *rù* syllables from *Xián* 咸 and *Shān* 山 rime groups with **-p** or **-t** coda. The merger of these two types of syllables indicates: (1) the syllables from the *má* rime actually indicate **a** > **ɛ** / **j**_, a conditioned vowel raising after a palatal glide, and (2) the loss of **-p** and **-t** endings in the relevant syllables.

This article primarily uses the materials of ancient Altaic scripts to show that although the *Zhōngyuán yīnyùn* was the first rime book to make syllables of this type an independent rime group, the evidence for the existence of syllables of this type can be traced back earlier to the Liáo dynasty (916-1125) of the Khitans. Such a vowel system remained unchanged until the nineteenth century when a new final -*ɤ* became distinctive in the coda-less syllables, indicating a transformation from Old Mandarin to modern Mandarin.

Key words: Old Mandarin, *chē-zhē* rime group, Khitan Lesser Script, Jurchen Script, hP'ags-pa Script

1. Introduction

As one of the nineteen rime groups of the *Zhōngyuán yīnyùn* 中原音韻 (hereafter ZYYY) compiled by Zhōu Déqīng 周德清 in 1324, the rime group labeled with Chinese characters 車遮 *chē-zhē* is regarded as an innovative phonological characteristic of Chinese in its historical development (Wáng 1980:155). The phonetic values of syllables in the *chē-zhē* rime group indicate the existence of a new phonological system which is significantly different from Middle Chinese (hereafter MC) phonology as represented in the *Qièyùn* 切韻. There is no question that the existence of the *chē-zhē* rime group is an indicator of Mandarin phonology. But should the ZYYY be regarded as the earliest evidence for the existence of the sound change indicated by the *chē-zhē* rime

* I would like to thank the reviewers for their constructive comments and suggestions.

group? In an effort to answer this question, this article looks for earlier evidence in the ancient Altaic scripts before the time of the ZYYY.

2. Tracing the history of the *chē-zhē* syllables

Evidence presented in this section shows that this important innovative characteristic can be traced to a time prior to the ZYYY. The significance of tracing this phonological feature is to show that the formation of Mandarin phonology took place much earlier than the commonly accepted dating based on the ZYYY.

2.1 The ZYYY of the Yuán 元 dynasty (1271-1368)

In the ZYYY the content of the *chē-zhē* rime group comes basically from two types of syllables from Middle Chinese as represented by the *Qìyèùn*: (1) all the Division III syllables of the *má* 麻 rime and (2) all Division III and IV syllables from various *rù* rimes with **-t** or **-p** codas, namely *yè* 葉 *yè* 業 *tiě* 帖 *xuē* 薛 *yuè* 月 *xiè* 屑 (excluding the *hékǒu* syllables with labial initials, such as *fā* 發, *fā* 伐, *wà* 襪). These syllables are still pronounced with final **-jɛ** and **-ɥɛ** (**ɥœ**) in modern Mandarin except the ones with retroflex initials due to a subsequent change, **-jɛ** and **-ɥɛ** > **-ɣ** and **-wo**. Below are examples with the pronunciation of modern Běijīng dialect provided in parentheses.¹

-0	III	*-ja	>	-jɛ	<i>má</i> 麻: 借姐且些寫瀉卸邪斜謝夜 (-jɛ)
					<i>má</i> 麻: 遮者蔗車扯蛇射奢捨舍社 (-ɣ)
-p	III/IV	*-jVp	>	-jɛ	<i>yè</i> 葉: 聶獵接妾捷葉壓頁 (-jɛ)
					<i>yè</i> 業: 劫怯業脅 (-jɛ)
					<i>tiě</i> 帖: 跌帖碟協 (-jɛ)
					<i>yè</i> 葉: 摺攝涉 (-ɣ)
-t	III/IV	*-jVt	>	-jɛ	<i>xuē</i> 薛: 鼈別滅列薛傑孽拽 (-jɛ)
					<i>yuè</i> 月: 揭歇 (-jɛ)
					<i>xiè</i> 屑: 愍撇蔑鐵捏節切截屑結噎 (-jɛ)
					<i>xuē</i> 薛: 哲徹輟折舌設熱 (-ɣ)
		*-wjVt	>	-ɥɛ	<i>xuē</i> 薛: 劣絕雪悅 (-ɥɛ)
					<i>yuè</i> 月: 厥掘月噉越 (-ɥɛ)
					<i>xuē</i> 薛: 拙說 (-wo)

¹ These syllables are selected from the *Fāngyán diàochá zìbiǎo* 方言調查字表 (Chinese Academy of Social Sciences 1981/2005).

According to various proposals for MC reconstruction, the main vowels of **-(w)jVp/t** syllables are front mid vowels. In the following discussion the syllables found in the *chē-zhē* rime groups will be referred to as *chē-zhē* syllables. The existence of *chē-zhē* syllables is a basic phonological characteristic of Northern Mandarin, the emergence indicating a new vowel system that is fundamentally different from that of the *Qièyùn*. The changes from MC to the ZYYY listed above can be summarized as:

-ja > **-jɛ**
-jɛt/p > **-jɛ**, **-wjɛt/p** > **-ɥɛ**

A few syllables in the *chē-zhē* rime group have dual pronunciations. MC Division IV syllable *xiá* 俠 is also listed in the *jiā-má* rime group along with its Division II counterparts, and MC Division II syllables *kè* 客, *é* 額 and *hè* 赫 from the *mò* 陌 rime with a **-k** coda are found in the *jiē-lái* rime group as regular reflexes of MC syllables with **-k** coda.

-t	IV	俠	<i>jiā-má</i>	家麻	-ja
-k	II	客	<i>jiē-lái</i>	皆來	-jaɟ
-k	II	額	<i>jiē-lái</i>	皆來	-jaɟ
-k	II	赫	<i>jiē-lái</i>	皆來	-jaɟ

The pronunciation of modern Běijīng dialect *xiá* 俠 shows the reflex of the *jiā-má* final, but the pronunciation of *kè* 客, *é* 額 and *hè* 赫 cannot be explained based on sound changes. Thus they must form a different dialect through language contact.

2.2 The *Ménggǔ zìyùn* 蒙古字韻 of the Yuán dynasty

In the early Yuán dynasty the ḥP'ags-pa script was invented. The ḥP'ags-pa spellings for Chinese syllables can be seen in the *Ménggǔ zìyùn* (hereafter *MGZY*), where all the *chē-zhē* syllables are in the *má* 麻 rime group (Junast & Yáng 1987). The spelling forms unquestionably show that these syllables are pronounced as **-jɛ** or **-ɥɛ**. All relevant syllables are listed below. The ḥP'ags-pa spellings do not reflect Chinese tones. In order to show the different historical sources of the syllables, syllables from MC *má* rime and MC *rù* syllables are both listed under the same spellings. Of the two characters, the first one is from the *má* rime and the second one is a *rù* syllable. If only one syllable is listed, it is a *rù* syllable.

	k-	kh-	t-	th-	n-	tʂ-	tʂh-	p-	ph-	m-	ts-
ɛ	結	挈	窒 ²	鐵	涅	遮哲	車撤	彌 ³	瞥	乜蔑	嗟節
	tsh-	s-	ʃ-	h-	fi-	j-	0-	ŋ-	l-	ɬ-	
	且切	些屑	奢攝	脅	纈	謁	噎	齧	列	惹熱	
wɛ	k-	kh-	t-	th-	ts-	dz-	s-	z-	ʃ-	ʒ-	h-
	块	闕	輟	歎	絕	絕	雪	蜥	說	啜 ⁴	血
	fi-	0-	j-	j-	l-	ɬ-					
	穴	扶 ⁵	月	悅	劣	蕪					
e	k-	kh-	g-	ŋ-	d-	dz-	b-	dz-	z-	ʒ-	h-
	迦訖	呿竭	伽竭	鑑	姪	蛇舌	蹇	藉截	衰	闕折	歇
	j-										
	邪拙										
we	k-	kh-	g-	h-							
	厥	闕	癘齧	(颶) ⁶							

In the *MGZY* the final parts of these syllables have four different spellings. However, **ɛ**, **wɛ**, **e** and **we** represent only two finals, **-jɛ** or **-ɥɛ**, and **ɛ** and **e** actually indicate the same phonetic value for the finals (Shen 2008a).

The relevant syllables listed in the *ZYYY* are from the same historical sources as the *MGZY*. Although these syllables are not separated as an independent rime group, their phonetic values are the same as indicated by the *chē-zhē* rime. Since the *MGZY* was compiled at the beginning of the Yuán dynasty, its phonological system represents a Jīn 金 dynasty standard from the twelfth or thirteenth century.

2.3 Jurchen and Chinese materials of the Jīn dynasty (1115-1234)

The Jurchens of the Jīn dynasty invented two scripts for their language. However, so far all the available materials indicate only one writing system, a logographic one like Chinese (Jīn & Jīn 1980). Because of the nature of the Jurchen script and very limited number of examples (Shen 2012), only one example can be used and this must first be explained. A stone tomb tablet was discovered in Shūlán 舒蘭, Jílín 吉林

² In the *Guāngyùn* 廣韻, the character 窒 has two *fǎnqiè* 反切, 涉栗切 and 丁結切. This spelling reflects the latter.

³ The correct character is 彌 (方結切). In the *MGZY* it is mistakenly replaced with 彌 (武移切).

⁴ The *fǎnqiè* is 啜, 昌悅切. In the *MGZY* its initial is the *chán* 禪 initial.

⁵ The character *jué* 抉 has two *fǎnqiè* in the *Guāngyùn*, 古穴切 and 於決切, here is the latter.

⁶ In the *MGZY* no character is listed under this spelling 𩇛. *Xuè* 颶 is tentatively added according to its *fǎnqiè* 許月切.

Province in 1979 (Jílín shěng wénwùzhì biānwěihuì 1985). According to the Chinese text the tomb owner died in the sixteenth year of the Dàdìng reign 大定十六年 of the Jīn dynasty (1176). The most valuable information is the official title of the tomb owner, which was provided in both Chinese and Jurchen characters. The long Chinese title is *Zhāoyǒng dàjiāngjūn tóngzhī xióngzhōu yǒngdìngjūn jiédùshǐ* 昭勇大將軍同知雄州永定軍節度使 ‘Zhāoyǒng Grand General, Associate Administrator of Xióngzhōu and Military Commissioner of Yǒngdìng’. Of this title the character *jié* 節 (*-jVt, a *rù* syllable historically) of *Jiédùshǐ* 節度使 is worth noting because it is a *chē-zhē* syllable. The Jurchen character used to transcribe this Chinese syllable was identified as 𐰇, having a phonetic value of *o*; however this must be a mistake because the phonetic value of *jié* 節 has nothing to do with *o*. The Jurchen character in question should be a graphic variant of the Jurchen character 𐰇, which is transcribed by Chinese characters *chē* 車 and *jié* 截 in the *Nǚzhēn yìyǔ* 女真譯語. Both *chē* 車 and *jié* 截 are *chē-zhē* syllables in the ZYYY. So, the pronunciation of is -jɛ.

The existence of *chē-zhē* syllables can be confirmed with rhyming evidence in the *Zhūgōngdiào* 諸宮調 written in the Jīn dynasty. A fragmented copy of *Liú Zhīyuǎn zhūgōngdiào* 劉知遠諸宮調 ‘The [chantefable] “in all keys and modes” on Liú Zhīyuǎn’ was unearthed in Zhāngyè 張掖, Gānsù 甘肅 Province in 1907 (Zhèng 1958). Of twelve volumes, only portions of five still survive. Based on paper, ink, and character carvings, it can be identified as a copy printed in the Píngshuǐ 平水 area during the Jīn dynasty. In this copy, four sections involve *chē-zhē* syllables (Liào 1964, Xú 1997). In the examples below *chē-zhē* syllables from the MC *má*-III rime are highlighted.

Volume 1	夜舍野決也節月蝶接歇	(歇指調 枕畔兒)
Volume 1	結頰些悅捨驚劣絕說厥滅也	(黃鍾宮 快活年)
Volume 2	貼月劣也頰缺傑捷悅徹迭捨截	(中呂調 牧羊關)
Volume 12	歇熱驚烈者說也折/怯拽也	(般涉調 蘇幕遮)
-0	<i>má</i> -III 麻三	夜舍野也些捨者
-t	<i>xuē</i> 薛, <i>yuè</i> 月, <i>xiè</i> 屑	決節月歇結悅劣絕說厥滅疊截熱烈折拽
-p	<i>yè</i> 業, <i>yè</i> 葉, <i>tiē</i> 帖	蝶接頰怯

These syllables are from MC *má*-III rime and *rù* syllables from Divisions III and IV with -p and -t codas only. No syllables from other MC rimes are included. This is a strong confirmation of the existence of the *chē-zhē* syllables. This phonological characteristic probably was a common feature of the standard pronunciation of a wider geographic area, which also included the territory of the Southern Sòng 宋 (1127-1279). In the entry for the character *gōng* 公 in the *Gǔjīn yùnhuì jǔyào* 古今韻會舉要 (Ning 2000) a

notation by Máo Huǎng 毛晃, the author of *Zēngxiū hùzhù lǐbù yùnlüè* 增修互注禮部韻略, was quoted, saying, “There are cases where one rime should be analyzed into two. For example, *má* 麻 and *mǎ* 馬 belong to one rime and *shē* 奢, *xiě* 寫 and *jiè* 藉 should be a separate rime. According to the standard pronunciation of Central Plain, (they are) completely different.”⁷ Máo Huǎng lived in the Shàoxīng 紹興 reign (1131-1162) of the Southern Sòng, therefore his comments should reflect the contemporary pronunciation of the twelfth century.

2.4 Khitan materials of the Liáo dynasty

The existence of *chē-zhē* syllables can be further traced to the Liáo 遼 dynasty (916-1125), when two Khitan scripts were invented. One of them is the phonetic Khitan Lesser Script, in the materials of which a few transcriptions provide evidence for the existence of *chē-zhē* syllables. These include the long official titles of the composer Yēlǔ Gù 耶律固 in two epitaphs written in this script, the *Huáng tàishūzǔ āicè* 皇太叔祖哀冊 ‘Elegy for the Imperial Grand Uncle (Yēlǔ Hóngběn 耶律弘本)’ and *Sòng-Wèi guófēi mùzhì míng* 宋魏國妃墓誌銘 ‘Epitaph for Sòng-Wèi Guófēi (Yēlǔ Hóngběn’s wife)’. Both are dated 1110.⁸ The syllables *yè* 射 and *jié* 節 in the official titles *Yòu púyè* 右僕射 ‘Right Vice Director’ and *Shǐ chíjié* 使持節 ‘Commissioned with Extraordinary Power’ are *chē-zhē* syllables.

In the Khitan script *yè* 射 of *púyè* 僕射 is spelled with *yuánzì* 原字 (YZ) 𐰺 and 𐰽, which are also used to transcribe other Chinese syllables in the Khitan materials.⁹ The examples included in this paper provide six pieces of information: (1) the Chinese character in question, (2) the Khitan letters, (3) the phonetic reconstruction of the Khitan letters,¹⁰ (4) the Chinese word containing the character in question, (5) six characters representing the MC phonological categories, and (6) the abbreviation of the Khitan materials. (A list of abbreviations used is provided at the end of this paper.)

⁷ His original quotation reads, 亦有一韻當析爲二韻者, 如“麻, 馬”是一韻, “奢, 寫, 藉”當別爲一韻, 以中原雅音求之, 迥然不同矣。

⁸ A complete list of the Khitan epitaphs and their sources is provided at the end of this paper.

⁹ The *yuánzì* 原字 ‘basic graph’ is the smallest spelling unit in the Khitan Lesser Script. The index number of the graph is based on Shen (2007).

¹⁰ For the reconstructed phonetic value of the Khitan YZ please refer to Shen (2007).

射 ¹¹	𠂔文	j.ɛ	右僕射	假開三去禡以	SZ
射	𠂔文	j.ɛ	右僕射	假開三去禡以	GF

YZ 𠂔 transcribes initial j- or coda -j, and YZ 𠂔 transcribes vowel ɛ.

楊	𠂔𠂔	j.aŋ	楊從越	宕開三平陽以	RX
右	𠂔𠂔𠂔	j.əw.u	右僕射	流開三去宥云	SZ
開	𠂔𠂔	kha.j	開國公	蟹開一平哈溪	TL
勒	𠂔𠂔	l.(ə)j	彌勒女	曾開一入德來	WN
監	𠂔文 𠂔	k.ɛ.ɛm	右監門衛	咸開二平銜見	HS
延	𠂔文 𠂔	j.ɛ.ɛn	延慶宮	山開三平仙以	NZ

So the phonetic value of 射 is clearly jɛ.

In the fragments of the *Hăitángshān Qidān Xiǎozì Mùzhì Cánshí* (HT) 海棠山契丹小字墓誌殘石 ‘Epitaph found in Hăitángshān in Khitan Script (fragments)’ three personal names are listed in a row. The given names are all *jiānú* 家奴 and three surnames are Chén 陳, Xiè 謝 and Hán 韓.¹²

謝	𠂔文	s.ɛ	謝家奴	假開三去禡邪	HT
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Xiè 謝 is a syllable of the *má*-III rime and the spelling indicates its main vowel is a front mid vowel ɛ. The medial -j- of jɛ is not transcribed in Khitan. This is why *yè* 射 must be transcribed with an additional j- initial.

The Chinese character *jié* 節 is found in the titles *Shǐ Chíjié* 使持節 ‘Commissioned with Extraordinary Power’ and *Jiédù Shǐ* 節度使 ‘Military Commissioner’.

節	𠂔文	ts.ɛ	使持節	山開四入屑精	GF
節	𠂔文	ts.ɛ	使持節	山開四入屑精	SZ

¹¹ The character 射 has multiple pronunciations according to the *Guǎngyùn*. Its initial can be either *yí* 以 j- or *chuán* 船 z-, and its rime (*yùn* 韻) can be either *má*-III -ia or *xí* 昔 -iek. So it has four *fǎnqiè* spellings: 羊謝切, 神夜切, 羊益切, 食亦切, and their reconstructed values are -jia, -ia, -jiek, -iek respectively. But according to the meaning, character 射 in the official title 右僕射 is -jia belonging to the *má*-III rime. In the *Guǎngyùn* the homophonic group of 夜 has three homophonic words 夜, 射, and 鶴. The gloss for 射 is simply 僕射. So 羊謝切 -jia is special pronunciation for this official title.

¹² The character *xiè* 謝 was deciphered as *jié* 節 in Liú (1993). *Jié* 節 is usually transcribed by YZ 𠂔 representing ts (see the examples for 節). So *xiè* 謝 is much more likely to be the Chinese surname transcribed because the phonetic value of YZ 𠂔 for initial is s-. Also *Xiè* 謝 is a popular surname.

節	𠂔 文	ts.ɛ	節度使	山開四入屑精	TL
節	𠂔 文	ts.ɛ	節度使	山開四入屑精	XW

All the *chē-zhē* syllables are transcribed by the same graph, YZ 𠂔, indicating that the MC *má*-III syllables and *rù* syllables with **-p** and **-t** codas have the same final. This phenomenon further indicates the raise of the main vowel of *má*-III syllables and the loss of the syllables with **-p** and **-t** coda.

There are also two *hékǒu* syllables from the MC *yuè* 月 rime which belong to the *chē-zhē* rime of the ZYYY.

越	𠂔	œ	楊從越	山合三入月云	RX
月	𠂔	œ	臘月	山合三入月疑	RX

YZ 𠂔 and 𠂔 are graphically very similar. The difference is that YZ 𠂔 has an extra dot. YZ 𠂔 also can appear in the spellings of other syllables.

宣	𠂔 𠂔 𠂔	s.œ.œn	宣武大將軍	山合三平仙心	BZ
遠	𠂔 𠂔	œ.ɛn	寧遠大將軍	山合三上阮云	BZ

In the MC system *xuān* 宣 is the *hékǒu* counterpart of *xiān* 仙 and *yán* 延 in the examples below. Thus, YZ 𠂔 represents a rounded counterpart of the vowel *ɛ* represented by YZ 𠂔.

仙	𠂔 𠂔 𠂔	s.ɛ.ɛn	仙游殿	山開三平仙心	DZ
延	𠂔 𠂔 𠂔	j.ɛ.ɛn	延慶宮	山開三平仙以	NZ

These few syllables unambiguously reveal that this northern Mandarin feature was in existence as early as the eleventh century.

It should be noted that the transcription of *yuè* 月 ‘moon’ indicates the loss of the velar nasal initial because in the MC system *yuè* 月 is a syllable with initial **ŋ-**. The character *yuè* 月 is transcribed by YZ 𠂔, which is used along with its variation YZ 𠂔 to transcribe *yuè* 越, a syllable with zero initial. This may be one of the earliest examples of the loss of the velar nasal initial in the history of Mandarin. However, it is a little peculiar that the loss of velar nasal initial occurs only in one word. The velar nasal initial is very well maintained in all the syllables with MC initial **ŋ-**.

吾	𠂔 𠂔	ŋ.u	金吾衛	遇合一平模疑	DS
儀	𠂔 𠂔	ŋ.i	儀同三司	止開三平支疑	HY

魏	𠂔 火 关	ŋ.uj.i	宋魏國王	止合三去未疑	HY
禦	𠂔 火	ŋ.y	防禦使	遇合三去御疑	SZ
牛	𠂔 丙	ŋ.iw	千牛衛將軍	流開三平尤疑	HY
銀	𠂔 兩	ŋ.in	銀青崇祿大夫	臻開三平真疑	GF
元	𠂔 焚 方	ŋ.œ.ɛn	副元帥	山合三平元疑	RX
堯	𠂔 号	ŋ.ɛw	堯舜	效開四平蕭疑	ZX

Thus the loss of the velar nasal initial **ŋ-** in *yuè* 月 is an exception, likely due to the fact that it is not in the same layer as the Chinese loans listed above. This word was borrowed directly or indirectly into the Khitan language earlier. In all the examples *yuè* 月 is used for dating and often preceded with a Khitan numeral word. The character *yuè* 月 also appears twice in the compound *làyuè* 臘月 ‘the twelfth lunar month’.

月	𠂔	œ	臘月	山合三入月疑	HS
月	𠂔	œ	臘月	山合三入月疑	RX

A possible explanation for this exception is that this is an early loan word which has been “Khitanized”. While the velar nasal initial had been lost in this early loan word, it is still maintained in contemporary Chinese. In the *Xiāotèměi kuògē Fūrén Hánshì Mùzhì míng* 蕭特每闊哥夫人韓氏墓誌銘 ‘*Epitaph for the Wife of Xiāotèměi kuògē, HánShì*’, the term *làyuè* is transcribed as **l.a.p** (YZ 𠂔 力 𠂔), which is a Khitanized syllable as well; that it is Khitanized is indicated by the fact that all Chinese *rù* syllables have lost their consonant codas.

3. The *chē-zhē* syllables and their phonological context

The existence of *chē-zhē* syllables indicates the emergence of a new final system that is characteristically Mandarin. As mentioned above, the *chē-zhē* syllables have two historical sources: Division III syllables of the MC *má* rime and Division III and IV syllables from various *rù* rimes with **-t** or **-p** codas. These two changes reveal different structural information, and as they are quite different in nature they will be discussed separately below.

3.1 *Má*-III syllables

For the vowel raising, **-ja** > **-jɛ**, of *má*-III syllables to occur, two phonological conditions must be in existence: (a) there must be no **-jɛ** in the system that would block or merge with *má*-II syllables, and (b) none of the MC *má*-II syllables with velar initials,

e.g. *jiā* 家, *jiā* 加, *xià* 下 and *yá* 牙, may have developed a palatal medial. Otherwise the *má*-II and *má*-III syllables would merge together and under the same conditions, they would exhibit the same vowel-raising as *má*-III syllables.

The syllables that could block vowel raising in *má*-III syllables are rimes from the MC Division III syllables of *zhǐ* 止 and *xiè* 蟹 rime groups, according to the rime table classification. In the Khitan materials, no syllables from these two rime groups still have mid front vowels. MC *zhǐ* rime group has four rimes (not counting the tonal differences), *zhī* 支, *zhī* 脂, *zhī* 之 and *wēi* 微, all belonging to Division III. Their reconstructed phonetic values are **jɛ**, **i**, **i**, and **wii** respectively. The main vowel of all these syllables appears as *i* or *ɨ*. There is no indication that the main vowel is a front mid vowel *e*.

支 -**jɛ** and 之 -**i** > -**i**

騎	𠬞 𠬞	k.i.i	驃騎大將軍	止開三平支群	ZG
儀	𠬞 𠬞	ŋ.i	儀同三司	止開三平支疑	ZG
使	𠬞 𠬞	ʃ.i	瀋州度使	止開三上止生	DL
期	𠬞 𠬞	kh.i	黃應期	止開三平之群	LJ

Other possible sources of main vowel *ɛ* are Division III and Division IV syllables from the *xiè* rime group. Below are some examples. The word *jì* 祭 is a Division III syllable, and *lǐ* 禮 and *qí* 齊 are Division IV syllables of the *xiè* rime group. The MC reconstructions are -**jɛj** and -**ɛj** respectively. In the Khitan script both are spelled with Khitan YZ 𠬞 with a phonetic value of -**i**.

祭 -**jɛj** and 齊 -**ɛj** > -**i**

祭	𠬞 𠬞	ts.i	國子祭酒	蟹開三去祭精	DZ
禮	𠬞 𠬞	l.i	禮賓使	蟹開四上齊來	GF
齊	𠬞 𠬞	s.i	齊國大王	蟹開四平齊從	HS
西	𠬞 𠬞	s.i	留西督軍	蟹開四平齊心	RX
帝	𠬞 𠬞 𠬞	th.i.i	興宗皇帝	蟹開四去霽端	HY

The changes undergone by these syllables yield a phonological space for the rise of main vowel of the *má*-III syllables.

The phonetic value of *jì* 祭 is **tsi**, which also indicates that MC syllables of this type have changed, and the phonological position **tsi** has become available for the change of *jì* 祭 **tsjɛj** > **tsi**. Khitan materials also provide evidence that syllables of the MC *zhǐ* 止 rime group with alveolar affricates and fricatives have finished the vowel centralization of *i* > *ɨ* (Shen 2007). Below are some examples.

子	傘 咨	ts.i	開國子	止開三上止精	GF
刺	𪛗	si	瀋州刺史	止開三去寘清	XZ
司	𪛗	si	部署司	止開三平之心	GF

The Khitan spellings for 祭 and 子 manifest a clear contrast. The phonetic values of YZ 𪛗 and YZ 咨 should be *i* and *i* respectively. YZ 𪛗 transcribes syllable *si* (Sino-Khitan phonology does not distinguish alveolar fricative and aspirated affricate, *s* and *tsh*). This vowel centralization may also be observed in syllables with retroflex initials, as shown below. In these two transcriptions YZ 𪛗 *ʃi* is used. The use of YZ 咨 instead of YZ 𪛗 also indicates centralization of the high front vowel *i*.

使	𪛗 咨	ʃi.i	使持節	止開三上止生	GF
史	𪛗	ʃi	瀋州刺史	止開三上止生	XZ

The vowel raising of *má*-III syllables also indicates that the medial of *má*-II syllables is distinct from the medial of *má*-III syllables. As *má*-III syllables experienced vowel raising from *a* to *ɛ* after medial *-j-*, the *má*-II syllables must have had a different medial; otherwise they should have undergone the same vowel raising. Hence the most sensible explanation is that *má*-II syllables had a different medial.

It has been proposed that MC Division II syllables had a medial *-ɥ-* (or *-y-*) which developed from an earlier *-r-* (Zhèngzhāng 2003). In modern Běijīng Mandarin, this medial is a palatal medial after guttural initials; this change occurred in the thirteenth century. In the *hP*'ags-pa spellings of the *MGZY*, MC Division II syllables with guttural initials had developed a palatal medial. But the same phenomenon cannot be observed in the Khitan materials. Below are the two syllables of MC *má*-II rime.

家	𪛗 𪛗	k.ya	韓家奴	假開二平麻見	RX
家	𪛗 𪛗	k.ya	陳家奴	假開二平麻見	HT
下	𪛗 𪛗	x(a).ya	中書門下	假開二上馬匣	DL
下	𪛗 𪛗	x(a).ya	中書門下	假開二上馬匣	GF

The finals of both syllables are transcribed by Khitan YZ 𪛗. It is obvious that the phonetic interpretation of YZ 𪛗 is crucial. Khitan scholars are all in agreement that the phonetic value is *ja* (Chingeltai, Liú et al 1985, Chingeltai 2002, Kane 2009), however their reasoning is problematic, because the suggested phonetic value is based on the *ZYYY* or modern Běijīng Mandarin. However, the phonetic value of *ia* for YZ 𪛗 cannot explain what is seen in the Khitan language. YZ 𪛗 is frequently used in the Khitan language and means 'elder brother'. In modern Altaic Languages Mongolian and Dagur,

which are probably related to the Khitan Language, the words for ‘elder brother’ are *aqā* and *ax* respectively (Dob 1982, Zhòng 1982). These two cognates show that (a) there is a vowel **a**, (b) there is a guttural fricative, and (c) there is no palatal sound. YZ 𐰺 is also used as the first graph in the spelling of a common Khitan word which corresponds semantically to the Chinese word *fú* 福 ‘lucky’. In the *Liáoshǐ* 遼史 this word is phonetically transcribed with Chinese characters *húdǔ* 胡篤 (*húdǔ* 胡覩, *hútū* 鶻突). In MC both *hú* 胡 and *hú* 鶻 are syllables with voiced guttural fricative initials, and have nothing to do with palatal sounds **i** or **j**. Thus the phonetic value of YZ 𐰺 can be reconstructed as **(a)ḥa** or **(a)ya**. The fact that the phonetic value of YZ 𐰺 is not **-ja** but **-(a)ya** indicates that the *má*-II syllables *jiā* 家 and *xià* 下 had not developed a palatal medial yet. In the Liáo dynasty the phonetic value of *má*-II was **-ya** (**-uḡa**) and *má*-III was already **-jɛ**.

	MC	Khitan	MGZY	ZYYY
<i>má</i> -II	uḡa	uḡa	ja	ja
<i>má</i> -III	ja	jɛ	jɛ	jɛ

Thus the medial of the MC *má*-II syllables with guttural initials had not yet developed as a palatal. This phonological feature can also be discerned from the Chinese transcription of a Khitan official title *limya*, which refers to an official in charge of the academy, more formally known as *xuéshì* 學士 or *hànlín* 翰林. The alternative transcriptions for the Khitan word *lim(y)a*, spelled as **L.ɛm.a** or **L.ɛm.hu.a** (Kane 2009:104) are *lín yá* 林牙 and *lín má* 林麻. Both Chinese characters are *má*-II syllables. Since *má*-II syllables with labial initials did not develop a palatal medial, historically the phonetic value of *má* 麻 should be either **ma** or **mya**. The phonetic value of *yá* 牙 must therefore be **ya** instead of **ja**. If 牙 was **ja**, the two Chinese transcriptions *lín yá* 林牙 and *lín má* 林麻 would be quite different; they would be **lim.ja** and **lim.ma** respectively. Based on other, unrelated evidence, Wú & Janhunen (2010:79) also suggest that the Khitan word was *limya* originally.

In the Khitan materials, MC Division II syllables with guttural initials show that the development of the palatal medial was in progress. *Má*-II syllables like *jiā* 家 and *xià* 下 had not been affected by the change, but other Division II syllables had already developed palatal medials. For example,

校	𐰺 𐰽	k.ɛw	檢校	效開二去效見	HS
校	𐰺 𐰽	k.ɛw	檢校	效開二去效見	SZ

YZ 𐰺 is also used in spelling MC Division III and Division IV syllables as in the examples below.

驃	𠂔𠂔	p.ɛw	驃騎大將軍	效開三去效並	ZG
小	𠂔𠂔	s.ɛw	小將軍	效開三上小心	ZX
朝	𠂔𠂔	tʃ.ɛw	朝散大夫	效開三平宵知	DS
堯	𠂔𠂔	ŋ.ɛw	堯舜	效開四平蕭疑	ZX

Clearly the final of Division II syllable *jiào* 校 is the same as the final of Division III syllables *piào* 驃, *xiǎo* 小 and *zhāo* 朝, indicating that Division II syllable *jiào* 校 had developed a palatal medial and become the same as Division III syllables.

The several inter-related changes discussed above actually indicate a chain of vowel raising, as set forth here:

	-ja	>	-jɛ-	>	-i	>	-i
MC	麻 _三		止 _三 蟹 _{三四}		止 _三		
Liáo			麻 _三		止 _三 蟹 _{三四}		止 _三

The emergence of *chē-zhē* syllables likewise points to a significant vowel shift in syllables without consonant codas.

	<i>MC</i>		<i>Liáo</i>		<i>MC > Liáo</i>
i	止		蟹 _{三四} 止	止精組聲母	i → i
					↑
ɛ	蟹 _{三四} 止		麻 _三		ɛ
					↑
a	麻 _{二三}		麻 _二		a

In the Liáo dynasty the vowel system was already very similar to that of modern Mandarin.

3.2 *Rù* syllables

The sound changes of MC *rù* syllables are rather straightforward. *Chē-zhē* syllables from MC *rù* syllables with **-p** and **-t** coda simply lost their codas, and the main vowels remained unchanged. In the Khitan materials, the spellings of their counterparts with nasal codas, that is, the *yáng* 陽 syllables, indicate the same main vowel. The syllable *jié* 節 is a Division IV syllable, and its main vowel is transcribed by Khitan YZ 文. The main vowel of Division IV syllables with a nasal coda is also transcribed by YZ 文.

節	全 文	ts.ɛ	使持節	山開四入屑精	GF
殿	今 文 方	th.ɛ.ɛn	殿中侍禦	山開四去霰定	SZ
前	全 文 方	s.ɛ.ɛn	前鋒	山開四平先從	RX
練	今 文 方	l.ɛ.ɛn	團練使	山開四去霰來	GF
千	全 文 方	s.ɛ.ɛn	千牛衛將軍	山開四平先清	HY

Thus the change undergone by the *rù* syllables is the loss of coda **-t** or **-p**, but the main vowel was unchanged. The changes of both *má*-III syllables and the *rù* syllables occurred in the Liáo dynasty, leaving us with no clue as to the order to these two changes in the northern Mandarin of Liáo territory.

4. The vowel system of Early Mandarin and its development

The emergence of the *chē-zhē* rime indicates two important changes in the final system, affecting both the main vowels and the codas. The resulting new final system is very “Mandarin” looking. Its vowel system has seven main vowels. These vowels are usually represented by commonly used Khitan YZ as listed below.¹³

<i>Khitan YZ</i>	<i>Phonetic value</i>
𐰇, 𐰆 𐰇 𐰆	i, y i u
𐰇 𐰆	ɛ o
𐰇	a

This system is very much the same as that found in the *MGZY* spellings. The vowels of four rime groups with monophthongs, namely *zhī* 支, *yú* 魚, *má* 麻 and *gē* 歌, contain the following spellings.

<i>MGZY rime group</i>	<i>hP’ags-pa spelling</i>	<i>Phonetic value</i>
支, 魚 支 魚	𐰇, 𐰇 𐰇 𐰇	i, y i u
麻 歌	𐰇, 𐰇	ɛ o
麻	()	a

In the *hP’ags-pa* spelling, the vowel **a** is a default and is not represented by a letter. Letters 𐰇 and 𐰇 are the modifications of vocalic letters including the default **a**. Letters 𐰇, 𐰇 are in complementary distribution representing one phoneme /e/. The *hP’ags-pa* spellings unambiguously indicate a seven-vowel system.

¹³ Other YZ graphs may also be used to transcribe vowels, but they do not indicate any additional vocalic contrast in terms of vowel quality and thus are not discussed here.

In the *ZYYY* the monophthong vowels are in rime groups *qí-wēi* 齊微, *zhī-sī* 支思, *yú-mú* 魚模, *chē-zhē* 車遮, *jiā-má* 家麻 and *gē-gē* 歌戈. When we compare the *ZYYY* with the *MGZY*, we find that the *zhī* 支 rime group of the *MGZY* is divided into the *qíwēi* and *zhīsī* rime groups of the *ZYYY*, and the *má* rime group is divided into the *chēzhē* and *jiāmá* 家麻 rime groups of the *ZYYY*. The *yú* 魚 and *gē* 歌 rime groups of the *MGZY* are equivalent to the *yúmú* 魚模 and *gēgē* 歌戈 rime groups of the *ZYYY*. All the finals are already in existence in the *MGZY*, and thus the divisions seen in the *ZYYY* do not show any new finals in the system.

<i>MGZY</i>		<i>ZYYY</i>		<i>Phonetic value</i>
支	支	齊微	支思	i i u, y
麻	魚	車遮	歌戈	ε o
	麻		家麻	a

In modern Mandarin the content of *chē-zhē* syllables has evolved, mainly due to two subsequent changes: (1) dissimilation of **-jVj** type of syllables, which created more *chē-zhē*-type syllables, and (2) vowel backing caused by retroflex initials, which resulted in the emergence of final **-ɣ** (Shen 2008b).

4.1 Dissimilation of **-jaj**, **-jaj** > **-jε**

This change can be found in the Yù Ēn's 裕恩 *Yīnyùn féngyuán* 音韻逢源 of 1840. The final of characters *jiē* 皆, *jiě* 解, *jiè* 戒, *xié* 諧 etc. has changed to **-jε**. But many still have dual pronunciations of **-jaj** and **-jε** (Gěng 1992:177). This change had been completed close to the end of the nineteenth century. The 1898 *Guānhuà cuìzhēn* 官話萃珍 by Chauncey Goodrich (Fù Shàn 富善) shows that the change of **-jaj** > **-jε** was complete (Gěng 1992:179).

4.2 The emergence of final **-ɣ**

In modern Běijīng Mandarin dialect the *chē-zhē* syllables show a change conditioned by the retroflex initials, **-jε** > **ɣ**/ **C** [+retroflex] **_**. As a result, syllables like *zhě* 者, *shé* 蛇, *shè* 社 and *shě* 舍, including the labels of the *chē-zhē* rime group *chē* 車 and *zhē* 遮, are pronounced with final **-ɣ**, which is a distinctive main vowel in the system. Besides *chē-zhē* syllables, modern Běijīng dialect also includes syllables from additional sources. Below is a list of the historical sources of final **-ɣ**.

MC shū (non-rù) syllables are from:

- (a) the MC Division III syllables of the *má* 麻 rime group. *zhě* 者, *shé* 蛇, *shè* 社, and *shè* 舍 are from the *má* 麻 rime of Division III.
- (b) MC Division I syllables of the *guǒ* 果 rime group. *gē* 歌, *é* 鵝, *hé* 何, except *wǒ* 我, are from the *gē* 歌 rime of Division I.

MC rù syllables are from:

- (c) MC Divisions I and III *rù* syllables from the *zēng* 曾 rime group. *zé* 則, *sè* 塞 from the *dé* 德 rime of Division I and *cè* 側, *cè* 測, *sè* 色 from the *zhí* 職 rime of Division III,
- (d) MC division II *rù* syllables from the *gěng* 梗 rime group. *zé* 澤, *cè* 冊 from the *mò* 陌 and *mài* 麥 rimes of Division II.
- (e) MC Division III *rù* syllables from the *qīn* 侵 rime group. *zhé* 蟄, *sè* 澀 from the *jī* 緝 rime of Division III.
- (f) MC Division III *rù* syllables from the *zhēn* 臻 rime group. *sè* 瑟 from the *zhì* (質) 質(櫛) rime of Division III.
- (g) MC Division I *rù* syllables from the *xián* 咸, and *shān* 山 rime groups. *hé* 合 from the *hé* 合 rime and *hē* 喝 from the *hé* 曷 rime respectively.
- (h) MC Division I *rù* syllables from the *dàng* 宕 rime group. *è* 惡 from the *duó* 鐸 rime.

Apart from the *chē-zhē* syllables, all non-*rù* syllables belong to the *gē* rime group of the *MGZY* and the *gē-gē* rime group of the *ZYYY*, both of which have rounded vowels. The *rù* syllables are found in the *zhī* and *jiā* rime groups of the *MGZY* and the *zhī-sī* and *jiē-lái* rime groups of the *ZYYY*.

	<i>MC</i>			<i>MGZY</i>		<i>ZYYY</i>		<i>Běijīng</i>
	<i>Rime</i>			<i>RG</i>		<i>RG</i>		
(a) 車	<i>má-III</i>	ja	<i>má</i>	jɛ	<i>chē-zhē</i>	jɛ		ɣ
(b) 歌	<i>gē</i>	a	<i>gē</i>	o	<i>gē-gē</i>	o		ɣ
(g) 合	<i>hé</i>	əp	<i>gē</i>	o	<i>gē-gē</i>	o		ɣ
(g) 喝	<i>hē</i>	at	<i>gē</i>	o	<i>gē-gē</i>	o		ɣ
(h) 惡	<i>duó</i>	ak	<i>xiāo</i>	aw	<i>xiāo-háo</i>	aw/o		ɣ
(c) 則	<i>dé</i>	ək	<i>jiā</i>	əj	<i>jiē-lái</i>	aj		ɣ
(d) 澤	<i>mò</i>	ʊak	<i>jiā</i>	aj	<i>jiē-lái</i>	aj		ɣ
(e) 澀	<i>jī</i>	ip	<i>zhī</i>	i	<i>zhī-sī</i>	i		ɣ
(f) 瑟	<i>zhì</i>	it	<i>zhī</i>	i	<i>zhī-sī</i>	i		ɣ

It is likely that this new vowel was introduced through internal changes as well as contact with other Mandarin subdialects. The internal changes can be explained by phonological conditions, $j\epsilon > \mathfrak{x}$ / C [+retroflex] _ (a), and $o > \mathfrak{x}$ / C [+guttural] _ (b). But other changes, namely (c), (d), and (h), are clearly not phonologically motivated. The MC *rù* syllables from the *zēng* 曾 and *gěng* 梗 rime groups, (c) and (d), still have two types of reflexes in modern Běijīng dialect, $-\mathbf{Vj}$ and $-\mathfrak{x}(\mathfrak{a})$. The \mathbf{Vj} form is the only one found in the Liáo, Jīn and early Yuán materials. The \mathfrak{x} final of the MC *rù* syllables was very possibly introduced from southern Mandarin dialects, which have the *rù* tone and vowel \mathfrak{x} . The \mathfrak{x} pronunciation of MC Division I *rù* syllables from the *dàng* 宕 rime group (h) is the result of external influence and internal change. The final *o* of the *dàng* rime group was introduced through contact, and is first indicated by the dual pronunciation in the ZYYY. Subsequently it became \mathfrak{x} under the same condition as the other syllables with final *o*.

i, y	i	u
ε		ɤ, o
	a	

The *Yīnyùn fēngyuán* is one of the earliest records attesting the existence of final $-\mathfrak{x}$. In this work some *chē-zhē* syllables and MC *gē* rime syllables appear in the same rime group, a clear indicator of the emergence of final $-\mathfrak{x}$. The main vowel of *chē-zhē* syllables was ϵ and the main vowel of MC *gē* rime was *o*, so the only explanation for the merger of these two types of syllables is that both acquired a new vowel \mathfrak{x} . But the change of MC *gē* rime syllables was not complete.

5. Conclusion

The preceding analysis of *chē-zhē* syllables found in the ancient Altaic scripts confirms that the vowel system of Old Mandarin can be traced to the Liáo dynasty. This vowel system remained basically unchanged until the emergence of the new main vowel \mathfrak{x} , which resulted from many changes with causes both internal and external. The process of creating final $-\mathfrak{x}$ was not completed even by the end of the nineteenth century. The main vowel system, with or without \mathfrak{x} , is typically northern Mandarin; however the emergence of \mathfrak{x} in the more recent history of Mandarin can be used as an innovative feature for the periodization of Mandarin phonology. In the phonological history of Mandarin, if we say the emergence of the *chē-zhē* final is a representative feature of the phonology of Old Mandarin, the emergence of the \mathfrak{x} final represents the phonology of modern standard Mandarin.

Appendix

Abbreviations of Khitan Materials (for the sources of the materials listed below, refer to Chén & Bǎo 2001, and Liú et al 2009)

ZJ	耶律宗教墓誌銘 (1053)	<i>Epitaph for Yēlǜ Zōngjiào</i>
XZ	興宗哀冊 (1055)	<i>Elegy for Emperor Xīngzōng</i>
WN	蕭奮勿賦・圖古辭墓誌銘 (1068)	<i>Epitaph for Xiāo Fènwùni Túgǔcí</i>
RX	耶律仁先墓誌銘 (1072)	<i>Epitaph for Yēlǜ Rénxiān</i>
GS	耶律(韓)高十墓誌 (1076+)	<i>Epitaph for Yēlǜ (Hán) Gāoshí</i>
HS	蕭特每闊哥夫人韓氏墓誌銘 (1078)	<i>Epitaph for Hánshì, the Wife of Xiāo Tèměi Kuògē</i>
TL	耶律迪烈墓誌銘 (1092)	<i>Epitaph for Yēlǜ Dīliè</i>
ZX	耶律智先墓誌銘 (1094)	<i>Epitaph for Yēlǜ Zhìxiān</i>
DS	蕭大山(太山)和永清公主墓誌 (1095)	<i>Epitaph for Xiāo Dàishān and Princess Yǒngqīng</i>
NZ	耶律奴墓誌銘 (1099)	<i>Epitaph for Yēlǜ Nú</i>
DZ	道宗哀冊 (1101)	<i>Elegy for Emperor Dào zōng</i>
DL	韓敵烈墓誌銘 (1101)	<i>Epitaph for Hán Dīliè</i>
XW	許王墓誌 (1105)	<i>Epitaph for Xǔ Wáng</i>
HY	耶律弘用墓誌銘 (1100)	<i>Epitaph for Yēlǜ Hóngyòng</i>
SZ	皇太叔祖哀冊 (1110)	<i>Elegy for the Imperial Grand Uncle</i>
GF	宋魏國妃墓誌銘 (1110)	<i>Epitaph for the Imperial Consort of Sòng-Wèi</i>
GY	故耶律氏銘石 (1115)	<i>Stone Epitaph for the Late Yēlǜ</i>
LJ	郎君行記 (1134)*	<i>Lángjūn Travel Inscription</i>
ZG	蕭仲恭墓誌 (1150)*	<i>Epitaph for Xiāo Zhònggōng</i>
BZ	金代博州防禦使墓誌殘石 (1170)*	<i>Epitaph for the Imperial Guard of Bózhōu of the Jīn (fragments)</i>
HT	海棠山契丹小字墓誌殘石 (unknown)	<i>Epitaph found in Hǎitángshān in Khitan Script (fragments)</i>

*Produced during the Jīn dynasty (1115-1234), after the Liáo dynasty (916-1125)

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古官話的「車遮」韻字

沈鍾偉

馬薩諸塞大學阿默斯特分校

判斷古官話音系的一條辨認特徵是否出現韻母 *jɛ* 和 *ʉɛ*，或者說《中原音韻》中的「車遮韻」是否存在。這些車遮韻的字有兩個歷史來源，中古麻韻三等音節，和來自中古咸攝和山攝帶有 *-p* 和 *-t* 韻尾的三等和四等的入聲音節。這兩類音節的合併表示了：一、麻韻三等字的主要元音在顎介音後的高化 *a > ɛ / j_*，二、韻尾 *-p* 和 *-t* 在有關的入聲音節中失落。

本文主要用阿爾泰語古文字材料說明，儘管《中原音韻》中這一類韻母作為車遮韻第一次獨立出現，但是這一類韻母的存在可以一直追溯到契丹的遼代 (916-1125)。這樣一個以「車遮」音節為代表的元音系統在官話歷史中一直存在，到了十九世紀才出現了變化，產生了具有區別性的 *-ɻ* 韻母，完成了近代漢語到現代漢語的轉化。

關鍵詞：古官話，車遮韻，契丹小字，女真字，八思巴字

愚魯廬學思脞錄二則

魯國堯

杭州師範大學

中國的學術文體眾多，其一為「劄記體」。劄記體的優點在，棄繁文縟節而直奔主題，鄙抄襲陳說而獨抒胸臆，開門見山，新見迭現，無話則短，有話則長。只消翻閱一下《困學紀聞》、《日知錄》、《十駕齋養新錄》、《陔余叢考》等書，其心情必如整年整月困於大都市的水泥森林，而一朝有幸脫身，信步於鳥鳴山更幽的原生態的大自然中。昔賢劄記，短者不足百字，通常在千字之內。其大量條目的學術含金量則邁逾當今的萬字論文和動輒二三十萬字的博士論文。不揣譾陋，東施效顰，試作劄記，名曰《學思脞錄》。今進二則，為柯蔚南先生壽。一為「讀錢鍾書先生〈漢譯第一首英語詩《人生頌》及有關二三事〉」，二為「聯綿詞與『音耦』」。

關鍵詞：錢鍾書，雙聲，疊韻，連綿字

發端辭

中國文化在其悠久的發展歷程中產生了眾多文體，研究文體的專家和研究文體的論著應運而生，於是出現了「文體學」。

文體之一的「劄記體」，依我淺見，應該將它界定為學術性文體，即它是學術性的，以此區別於記異聞述軼事的隨筆、筆記之類。

以「劄記」作為書名的有明徐問《讀書劄記》、遼中立《周易劄記》、清代閻若璩《四書劄記》等等，不以「劄記」命名的而實為劄記的也很多，如清何焯《義門讀書記》、趙翼《陔余叢考》等等。就我淺聞，梁啟超在《清代學術概論》中正式提出這「劄記體」，並給予很高的評價。當然，「劄記體」這一概念的形成必然基於大量事實的存在，有事實，有眾多事實，人的認識才有可能進而概括、歸納。王應麟《困學紀聞》、顧炎武《日知錄》、錢大昕《十駕齋養新錄》、趙翼《陔余叢考》等都是「劄記體」的經典，光耀千秋，垂範後世。

惜乎時至當今，劄記體式微。時下論文，特別是西式論文幾乎成了學術文章的唯一形式。鄙見，劄記不可廢，不可任其衰亡。劄記有其特別顯著的優點，即

簡捷明快，不穿靴戴帽，不像現今的西式論文需要前有「提要」、「關鍵詞」，後有「附注」、「參考文獻」。這種西式論文模式講究起承轉合，動輒上萬言。而劄記精煉，有如金剛石。它開門見山，單刀直入，有話則長，無話則短，短者數十字，最長的一條劄記也許是《十駕齋養新錄》的〈古無輕唇音〉條，我親自數的結果，為四千四百八十一字，而其價值遠高於當今的某些幾十萬字的煌煌專著。

作為中華學人，處當今之世，不揣翦陋，雖無挽狂瀾於既倒的能力，卻願步武前修，試撰劄記，作存亡繼絕的努力。

《論語》：「學而不思則罔，思而不學則殆。」謹遵先聖遺教，故拙作名為「學思胙錄」。茲取二則，以賀柯蔚南教授七秩壽辰。

中國文人有一傳統，即有齋名。我中年時附庸風雅，取了個「愚魯廬」，疊韻雙聲繞口令也。後來讀司馬光〈進資治通鑒表〉，開篇有「性識愚魯，學術荒疏」八字，溫公是自謙，於我則實況，「其我之謂乎」？

愚魯愚魯，當自苦；學思學思，乃吾師。

第一則：讀錢鍾書〈漢譯第一首英語詩《人生頌》及有關二三事〉

1. 楊絳論錢鍾書

我的專業是漢語學，但是專業所在不一定是我的全部興趣所在。我自幼愛「看閒書」，轉文可謂之「性喜博覽」，錢鍾書先生是我崇敬的前輩學者之一，錢先生的論著我讀過若干。

錢鍾書先生(1910-1998)是中國二十世紀的天才學者，學貫中西，名高當代，稱譽宇內。關於錢鍾書先生的生平、道德、學問的文章為數甚多，我以為，莫如上海《文匯報》2011年7月8日發表的〈坐在人生的邊上〉，那是在錢鍾書先生的夫人楊絳先生期頤之壽時，《文匯報》記者與楊絳先生的筆談。最瞭解錢鍾書先生的自非楊絳先生莫屬，而且這篇文章中楊絳先生的言論是她親筆所寫的，其可信度自然與採訪記、回憶錄之類不可同日而語。現摘錄該文中楊絳先生語片段於下：

錢鍾書從小立志貢獻一生做學問，生平最大的樂趣是讀書，可謂「嗜書如命」。不論處何等境遇，無時無刻不抓緊時間讀書，樂在其中。無書可讀時，字典也啃，我家一部碩大的韋伯斯特氏(Webster's)大辭典，被他逐字精讀細啃不止一遍，空白處都填滿他密密麻麻寫下的

字：版本對照考證，批評比較等等。他讀書多，記性又好，他的旁徵博引、中西貫通、文白圓融，大多源由於此。

錢鍾書的博學是公認的，當代學者有幾人能相比的嗎？

解放前曾任故宮博物院領導的徐森玉老人曾對我說，如默存者「二百年三百年一見」。

美國哈佛大學英美文學與比較文學教授哈里·萊文 (Harry Levin) 著作等身，是享譽西方學壇的名家，萊文的高傲也是有名的，對慕名選他課的學生，他挑剔、拒絕，理由是「你已有幸選過我一門課啦，應當讓別人……」。就是這個高傲的人，與錢鍾書會見談學後回去，悶悶冒出一句「我自慚形穢。」(I'm humbled!) 陪同的朱虹女士問他為什麼，他說：「我所知道的一切，他都在行。可是他還有一個世界，而那個世界我一無所知。」

2. 關於「漢譯第一首英語詩〈人生頌〉」

1840 年的鴉片戰爭，可謂是中國三千年歷史的最大變局的標誌性的開端，西洋侵略者的炮艦轟開了中國的大門，從此中國陷入了屈辱、痛苦的境地，歷時一百多年之久。晚清七十年是西洋列強裹挾中國進入「現代化」時期的前半葉，中西文化的碰撞是這一時期的重要內容，無論在文學方面和語言方面莫不有大大可探索，大大可研究的園地。錢鍾書先生長文〈漢譯第一首英語詩《人生頌》及有關二三事〉(《七綴集》修訂本，上海古籍出版社，1994 年，第 137-167 頁)，是對美國著名詩人郎費羅的〈人生頌〉的兩種漢譯，即威妥瑪提供的漢譯底本和董恂的漢譯絕句組詩的詳細的述評，並兼論及「有關二三事」。不才如我，拜讀多次，深為敬佩，作了摘錄。估計語言學人讀過錢鍾書先生這篇文章的很少，茲抄述一二以饗同行。我也偶加按語，以陳陋見，我有歷史癖，所以逐抄了一些相關論著的片段，也許能起彼此發明的作用，於中可以瞭解晚清時期的社會史、文化史、語言史、語言學史。

關於郎費羅〈人生頌〉漢譯的始末，錢鍾書先生云：「郎費羅最傳頌一時的詩是〈人生頌〉(A Psalm of Life)」〈人生頌〉是破天荒最早譯成漢語的英語詩歌。」「〈人生頌〉既然是譯成漢語的第一首英語詩歌，也就很可能是任何近代西洋語詩歌譯成漢語的第一首。」當時的英國駐華公使威妥瑪 (Thomas Francis Wade) 翻譯郎費羅〈人生頌〉為中文文言文，然後董恂據之譯成絕句組詩。在同治年間任職於總理各國事務衙門的方濬師著《蕉軒隨錄》，其卷十二〈長友詩〉

條：「英吉利使臣威妥瑪嘗譯歐羅巴人長友詩九首，句數或多或少，大約古人長短篇耳，然譯以漢字，有章無韻。請于甘泉尚書，就長友底本，裁以七言絕句。尚書閱其語皆有策勵意，無礙理者，乃允所請。」

甘泉尚書指戶部尚書董恂，揚州府甘泉縣人。咸豐十一年(1861)，清廷設立「總理各國事務衙門」，簡稱「總署」，相當於外交部。董恂是當時的「總理各國事務衙門」的「當家副部長」，如按當今中國大陸用語，似應為「常務副部長」。

3. 錢先生對威妥瑪漢譯的評價

「威妥瑪的譯文不過是美國話所謂學生應外語考試的一名『小馬』(pony)——供夾帶用的逐字逐句對譯。」「威妥瑪詞意格格不吐的譯文——媒介物反成障礙物，中間人變為離間人。」「威妥瑪對郎費羅原作是瞭解透徹的，然而他的漢語表達力很差。辭彙不夠，例如‘art’不譯為『藝業』、『術業』而譯為『作事』；句法不順不妥，有些地方甚至不通費解，例如『由己埋己』(Let the dead past bury its dead)，『看則繫念』(remind us)。為使意思明白，他添進了闡釋，例如『人生世上行走非虛生也』(Life is real)，也多此一舉。懂英語的人看出這匹『小馬』表現得相當馴服聽話，而董恂可憐不懂英語，只好捧着生硬以至晦澀的漢譯本，捉摸端詳，誤會曲解。單憑這篇譯文我們很容易嘲笑那位在中國久駐的外交官，回英國主持漢文講席的大學教授。不過，漢語比英語難學得多；假如我們想想和他對等的曾紀澤所寫離奇的『中西合璧詩』，或看看我們自己人所寫不通欠順的外語文章，就向威妥瑪苛求不起來了。」

4. 晚清年間掀起的學習英語的熱潮，光緒皇帝熱衷於此。

「在一切外語裡，我國廣泛和認真學習得最早的是英語，正像袁枚的孫子所說：『中土之人莫不以英國語言為「泰西官話」，謂到處可以通行。故習外國語言者皆務學英語，於是此授彼傳，家弦戶誦。近年以來，幾乎舉國若狂。』」錢先生自己注釋，謂出處為袁祖志《出洋須知》。

「丁韞良(W. A. P. Martin)《中國六十年》(*A Cycle of Cathay*) (1897) 316~317 頁記載光緒帝和王公大臣一窩蜂學英語(a rush to learn English)的趣事。」丁韞良，美國人，任京師同文館總教習。

張德彝，「精通英語，原是同文館高材生，曾被選為光緒帝的英語老師」。

國堯按，錢先生提到的丁韞良的《中國六十年》(*A Cycle of Cathay*)，本世紀出版了中譯本，即《花甲憶記——一位美國傳教士眼中的晚清帝國》，該書為沈

弘等譯（廣西師範大學出版社，2004 年）。其第 214-215 頁：「大約四年以前，（同文館）有兩位校友張德彝先生和沈鐸先生從海外歸來，正如董恂所預言的那樣，被派去給光緒皇帝教授英語。爲了對自己的教師表示尊敬，光緒允許他們在王爺和大臣們跪見皇帝時仍然坐在自己的身邊。」「由於每天半小時的英語課程是在清晨四點鐘左右開始，老師們必須在半夜剛過就起身入宮，有時候在上課前要等候好幾個小時——因爲這項工作太累人了，他們被獲准分擔教學任務，輪流給皇帝上課。中國的皇帝也許是惟一要請兩位教授來上一門課的人。雙導師制雖然可以增加皇帝的尊嚴，但他們也有不便之處。有一次其中的一位老師向我抱怨說，另一位老師故意使他難堪，在皇帝面前糾正了他對一個詞的發音。我警告他們說，如果醫生們對於治病的看法莫衷一是的話，後果將會是非常嚴重的，何況他們的學生還是皇帝。在很長一段時間裡，他們尊貴的學生上課都很準時，很少會缺一次課，在閱讀和寫作方面也顯示出相當的穎悟。但他的口語卻糟糕透頂，試想如果學生犯了錯誤老師從不敢糾正，又哪能學得好呢？所有的對話練習都是預先寫下來交我審定，然後再給皇上，讓他重抄一遍。除了中文之外，清朝的皇帝還得學習滿文和蒙文。因此臣民們對於皇上學英語並不覺得特別吃驚，儘管他們還是將它視爲一種極其屈尊的行爲。皇帝剛開始學習英語時，宮裡掀起了一股學英語的熱潮，王爺和大臣們都一窩蜂地尋找英語課本和教員。可是當各國特使在過年的時候都謝絕前來恭聽皇上所準備的一篇英文演講稿以後，君臣們學習英語的熱忱頓時趨向於低落。」第 235 頁：「一位蒙古親王曾到過我的寓所，請我指點他學英語。」第 238 頁：「（李鴻章）聽了我的彙報後，他叫出他的兩個小兒子，讓我當場考一下他們的英語熟練程度。」

自上世紀七十年代末至今三十餘年矣，學英語的熱潮、或曰狂潮席捲中國大地，用袁祖志的「舉國若狂」四字形容必十分切合，相形之下晚清時期的學英語的百態則瞠乎其後矣。如今黨政機關要求、組織、安排中高層官員學習英語，東部沿海某些大學如浙江大學規定沒有出國經歷半年者不能晉升高級職稱，即使是從事中國古籍整理和研究的教師也必須如此，一刀切。據云，上海某中學甚至用英語唱中國國歌。狂熱之情、之態，難以縷述，此處僅例舉一二而已。

5. 英語並非到處通行

「袁祖志」「他在光緒九年(1883)出洋後，發現英語並非『到處通行』。」

國堯按，我的朋友，華東師範大學潘文國教授，2011 年夏應奧地利維也納大學及德國一些學校之邀講學，他和夫人也遊歷了西歐好多個國家，返國後告訴

我，他發現英語並非到處通行。

1883 年的袁祖志，2011 年的潘文國都如是說，皆親身經歷，當非妄言。我認為值得記述，以供研究世界語言的專家作參考。

6. 曾紀澤學習外語的不尋常的經歷

翁同龢《翁文恭公日記》光緒十三年正月初十日：「詣總理衙門，群公皆集。未初，各國來拜年。余避西壁，遙望中席，約有廿余人，曾侯與作夷語，啁啾不已。」蔡鈞《出使須知》：「襲侯于英、法二國語言皆能通曉，與其人會晤，彼此寒暄。」錢鍾書先生〈漢譯第一首英語詩《人生頌》及有關二三事〉文云：「丁韞良教過曾紀澤英語，《中國六十年》365 頁說曾的口語『流利』而不合文法 (fluent but ungrammatical)。」「曾紀澤作得很好的詩，又懂英語，還結合兩者，用不通的英語翻譯自己的應酬詩。」「曾紀澤所寫離奇的『中西合璧詩』」。

國堯按，曾國藩以鎮壓太平天國功封侯爵，死後長子曾紀澤襲封，故蔡鈞謂之「襲侯」。

鍾叔河《從東方到西方》（岳麓書社，2002 年）第 316 頁引錄曾紀澤〈大英國漢文正使梅君碑銘〉，曾紀澤述及其學外語的經過：「同治末年，……以吾舊時所知雙聲疊韻、音和類隔之術，試取泰西字母切音之法，辨其出入而觀其會通，久之，亦稍稍能解英國語言文字。然窮鄉僻左，無友朋相與講習，不敢謂閉門造車，出而合轍也。光緒丁丑秋，以承襲侯封，來京觀謝，僑寓禁城東南，與泰西諸國朝聘之使，館舍毗鄰。於是英國漢文正使梅君輝立偕副使璧君利南聞聲見訪，縱談竟日。而績學之士英國艾君約瑟、德君約翰、美國丁君韞良，亦先後得訂交焉。」《從東方到西方》同上頁引錄曾紀澤光緒四年九月十七日的日記：「余能西音，然在湘苦無師友，取英人字典鑽研逾年，事倍功半；又年齒漸長，自憾難記而健忘，一知半解，無可進矣。深願友朋年富而有志者，相與勉焉。」鍾叔河書第 317 頁載曾紀澤回答慈禧太后語：「臣略識英文，略通英語，系從書上看的，所以看文字較易，聽語言較難，因口耳不熟之故。」

丁韞良著，沈弘等譯《花甲憶記——一位美國傳教士眼中的晚清帝國》第 245 頁：「1877 年，曾紀澤奉詔到北京等候聖上旨意時，已年過不惑。他已經開始學英語，目的是為了參加外交工作；一位家族世交，郭嵩燾率領的赴英使團引發了曾對外交的興趣。曾紀澤遠居於內陸，幾乎從未見過白種人，主要靠語法和詞典學習英語。不知是因為隔絕（它使曾缺乏比較的機會）還是因為奉承（貴族總是少不了有人奉承，所以自我膨脹），曾紀澤對自己的英語水準非常自負，常

常向朋友們贈送雙語題詩團扇，詩是他自己創作的。下一頁上有他送給我的詩扇的複製件。中文原詩深得風雅，但其譯文則是典型的『巴布英語』。……曾沒有進入同文館做學生，他找我做私人指導，尋求瞭解有關地理歷史與歐洲政治的資訊，並請我批改他這方面的英語文章。我無須指出，上面幾行沒有批改過，且是他第一次來時寫的。他每週在我的住處吃兩三次飯，新年時身穿貂皮裘袍和皮帽來拜訪我，帽上插孔雀翎，佩紅寶石頂戴，新年時如此打扮是專為拜訪父母、老師及官長的。曾英語流暢，但不合語法，閱讀、寫作總有困難。但他知道的那一點英語使他在社交活動中大佔優勢（而社交是外交活動的一半），並使他成為中國派駐外國首都最有才幹的使者。」

堯按，我之所以不憚煩地引抄鍾叔河文與丁韞良書，因曾紀澤的事蹟，確可作為英語習得的個案。曾紀澤自敘的話：「以吾舊時所知雙聲疊韻、音和類隔之術，試取泰西字母切音之法，辨其出入而觀其會通，久之，亦稍稍能解英國語言文字。」這一段，音韻學者讀後必會心一笑，柯蔚南教授以為何如？

7. 「漢語比英語難學得多。」

「漢語比英語難學得多。」這是錢鍾書先生的話，前已引。

按，鍾叔河《從東方到西方》第 316 頁引錄曾紀澤光緒四年九月十七日的日記：「西文條例雖極繁密，然於空靈處輕重分寸不甚入細，故較華文為易。」

8. 「方言」？

錢鍾書先生文引王韜《蘅華館詩錄》卷四〈目疾〉述在倫敦的處境：「口耳俱窮惟恃目，暗聾已備慮兼盲。」自注：「來此不解方言，故云。」

國堯按，王韜所云的「方言」絕非指英語的方言，而是指英語，英語對王韜而言，異方之言也。上世紀末，張清常先生和我各自發現了這個問題，並各著文給予正確的詮釋。拙文〈「方言」的涵義〉，發表於《語言教學與研究》1992 年第 1 期，增補後易名為〈「方言」和《方言》〉，收入《魯國堯語言學論文集》（江蘇教育出版社，2003 年），該書第 726-727 頁〈跋語：讀書恨少〉裡續有補充。

9. 外來詞一撮

在錢鍾書先生的這篇長文中，涉及到好幾個外來詞，有音譯的，有意譯的，現摘錄類聚於下：

「外交部」「英呼曰『佛林敖非司』，譯『佛林』(foreign)外國也，『敖非司』(office)，衙門也」。

「斌椿……向瑞典『太坤』(王太后)獻詩『爲壽』。」

「把外國字的譯音嵌進詩裡，像『彌思』(自注：譯言女兒也[miss]小字是安孳，明慧堪稱解語花)。」

高錫恩《友白齋集》卷八〈夷閨詞〉第三首：「寄語儂家赫士勃(自注：夷婦稱夫曰赫士勃[husband]，明朝新馬試騎來。」第八首：「纖指標來手記新，度埋而立及時春(夷人呼娶親爲『度埋而立』[to marry])。」「

「張祖翼詩裡用譯音字很多，例如第二十四首『二八密司親手賣，心慌無暇數先令』，……第四首吟維多利亞后『五十年前一美人，居然在位號「魁陰」』，音譯 queen 字，又說出王后是『陰』性的『魁』首，頗有巧思。音譯外語入詩並不限於輕鬆和打油的詩體，也偶見於正經的古體，例如趙之謙〈悲尸居士詩剩·子奇復用前韻成《閩中雜感》四章見示，依次答之〉，『呼「度」一吠凡犬馴(自注：夷呼犬曰「度」，入聲)，物有相畏性所因』，『度』就是《文明小史》三十四回所謂『外國的道猓(dog)』。這些都早於梁啟超《飲冰室詩話》講的『喀私德』、『巴力門』。後來像柯紹忞《寥園詩抄》卷二〈嚴紹光西湖雅集圖〉：『古人圖畫難俱述，誰似符頭孤列勿？』自注：『譯言攝影(photograph)』，也是清末守舊派詩篇中一個突出的例。」「

「王之春《使俄草》光緒二十一年正月二十三日日記：『禮官等來，……請至皇家大劇院觀劇。……齣名《鴻池》，假託德世子感戀雁女而妖鳥忌之。』《鴻池》正是《天鵝湖》的最早譯名，借用了漢代御詔的現成名稱(見《後漢書·安帝紀》，又《趙典傳》，又《百官志》)。也許因爲譯名太古雅了，現代學者沒有對上號來。」「

「西班牙(日斯巴尼亞)」。

10. 晚清昏聩官員對西洋的無知

「汪康年曾有一條記載：『通商初，萬尚書青籬云：「天下那有如許國度！想來總是兩三國，今日稱『英吉利』，明日又稱『義大利』，後日又稱『瑞典』，以欺中國而已！』又滿人某曰：「西人語多不實，即如英、吉、利，應是三國；現在只有英國來，吉國、利國從未來過。』』」

11. 出洋熱之始

「晚清直刮到現在的出洋熱那股狂風並非一下子就猛得飛沙走石，『開洋葷』當初還是倒胃口的事，張祖翼曾在光緒十二年充當駐英公使劉瑞芬的隨員，晚年回憶說：『郭嵩燾使英倫，求隨員十餘人，無有應者，豈若後來一公使奉命後，薦條多至千餘哉！』」

12. 彼時美國的國際地位並不高

「當時人對歐羅巴遠比對美國看重。美國的國際地位還不算很高，它的『顯著的命運』(manifest destiny) 還沒有招算出來，它還夢想不到第一次世界大戰後列入『五強國』，更不用提第二次世界大戰後列入『兩個超級大國』。它派駐英、俄、法、德的公使只是『二等使』，和中國以及日本、秘魯、暹羅、摩納哥等的公使是一輩。」「最近，愛好中國建築的美國女財主布洛克·阿斯德夫人 (Mrs. Brooks Astor) 在她的《腳印》(Footprints) 裡，還回憶起中國人稱呼『美國佬』(a Yankee) 為『二級英國人』(a second chop Englishman)。」

國堯按，梁啟超於 1899 年撰〈憂國與愛國〉文，描繪當時的崇洋派入木三分：「視歐人如神明，崇之拜之，獻媚之，乞憐之，若是者，比比皆然，而號稱有識者益甚。」（《梁啟超全集》第一冊，北京出版社，1999 年）若梁啟超復生，今日亦必寫此文，但「歐人」一定改為「美人」。

又，為錢先生補遺：自蘇聯解體後，美國則「一超獨霸」，成了世界警察。今日中國很多人都以為美國的強大一直如此，緣於對歷史的不瞭解。

13. 「官大學問大」

去年老友某君給我的電子信中使用了一句也許是當代漢語的慣用語「官大學問大」，給我留下了深刻的印象。讀錢鍾書先生〈漢譯第一首英語詩《人生頌》及有關二三事〉文，其中頗有與「官大學問大」之理契合者。

錢鍾書先生說：「『紗帽底下好題詩』原是中國的一句老話（《鏡花緣》十八回），手裡這管筆占着頭上那頂紗帽的便宜。」

錢先生又說：「寫詩、刻詩集的人多絕不等於詩人多」，「評選詩文常是社交活動，而不是文藝活動」，這兩句話也顯示了錢鍾書先生的非凡的洞察力，富含睿智，應該算作名言，大可針砭時下之弊，如今刊物之多，論文之多，專著之多，遠邁前代，然而「絕不等於」學者「多」。

在當今中國，刊物和多人撰作的論文合集中，爲官者的文章例居前。常理：居前者，學問必大。

第二則：聯綿詞與「音耦」

中國傳統語言學中，有「聯綿詞」（或稱「連綿字」）這個術語，這個術語的提出，是植根於漢語實際的，這是中國古代語言學家的自主創造，堪稱可貴的創造。

聯綿詞，中國現代詞彙學稱作雙音節的「單純詞」。

趙克勤《古代漢語詞彙學》（商務印書館，1994年）：「連綿字絕大多數是雙聲疊韻的。例如『參差』『栗烈』『邂逅』『容與』『倉猝』『憔悴』（案，原舉例甚多，筆者僅約取數則，下同）等連綿字兩個音節的聲母相同，屬於雙聲。『崔嵬』『逍遙』『倉庚』『婆娑』『馮陵』『殷勤』等連綿字兩個音節的韻相同，屬於疊韻。『燕婉』『綿蠻』『輾轉』『繾綣』等連綿字聲母和韻都相同，屬於雙聲兼疊韻。雙聲疊韻是識別連綿字的重要標誌之一。當然並非所有雙聲疊韻的複音詞都是連綿字，例如『親戚』『將軍』是雙聲，『剛強』『人倫』是疊韻，但它們都是合成詞。也有不少連綿字既非雙聲又非疊韻，例如『睢鳩』『鸚鵡』『梧桐』『籲嗟』等。」（第50-51頁）《古代漢語詞彙學》又說道：「重言詞只是一種籠統的說法，實際上它由兩類組成：一類的意義與單字的意義基本相同；一類的意義與單字的意義毫無關係。」「一種重言詞是由兩個形音義完全相同的單音詞組成，重言詞的意義基本上就是單音詞的意義，這實際上是兩個相同單音詞的重疊形式，因此，這種重言詞又可以稱爲『疊詞』。例如，《詩經·王風·黍離》：『悠悠蒼天』的『悠悠』，是悠遠的意義，與『悠』同義，形容詞重疊。……一種重言詞雖然也由兩個形音義完全相同的單字組成，但是兩個字只不過代表兩個音節，它們與重言詞的意義毫無關係。這種重言詞只是兩個單字的重疊，因此，又可以稱之爲『疊字』。例如《詩經·秦風·黃鳥》『交交黃鳥』的『交交』，表示鳥的叫聲，與『交往』的『交』意義無關。……如果從結構來分析，『疊詞』是由詞組轉化成的合成詞，而『疊字』則是與連綿字性質相同的單純詞。」（第54-55頁）

對「雙聲」、「疊韻」、「重言」這三個傳統術語，我使用時，它們所包的範圍比較大，一個雙音節單純詞、或一個雙音詞、或一個雙音節短語，如果它們的兩個音節的聲母相同，就叫做「雙聲」；它們的韻母中的韻（含調）相同，叫做「疊韻」；還有「重言」，寫成漢字，兩個字全同，那聲、韻、調自然全同，不論是單純詞還是單音詞的重疊。

我深深地感到，從音韻學的角度出發，需要一個能概括這三者的術語，即需要一個更高的術語，或者說，上位術語。筆者爲之思考，仿嚴復的說法，「旬月踟躕」，現不揣翦陋，特在此向語言學界推薦我造的一個新詞「音耦」。我的看法：無論「聲」、「韻」或「調」，皆可以以「音」字統攝之。《廣韻·厚韻》：「耦，耦耕也。」《論語·微子》：「長沮、桀溺耦而耕。」指兩人各執一耜並肩而耕。因此新造詞「音耦」的定義可爲，語言中的一個雙音節單純詞或者兩個詞素構成的雙音詞，或者雙音節的短語，它們的兩個音節（視覺符號是兩個漢字）的構成成分（聲、韻、調），其一、或其二、或三者，相同，就叫做「音耦」。

一個「音耦」的「元素」（或「元」），必須=2，即音耦是封閉性的。

創造「音耦」一詞的理據陳述如上。現在討論漢語中存在的「音耦」現象，可以說，音耦是漢語的特點（或靚點）之一。

「音耦」還可以加進一個成員，即非聯綿詞的兩個音節構成的詞或短語，如果它們的聲調相同，不妨管它們叫「駢調」，詳下。

合「雙聲」、「疊韻」、「駢調」、「重言」四者，統謂之「音耦」。

我近來研究西晉木華的〈海賦〉，現就〈海賦〉舉一些例子於下：

雙聲音耦：迤涎 陵巒 洑澌 渺彌 噓噏 湑潔 迤揚 呀呬 澎湃 潭淪
回互 仿佛 閃屍 冶夷 惚恍 掩鬱 渝溢 灌漑 澍渭 寶貝 綾羅

疊韻音耦：淳涵 瀾汗 決滌 瀝滴 滲淫 決瀆 激灑 沖灑 沆瀣 炭漫
瀆淪 沕迭 匍匐 葩華 礧磊 枝岐 蛭像 黽黽 倏昱 漚溟 鯤鱗 仿佛
黽黽 蟬娟 高濤 踟躕 踳躅 離襍 淋滲 叫嘯 縹眇

重言音耦：瀼瀼 濕濕 泐泐 汨汨 掣掣 泄泄 泛泛 悠悠 萬萬 淫淫
芒芒

在聯綿詞中，「雙聲」是不管聲調同異的，「韻」是含「調」的，因此疊韻必然同調，至於重言，毋庸贅言。

我認爲，還存在一種音耦，即非聯綿詞中，作家連用的兩個單音詞或兩個詞素構成的雙音詞存在聲調相同的關係，可謂之「駢調」。例如〈海賦〉的第一段，就有「天綱」、「洪濤」、「長波」、「乃鏐」、「騰傾」、「江河」、「竭涸」、「涓流」、「連山」，等等，其中平聲駢調爲多。這種駢調現象也許是自然的，但是我認爲絕不能排除賦家的有意識的創造行爲。兩個音節聲調相同，即駢調，不是能使美感更豐滿、更充盈嗎？詩人的最大追求就是美啊。

詳見拙文〈語言學與美學的會通：讀木華《海賦》〉，刊載於《古漢語研究》2012年第3期。

Trivial Musings from Dull Lǚ's Cottage Study

Lǚ Guóyáo

Hangzhou University

This essay consists of two notes written in traditional Chinese style. The first concerns Qián Zhōngshū's study of Chinese to English translation in late Qīng times; the second concerns terminology pertaining to binomes.

Key words: Qián Zhōngshū, binomes, alliteration, rhyme

The Ricci-Ruggieri *Dicionário Europeu-Chinês*: Linguistic and Philological Notes on Some Portuguese and Italian Entries

Joseph Abraham Levi
The George Washington University

The *Dicionário Europeu-Chinês* was the first full-fledged European-Chinese dictionary, compiled between 1583-1588 by Father Matteo Ricci, S. J. (1552-1610), and Father Michele Ruggieri, S. J. (1543-1607), to assist European missionaries in learning Chinese. Its entries reflect interaction of languages—Chinese, Portuguese, and, whenever available, Italian—cultures, and faiths, namely, Catholicism and Confucianism. This study presents a series of notes on a number of entries, examining them from a linguistic and philological perspective for what they reveal regarding the evolution of Portuguese and Italian. Hence, this study does not entertain the Chinese counterpart of the *Dicionário*.

Key words: *Dicionário*, Chinese, Italian, Jesuits, missionaries, Portuguese

1. Introduction

Many studies have focused on missionary dictionaries and glossaries for their value in understanding Chinese language history, and W. South Coblin has made many outstanding contributions in this area.¹ The present work too examines a missionary dictionary, but rather than focusing on Chinese, it explores this work as a source for understanding the evolution of Portuguese and, to a lesser extent, Italian. This study is a linguistic and philological analysis of some folio entries of the *Dicionário Europeu-*

¹ These works are listed in the bibliography of South Coblin's works appended to this volume. I would like to thank the editors for having given me the opportunity to contribute to this special volume honoring South Coblin. I will forever be indebted to South for having introduced me to European missionary linguistics in China and for having opened up doors that I did not dare crack on my own. South's unparalleled linguistic and philological knowledge is indeed counterbalanced by an equally profound sense of integrity and collegiality, rare in academia. I recall with fondness the many afternoons spent in South's office working on our projects. Needless to say, I have learned immensely from him. This work is my way of honoring South and thanking him for being there for me at a very difficult time of my academic life. Happy Birthday South!

Chinês compiled by Father Matteo Ricci, S. J. (1552-1610), and Father Michele Ruggieri, S. J. (1543-1607). Composed between 1583-1588, the *Dicionário* was the first full-fledged European-Chinese dictionary written, and was also the first bilingual dictionary composed by and for missionaries to learn Chinese. It incorporates Chinese, Portuguese, and, whenever available, Italian. The *Dicionário* is divided into columns for Portuguese and Chinese, including phonetic transcription and Chinese characters. Between folios 32 recto and 34 recto there is an additional fourth column with Italian.

When missionaries arrived in China, one of their first goals was to learn the local language(s). To this end, they created small dictionaries or *syllabaries*, i.e. syllabic lists of common words that could introduce Christian doctrine to non-European neophytes. Many of these works were based on the *Doutrina Cristã* (Christian Doctrine) formulated by Father Marcos Jorge, S. J. (d. 1571), which, in its turn, followed the tradition of the *cartilhas*, basic school texts that used religious examples to teach students to read and write. Such works had two goals, as they provided both academic and religious instruction. The *cartilhas* included basic notions of grammar, orthography, and Christian doctrine, and should be considered the precursors of modern grammars. The works of Jerónimo Cardoso (d. 1568/1569?), without a doubt the founder of Portuguese lexicography, also provided a model, as his works served as the prototype for all subsequent grammars, dictionaries, glossaries, compendiums, reference works, thesauruses, and encyclopedias produced in the Portuguese Empire, from Lisbon to Macau, and from Goa to Malacca. Although most of Cardoso's works were produced in Latin, there were a few important bilingual publications, all concentrating on Latin/Portuguese lexicography.²

The linguistic works produced by Jesuits missionaries followed *pari passu* the routes of Portuguese maritime expansion, and many early works took Japanese as their point of reference.³ For example, the *Dictionarium Latino Lusitanicum, Ac Iaponicum* is a trilingual dictionary, with Latin, Portuguese, and Japanese, based on the famous multilingual dictionary of Ambrogio Calepino (c. 1440-1510). Also important was the well-known *Dicionário Japonês-Chinês*, which contains more than thirty thousand entries, including religious, literary, and ordinary topics, and even the indecorous. The

² Examples include the *Portuguese-Latin Dictionary*, (Lisbon, 1562-1563), a *Brief Dictionary of Ecclesiastical Terms* (*Breue Dictionarium Vocum Ecclesiasticarum*), a treatise on ancient Greek and Latin coins, weights, and measurements, (Coimbra, 1561), and the *Latin-Portuguese/Portuguese-Latin Dictionary*, (Coimbra, 1569-1570), later completed by German scholar Sebastian Stockhammer.

³ Other examples include the *Arte da Lingoa de Iapam* (1603-1604), and the *Arte Breve da Lingoa Iapoa* (1620); *Doutrina Cristã* (four editions, 1591, 1592, and two of 1600); plus the *Rakuyoshu*, or 'Collection of Fallen Leaves', a tripartite dictionary of Chinese characters explained in Japanese (Nagasaki, 1598); see Bailey (1960-1961).

objective was not merely to teach European missionaries the language, but to speak correctly using refined Japanese.

In 1583, Father Matteo Ricci arrived in China accompanied by Father Michele Ruggieri. Fathers Ricci and Ruggieri were among the many Jesuit missionaries sent to Portuguese Macau in 1582 to study Chinese language and culture. Ricci was by far the most influential European missionary to China, and he left a lasting impact on China, religiously as well as scientifically. He spent the rest of his life in China conducting missionary work and scholarly research on many subjects including astronomy, cartography, cosmology, mathematics, theology, and most importantly for the present study, Sino-Portuguese philology.

During the last months of 1598, on his return voyage to Nanking, Father Ricci, together with Father Lazzaro Cattaneo, S. J. (1560-1640) and Father Sebastião Tchong Ning-jen (Xom'Mim Gem) Fernandes, started to compose a small dictionary of Chinese terms. This likely became the basis of the future *Dicionário Português-Chinês*. During the long months of navigation, Fathers Ricci, Cattaneo, and Fernandes gathered equivalent terms in both languages, and also set the signs of the five tones and aspirates in Mandarin; however, the *Dicionário* does not contain these symbols. Certain features, including the fact that the manuscript does not contain diacritics, and the presence of certain Portuguese terms and expressions, allows us to date this work. For instance, the word used to express the idea of Catholic priest is *Sem*, i.e. bonze; hence, the *Dicionário* was used before 1592, when the Jesuit fathers finally stopped using this term for self-reference. Moreover, the *Catechetical Conversations* prefacing the *Dicionário* were composed before 1589. The first *Dicionário* was compiled during the fathers' stay in Zhaoqing and, given that Father Ruggieri left China in 1588, the date of composition should be placed within the 1583-1588 quinquennium.

Diacritics were used for the first time in Linquim around 1598, after Father Ruggieri had already left for Italy. Fathers Cattaneo, Ricci, and Sebastião Tchong Ning-jen (Xom'Mim Gem) Fernandes are therefore the authors of this second version of the *Dicionário*, which included the tones and the aspirates of Chinese sounds. Apparently this dictionary also had a Latin title, *Vocabularium ordine alphabetico europaeo more concinnatum, et per accentus digestum*.⁴

The *Dicionário* is neither a glossary nor a mere list of words and terms classified under different semantic categories. It is a dictionary between two languages and not, as Paul Pelliot (1878-1945), has suggested, a phonetic dictionary of Chinese sounds put into an alphabetical order.⁵ The importance of the *Dicionário*, in addition to providing us with an invaluable transcription of Chinese in Latin script, resides in the lexical

⁴ Theunissen (1943:225).

⁵ D'Elia (1938:173), Pelliot (1935a:58-94), Pelliot (1935b:95-151).

choice. In this task Fathers Ricci and Ruggieri were assisted by Father Tchong Ning-jen (Xom'Mim Gem) Sebastião Fernandes, the first Chinese Jesuit.

As for its contents, the *Dicionário* was most certainly the first bilingual dictionary in Sino-European history; it contains words in Portuguese according to an alphabetic-radical order—or rather, with definitions grouped according to the root of a given word—with the equivalent in the other language: Chinese characters together with Latinized phonetic transcription. Since Fathers Ricci and Ruggieri were Italian, the phonetic Romanization follows the rules of the Italian alphabet and, moreover, the system devised by Father Ricci himself. Not all the Portuguese entries of the *Dicionário* have their equivalent in Italian and vice versa. The same lack of correspondence is encountered in the Chinese section, in its phonetic transcription as well as in Chinese characters proper. This is especially true if one or two synonyms are given. Most Portuguese entries are mere single words—one or two words in a row, the second a synonym or an analytical explanation of the former—or small sentences, complete or not. All seems to indicate that the criterion employed in the choice of the words follows the Chinese lexicon used at that time.

The first column, with Portuguese, was certainly written by a European, perhaps Father Ruggieri or Father Ricci.⁶ Father Ricci almost certainly wrote the second column, which contains the Romanization of the Chinese characters. The third column could be Father Ricci's or Father Ruggieri's work, as suggested by D'Elia or, as conjectured by Father Paul Fu-mien Yang, S. J. they are of Chinese provenience (Yang 1960). Sometimes we encounter characters written by another hand.

The lexicon generally appears in alphabetical order, though there are many exceptions. The first word is *Aba de uestidura*, folio 32 verso, whereas the final entry is *Zunir a orelha*, folio 156 verso.⁷ The Portuguese, as it appears in *MS. Archivum Romanicum Societatis Iesu, Jap.-Sin., I, 198*, presents a fairly uniform orthography. This uniformity accords with the Portuguese spoken at this time, and indicates that some linguistic phenomena had already occurred during the long period of evolution from Vulgar Latin to all the Romance languages and dialects, and others were still in evolution. Such evidence provides important information about language history, a topic to which we now turn.

⁶ D'Elia supposed that it could have been any scribe; D'Elia (1942-1949:2, Tavola V).

⁷ In both his editions of the *Dicionário Português-Chinês*, 1935 and 1949, respectively, D'Elia erroneously mentions as the first word the verb *Abitar*. However *Abitar* can be found at the beginning of folio 33 recto, and not on folio 32 recto; D'Elia (1942-1949:2. 32, n. 1).

2. Linguistic and philological notes

2.1 Portuguese sibilants and Arabic loanwords

The spelling of Portuguese words like *cabesa*, *preça*, *ATISAR*, *BRAsada*, and *Bisesto*, spelled and pronounced today *cabeça* /kɐbɛsɐ/ ‘head’, *pressa* /prɛsɐ/ ‘hurry’, *atiçar* /ɐtisár/ and /ɐtəsár/ ‘to poke the fire, to instigate’,⁸ *braçada* /brɐsáðɐ/ ‘armful’, and *bissexta* /bisɛštu/ ‘leap-year’ respectively, exemplify the confusion between words with an etymological *s* and words that suffered the Vulgar Latin passage to Old/Modern Portuguese of voiceless dental affricate /ts/ to voiceless alveolar fricative /s/ and the ensuing spelling indecisiveness: e.g. the entry *Bolça*, Standard Modern Portuguese (hereafter abbreviated SMP) *bolsa* /bólsa/ from Greek *bursa*, ‘leather’, via the Late Latin form *bursa* or *byrsa*, ‘purse’, vs. Latin *puteum* > Old Portuguese /póteu/ > /pótiu/ > /pótsu/ > SMP /pósu/, the latter spelled today *poço*, ‘a water well’.⁹ The words *Çumo*, SMP *sumo*, ‘juice’, from Greek *zomós*, ‘dressing, gravy’, via Arabic زُوم *zūm*, ‘fruit/plant juice’, and *çinzibra*, SMP *gengibre*,¹⁰ ‘ginger’, from Arabic زَنْجَبِيل *zanjabīl*, via Late Latin *zingibere* followed the same trajectory. That is, voiceless dental affricate /ts/ became voiceless alveolar fricative /s/.

By contrast, *laranja*, SMP *laranja*, ‘orange’, is not etymological. It came from Persian نارنگ *nāranj*, ‘bitter orange’, or نارنگی *nāranjy*, ‘mandarine, tangerine’, and entered Portuguese via Arabic نَارَنْج *nāranj*. Interestingly, as a result of the Muslim occupation of the Iberian Peninsula (711-1492), there soon came to be a distinction between sweet and bitter oranges: the climate in Portugal proved to be favorable for the abundance of the بُرْتُقَال *burtuqāl*, or rather, the ‘sweet oranges from Portugal’ (بُرْتُقَال *Burtuqāl* is the Arabic rendering of Portugal), whereas the old Persian word نارنگ *nāranj* or نارنگی *nāranjy*, via Arabic نَارَنْج *nāranj*, came to denote the ‘bitter kind of orange.’ Though found in Arabic, Persian, and also Italian, this distinction is absent in Portuguese, which uses one word for both kinds of oranges.¹¹

⁸ From Latin **attitiare*, from *titio*, ‘firebrand, torch’.

⁹ Other examples found in the *Dicionário* are *Cabesal*, SMP *cabeçal* (from Iberian Vulgar Latin **capitia* + *al*), and *almofada*, from the Arabic الْمَخْدَّة *al-muxaddah*, ‘pillow’; *Cabesudo*, SMP *cabeçudo*, ‘headstrong’; *Cabeseira*, SMP *cabeceira*, ‘bed head’; *colaço*, SMP *colaço* or *irmão de leite*, ‘foster-brother’, from the Latin *collacteu*, ‘a person with whom a mother’s milk is shared’; *Preço*, SMP *preço*, ‘price’; *Presso*, SMP *preço*, ‘price, worth, value’; *Viço*, SMP *vício*, *viço*, ‘vice’; *Lança*, SMP *lança*, ‘lance’; *Lançada*, SMP *lançada*, ‘thrust of a spear’; *Lanzar*, SMP *Lançar*, ‘to throw, to hurt, to fling’; and *Lanzar rais*, SMP *lançar raízes*, ‘to strike root’.

¹⁰ Elsewhere in the *Dicionário* it is spelled *Ginciure*.

¹¹ The words for ‘sweet orange’ in Arabic, Standard Italian, Persian, and Neapolitan are بُرْتُقَال *burtuqāl*, *portogallo*, پرتقال *portoqāl*, and *portuallo*, respectively.

An interesting contrast is presented by the singular and plural forms, *Lenço*, Modern Portuguese *lenço*, ‘handkerchief’, and *Lenzoes*, Modern Portuguese *lenços* (s.), *lençóis* (pl.), ‘handkerchief/s, sheet/s.’ The singular entry features the modern spelling, though the word was still sometimes pronounced as a voiceless dental affricate /ts/; whereas the plural form displays a spelling akin to the dental affricate sound /ts/.

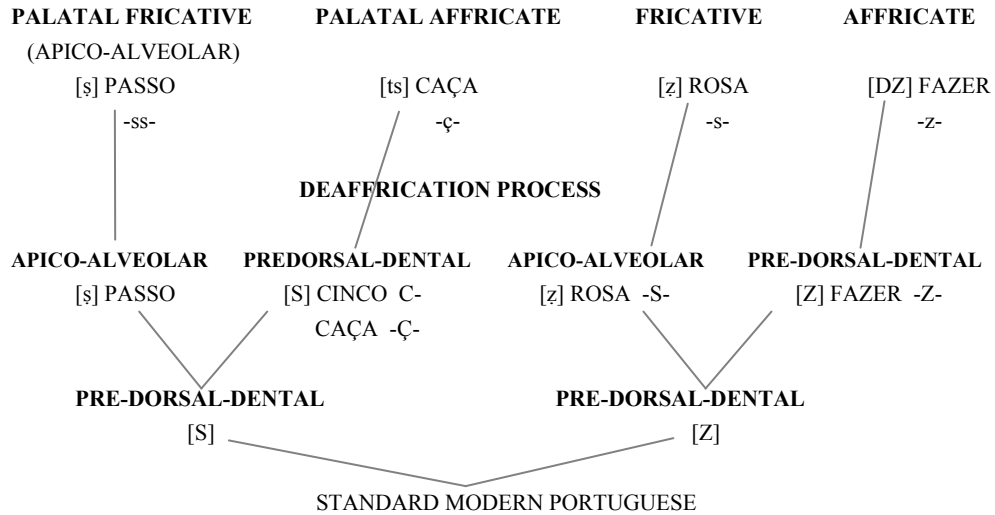
However, some words etymologically have two *ss*, like *passo*, ‘step’, which in the *Dicionário* are spelled like in Old and Early Modern Portuguese, e.g. *paço* /pásu/, thus being confused with *paço* /pásu/, ‘palace’, derived from Latin *Palatium*.¹² Other words come from Latin *-ps*, such as the entry *Alemdiço*, Modern Portuguese *além disso*, ‘moreover, besides’, where the spelling of *diço* for *disso* is not etymological.¹³ Another example could be the entry *Asoutar*, SMP *açoitar*, from Arabic verb سَأَى *sāʾi*, ‘to punish with a whip.’¹⁴ Obviously, the *s* did not derive from the abovementioned Latin/Vulgar Latin passage /ti/ > /tj/ > /tʃ/ > /s/. Classical Arabic had three fricative sounds: a voiceless alveolar fricative *s* (plain *s*) س /s/, (as in *sword*), a voiceless palatal fricative (post-alveolar) ش /ʃ/, (as in *shoe*), and a voiceless dental fricative (emphatic) ص /ʕ/, (as in *sit* or *psalm*). Classical Latin *s* /s/, instead, was almost always rendered as a voiceless retroflex fricative, also known as ‘cacuminal *s*’ /ʃ/.

Table 1 illustrates the evolution of the sibilants from Classical and Vulgar Latin to Standard Modern Portuguese. Table 2 shows the different ways the phoneme *S* is realized in Standard Modern Portuguese.

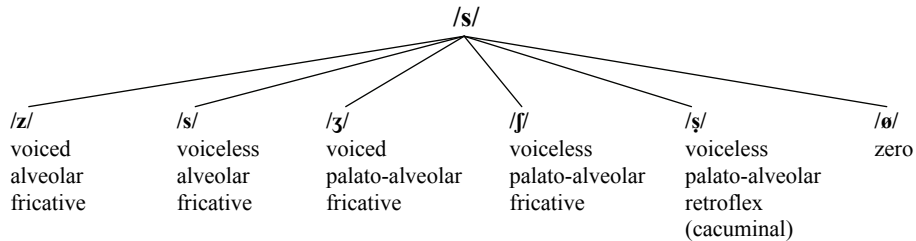
¹² The phonetic evolution of *palatium* was /palátíu/ > /palátju/ > /palátsu/ > /palásu/ > /pásu/.

¹³ Classical Latin *ipsu*, ‘the same’, became in Portuguese *isso*, ‘this/that (closer to the person to whom we are talking)’; hence, the passage from Classical Latin *-ps* > to Portuguese *-ss* (regressive assimilation).

¹⁴ The Arabic noun سَوْط *sawṭ*, gave the Portuguese word *açoite* or *açoute*.

Table 1: Origin and development of the Portuguese sibilants**Table 2:** Phoneme S and its allophonic realizations/variants

The alveolar fricative /s/ can be realized as:



Similar confusion between the voiceless post-alveolar (palatal) fricative /ʃ/ and the voiced alveolar fricative /z/ appears in the entries *Buxina*, Modern Portuguese *buzina* /buzina/, from Latin **bucina*, ‘trumpet’, and *Bruxa* /brúʃa/ Modern Portuguese *bruxa*, from Iberian Latin **bruxa*, (likely of pre-Roman origin) ‘witch’.¹⁵ The word *casere*, SMP *cárcere*, ‘dungeon’, also shows regressive assimilation of **-rs** /rs/ into **-s** /s/.

¹⁵ The entry *Forma de zappeos*, SMP *forma de chapéus*, ‘hat block’, illustrates the contemporary pronunciation of *chapéus*, ‘hats’: /zapéwʃ/, where **z** /z/ represents the voiced alveolar fricative instead of the voiceless post-alveolar (palatal) fricative /ʃ/ of SMP. The entry *Recouxar*, SMP *recusar*, ‘to refuse; to oppose’, has a non-etymological **x**, which stands for voiced alveolar fricative /z/. This kind of non-etymological spelling was common in Old and Early Modern Portuguese, and is not an innovation on the part of the authors/scribes of the *Dicionário* or their predecessors.

A partially related phenomenon is the utter inconsistency in representing the sibilants *x*, *ch*, and *s*.¹⁶ Simple *s* or double *ss* was either confused with *c* between the front vowels /i/ and /e/, or with the back vowels /u/ and /o/. In other words, it is the dento-alveolar fricative /s/, written with either the grapheme *ç* or the simple *s*. When written *ç*, it stands for the soft sound, i.e. *ça*, *ço*, *çu*, because we also encounter numerous cases of *çe* and *çi* where, according to today's rules, the presence of *ç* is completely superfluous.

In the case of the entry *Atraço*, SMP *atraso*, 'behind, back, delay', the cedilla is not etymological, since the noun derives from the analytical form: *ad* + *trans*, which originated the form *atrás*, 'behind', subsequently regularized as the verb *atrasar*, which in turn gave rise to the noun *atraso*. Other similar cases are *capatero*, SMP *sapateiro*, 'cobbler'; *capato*, SMP *sapato*, 'shoe'; *çapata demolher*, SMP *sapato de mulher*, 'lady's shoe'; *çebolina*, SMP *cebolinha*, 'small onion'; *çedo*, SMP *cedo*, 'early'; *çedro*, SMP *cedro*, 'cedar'; and *çegonha*, SMP *cegonha*, 'stork.' Though etymologically different, we should also point out that the word *Dar aço*, SMP *dar azo*, /dár ázu/, 'to give occasion', from the Provençal *aize*, 'comfort, opportunity', is also spelled with a cedilla. Furthermore, there is also the case of AS- vs. Modern and Early Modern Portuguese ASS-, derived from the assimilation of the Latin preposition *AD* + the verb, as in the entry: *Asaquartestemunhafalça*, (with the words all run together, SMP: *assacar testemunha falsa*), 'to bear false witness'.¹⁷

Likewise, the confusion between the spelling of *s* /s/ and *c* /s/, as in *abastaser*, against the modern *abastecer*, both representing the voiceless alveolar fricative /s/, is due to the fact that the latter is a result of the passage from Latin velar *ce* /ke/ and *ci* /ki/ to Vulgar Latin *ce* /se/ and *ci* /si/, thus both forms ending with voiceless alveolar fricative *s* /s/.¹⁸

The entry *Aguoa dos peis*, SMP *água dos pés*, 'water for the feet', is important because, besides the common spelling of the voiced velar occlusive (stop) /g/ with the semivowel bilabial glide /w/ as the trigraph *-guo*, it also shows the gradual passage of the Latin word *pedem*, from *pes*, *pedis*, 'foot', to SMP *pé*, singular, and *pés*, plural.¹⁹ In Standard, Modern Brazilian Portuguese, the pronunciation of *pés* is in fact /péis/, a feature found in the Portuguese regions south of Lisbon; hence, its later appearance in

¹⁶ During the evolution from Vulgar Latin to the Romance languages/dialects, throughout the former Roman Empire inconsistency was the norm in how these "newborn" sounds were written.

¹⁷ From the Latin *ad* + the Gothic *sakan* (to extract) = *assacar*, a clear case of regressive assimilation.

¹⁸ Apart from Sardinian, which maintained the Latin velar sounds /ke/ and /ki/, Italian and Romanian transformed the Latin velar sounds /ke/ and /ki/ into voiceless, palatal affricates /tʃ/.

¹⁹ Here's the evolution of the word *pedem* from Vulgar Latin to SMP: /péde/ > /pédə/ > /pée/ and /péo/ > /pé/.

Portuguese America. Similarly, the spelling of the entry-word *Arneis*, SMP *arnês*, ‘harness; armor’, betrays the allophonic pronunciation of absolute syllable final *-ês* /éj/ into /éij/ and /éf/, as in the case of *arnês* /árnéij/ and /árnéf/.

Ao presente, SMP *ao presente*, ‘nowadays’, *A pezo douro*, SMP *a peso de ouro* or *a peso de oiro*, ‘by weight of gold’, *camiza*, SMP *camisa*, ‘shirt’, and *Arazar amedida*, SMP *arrasar a medida*, ‘to level a measure’, are interesting entries, since the spelling of *prezente*, *pezo*, *camiza*, and *arazar* show how, in time, the voiceless alveolar fricative /s/ between vowels became the voiced alveolar fricative /z/: e.g. *presente* /prəséntə/ vs. /prəzéntə/, *peso* /pésu/ vs. /pézu/, *camiza* /kamísa/ vs. /kamíza/, and *arrasar* /αRásár/ vs. /αRázár/ in some of the Romance languages and dialects, as in the case of SMP, Standard Modern Italian (hereafter abbreviated SMI), and their respective dialects.²⁰ An opposite example is the entry *Belesa* /bélésα/, SMP *beleza* /bélézα/, ‘beauty’, where the *-s-* is not etymological.

Apagiuar, SMP *apaziguar*, ‘to pacify’, shows the confusion between the voiced palatal affricate /dʒ/, and the voiced alveolar fricative /z/, a typical pan-Romance phenomenon, also found in many central Italian dialects as well as Old and Early Modern Portuguese.

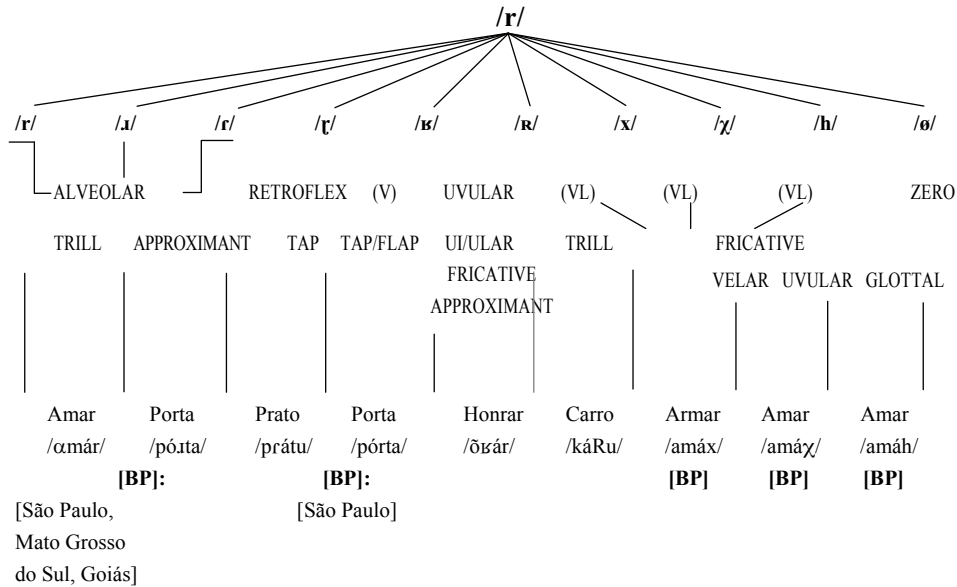
The words *Asoluer*, /αsəlvér/, *Asolto*, /αsóltu/, *Asoluição*, /αsəlvísaw/, and *Asolutamente*, /αsulutáméntə/, SMP *absolver* /αbsəlvér/ or *assolver* /αsəlvér/ *absolvido* /αbsəlvíðu/, *assolto* /αsúltu/, or *absoluto* /αbsúltu/, *absolvição* /αbsəlvəsaw/, and *absolutamente* /αbsəlutáméntə/, respectively, are great examples of semi-learned words vs. regressive assimilation: Latin *-bs* /bs/ => Romance languages, in this case Portuguese, *-ss* /s/. SMP *assolver* and *assolto* are thus popular forms that remained in the spoken language, whereas their semi-learned alternatives, *absolver*, *absolto* (archaic), and *absoluto*, (re)introduced later by scholars, succeeded in remaining in SMP.

The entry *côsuante demugica*, SMP *consoante de música*, ‘musical rhyme’, shows how the voiced alveolar fricative /z/ became in popular speech a voiced domed post-alveolar fricative /ʒ/, also known as voiced palato-alveolar fricative.

²⁰ Other examples in the *Dicionário* are *cozer dalphaiate*, SMP *coser*, *de alfaiate*, ‘to sew (of a tailor)’, *cozer de sapat<ei>ro*, SMP *coser*, *de sapateiro*, ‘to stitch (of a cobbler)’, and *cozidacosa*, SMP *coisa cosida*, ‘sewn’. The spelling confusion between *cozer* ‘to cook’ and *coser* ‘to sew’ still found today in Portuguese throughout the entire Lusophone world.

2.2 Portuguese alveolar trill

Table 3: Phoneme *r* and its allophonic realizations/variants



The spelling of Portuguese words with only one *r* does not necessarily denote the alveolar trill /r/. In Old and Early Modern Portuguese the alveolar trill /r/ and the uvular trill /R/ were spelled either with a single *r* or, especially in the case of the uvular trill /R/, written with upper case *R* or less commonly with two lower-case *rr*. Examples include *abariguado* for *abarriguado* ‘having a concubine;’ *aRepelar* for *arrepelar* ‘to pluck;’ *AcaRetar* for *acarretar* ‘to carry;’ *ARIBA* for *arriba*, *acima* ‘above; upwards;’ *ARoinar*, SMP *arruinar*, ‘to ruin;’ *careta*, SMP *carreta*, ‘cart, wagon;’ *caRunchosacousa*, SMP *coisa carunchosa*, ‘worm-eaten;’ *coReo*, SMP *correiro*, ‘courier, messenger;’ *coRer*, SMP *correr*, ‘to run;’ *coRetor*, SMP *corretor*, ‘broker;’ *coRetagem*, SMP *corretagem*, ‘brokerage;’ *Corida*, SMP *corrida*, ‘race;’ *conRomper*, SMP *corromper*, ‘to corrupt;’ *corroa*, SMP *coroa*, ‘crown;’ *corroar*, SMP *coroar*, ‘to crown;’ *corroniça*, SMP *crónica*, ‘chronicle;’ and *coronista*, SMP *cronista*, ‘chronicler.’

A different kind of confusion is evident in the word *Escuma*, SMP *escuma* (popular form, though recognized and accepted as valid) and *espuma* (semi-learned, thus closer to Latin/Vulgar Latin) ‘froth.’ In many languages, including Portuguese, a cluster involving voiceless alveolar fricative /s/ + voiceless bilabial stop /p/ is often converted into a cluster involving /s/ + voiceless velar stop /k/: /sp/ => /sk/.

The entry *Pessico*, SMP *pêssego*, ‘peach’, from the Latin analytical expression

malum persicum, ‘Persian apple’, shows the regressive assimilation of alveolar trill /r/ + voiceless alveolar fricative /s/: /-rs-/ => /-ss-/, a phenomenon already found in Vulgar Latin and, consequently, common to all Romance languages and dialects, though not all affected with the same intensity.²¹

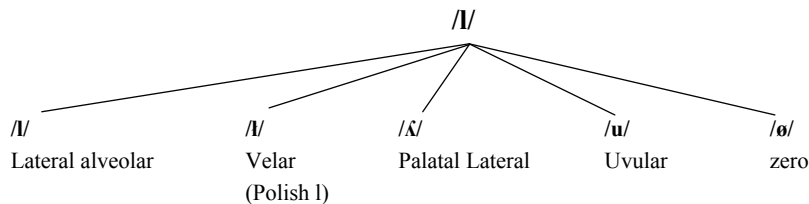
The forms *ATERuese*, *Ateruido*, *Ateruimento*, *Aterbuir*, *Aterbular*, and *Aterbulado*, SMP *atrever-se*, ‘to dare’, *atrevido*, ‘intrepid’, *atrevimento*, ‘impertinence’, *atribuir*, ‘to attribute’, *atribular*, ‘to afflict’, and *atribulado*, ‘troubled’, illustrate a typical Vulgar Latin/Romance languages feature, the consonantal cluster **tr** /tr/, i.e. voiceless alveolar occlusive /t/ + dental vibrant /r/ has as its allophonic variant the form **ter** /tər/; that is, it features an anaptyctic (or epenthetic) vowel, usually the voiceless central vowel *e* /ə/. Though not considered grammatically acceptable, such allophonic forms are still common throughout the Lusophone world.²²

The majuscule letter *R* also represents the multiple vibrant and/or the simple dento-alveolar /r/, and not necessarily the apical sound or the uvular sound /R/; in fact, the latter phenomenon is characteristic of standard Lisbon speech only starting from the 18th century. Examples include *acoRer-socoRer*, instead of *acorrer* / *socorrer*, ‘the help someone’, *caRo*, instead of *caro*, ‘dear’, *caRunchosa cousa*, instead of *coisa carunchosa*, ‘something corrupted’, *chea de Rio*, instead of *cheia de rio*, ‘flood, of river’, *costa Riba*, instead of *costa riba*, ‘river bank’, and *crecer o Rio*, instead of *creecer o rio*, ‘overflowing of the river.’

2.3 Laterals

Table 4: Evolution of the lateral alveolar /l/ from Vulgar Latin to Standard Modern Portuguese

The lateral alveolar /l/ can be realized as:



²¹ E.g. Latin *personam* and the Portuguese *pessoa* vs. the Italian, Romanian, and Spanish *persona*, and the French *personne*, ‘person’; Latin *ursum*, Spanish *oso*, Italian *orso*, and Portuguese *urso*, ‘bear’.

²² A similar situation occurs with the encounter of voiceless bilabial stop /p/ and dental vibrant /r/ *pr-*, which has as its allophonic form *per-*, as in the case of *preguiçoso* versus the popular form *perguiçoso*, ‘lazy’.

In the development from Vulgar Latin to Portuguese, lateral alveolar /l/ in syllable final and word final position acquired the following allophones: later alveolar /l/, velar /ʎ/, and the glide /w/. The examples *mal*, ‘bad’, and *falta*, ‘fault’, would thus have three allophones each, /mál/, /málʎ/, and /máw/; and /fálta/, /fáltaʎ/, and /fáwta/. The third allophone of each set is a feature found today in Standard Modern Brazilian Portuguese and in most Portuguese-based Creoles (e.g. Macanese Creole). The entry *caucar*, then, could be regarded as spelling the high back velar vowel /u/ in *caucar* /kəuzár/ (today spelled *causar*, ‘to cause’), or it could be perceived as spelling the glide /w/ in *caucar* /kəwsár/ (today spelled *calçar*, ‘to shoe’).²³

The spelling of the word *AuantaL*, SMP *avental* /avəntál/, ‘apron’, shows the confusion between the alpha /α/ and the schwa /ə/, and also attests to the fact that in syllable-final and word-final position l was velarized lateral /ʎ/.

Afreigido, SMP *afligido*, ‘afflicted’, *Afreixaõ*, SMP *aflição*, ‘affliction’, *frol*, SMP *flor*, ‘flower’, *Apracar*, SMP *aplar*, ‘to placate’, *Aprainar*, SMP *aplainar*, ‘to make smooth’, and *Bufaro*, SMP *búfalo*, ‘buffalo’, show the common trait of confusing the liquids l and r,²⁴ especially if preceded by a vowel, or by voiceless bilabial stop /p/, voiceless labio-dental fricative /f/, or voiceless velar stop /k/: /pl/ => /pr/; /fl/ => /fr/; /kl/ => /kr/.²⁵

²³ A similar case is found in the entry *cocoir*, SMP *concluir*, ‘to conclude’. Both forms come from the Latin *concludere*, the former is the popular development of the word, whereas the latter is a semi-learned derivation of the Latin etymon.

²⁴ As in the entries *conrusaõ*, SMP *conclusão*, ‘conclusion’; *conpreiçaõ*, SMP *compleição*, ‘temperament, disposition’; *concoir*, SMP *concluir*, ‘to conclude’; *corchete*, SMP *colchete*, ‘hook’; *cristel*, SMP *clister* and *cristel*, ‘enema’; *cramar*, SMP *clamar*, ‘to shout’; and *crara deouo*, SMP *clara de ovo*, ‘egg-white’. *Cramar* and *crara* are popular forms, whereas *clamar* and *clara* are semi-learned words that have not undergone the transformation process from Latin/Vulgar Latin to the Romance Languages, in this case Portuguese. Other examples are: *Frama*, SMP *chama* and *flama*, ‘flame’; *Freima*, SMP *fleima*, *fleuma*, and *flegma*, ‘phlegm, apathy’; and *Freimático le’opera’s*, SMP *fleimático*, *fleumático*, and *flegmático*, ‘phlegmatic’.

²⁵ Another example from the *Dicionário* is *de freça*, SMP *de flecha* and *de frecha*, ‘as an arrow’. Given their frequency, both forms have been considered acceptable by the Portuguese Language Academy, but Brazilian Portuguese recognizes only *flecha*. *Pregu’ar*, SMP *perguntar*, ‘to ask’, also shows the passage from *per-* to *pre-*, a common and prolific consonantal cluster in Vulgar Latin; hence, also in Iberian Romance: e.g. the popular Portuguese form *perguntar* and the Standard Spanish form *preguntar*. *Rasto*, SMP *rastro*, ‘trace’, highlights the change of the biconsonantal cluster *-st-* into the triconsonantal cluster *-str-*, a common feature in Romance languages.

2.4 Arabic loanwords

Alcasus, SMP *alcaçuz*, ‘licorice’, also known as *raiz-doce* and *regoliz* comes from the Arabic expression: عَرْقُ السُّوسِ, ‘*irqu al-sūsī*, ‘licorice root’, and the latter form also occurs as a separate entry in the *Dicionário*.

Alcunha, ‘nickname’, is yet another example of semantic change over time. When the *Dicionário* was composed, *alcunha* still meant ‘family name’, and thus was a synonym for *apelido* and *sobrenome*. Later, *alcunha* was used solely to mean nickname, whereas *apelido* and *sobrenome* denoted ‘family name’ or ‘last name.’ In Standard Modern Brazilian Portuguese, ‘nickname’ is *apelido* and ‘last name’ is *sobrenome*. *Alcunha* comes from the Arabic الكُنْيَة, *al-kunyah*, ‘kunya’, ‘last name, nickname;’ this is a title composed of أَبُو *abū*, ‘father’, or أُمُّ *umm*, ‘mother’, followed by the name of the son or of the daughter. As we can see, then, the confusion arises from the Arabic, since in the West it is not customary to refer to someone as ‘father of’ or ‘mother of.’ In Arabic the *kunya* thus meant both last name and nickname.²⁶

Other words found in the *Dicionário* that are of Arabic origin include *aletria*, from the form الإِطْرِيَّة *al-iṭriyyah*, ‘(fresh and tender) vermicelli;’ *alphaça*, SMP *alface*, from Arabic الخَسَّة *al-xasah*, ‘lettuce;’ *alphayate*, SMP *alfaiate*, from Arabic الْخَيْط *al-xayyāt*, ‘tailor;’ *Alphaya*, SMP *alfaia*, from Arabic الْحِلْيَة *al-hilyah*, ‘jewel, ornament, decoration’, though in Portuguese it also meant ‘luggage, furniture, and/or utensils;’ *Alphamdigua*, SMP *alfândega*, from Arabic الْفُنْدُوق *al-fundūq*, ‘hotel, customhouse’, most likely from Greek *pandokéion*; and *Aferas*, SMP *alferes*, from Arabic الْفَارِس *al-fāris*, ‘horseman, shield bearer;’ *Alfenete*, SMP *alfinete*, from Arabic الْخِلَال *al-xilāl*, ‘pin, brooch’, though the original meaning is ‘spit, skewer;’ *Alforge*, from Arabic الْخُرْج *al-xurj*, ‘sack, backpack, saddlebag;’ *Alforia*, SMP *alforria*, from Arabic الْحُرِّيَّة *al-hurriyyah* ‘condition of a free person, freedom;’ *Alguarismo*, SMP *algarismo*, from Arabic الْخَوَارِزْمِي *al-Xuwārizmī*, ‘last name of the mathematician Muhammad ibn Mūsah (c. 976);’ *Algema*, from Arabic الْجَمَاعَة *al-jamā’ah* ‘handcuff; shackle’, though it also meant/means ‘multitude, group, community;’ *Algudaõ*, SMP *algodão*, from Arabic الْقُطْن *al-quṭn*, ‘cotton;’ *Alguos*, SMP *algoz*, from Arabic الْغَزَّ *al-γuzz*, ‘executioner’, from Turkish *guzz*, name of the tribe that provided executioners to most of the Muslim Empire; and *Alyub*, SMP *aljuba*, from Arabic الْجُبَّة *al-jubbah*, ‘long dress/cloak, open in front, with a collar and long sleeves, usually worn by men.’

As for the entry *Almadia*, ‘canoe, small boat’, it is noteworthy that an Arabic etymon, from the word الْمَعْدِيَّة *al-ma’diyyah*, ‘raft’, soon came to be applied to all kinds of African and Asian boats, provided that they were long and narrow, resembling a canoe.

²⁶ See, for example, the name of the first Caliph, Abū Bakr (573-634): أَبُو بَكْر, and the honorific title of Mecca, ‘the mother of all cities’, *Umm al-Qurah*, أُمُّ الْقُرَى.

The words *Almagra*, SMP *almagra*, *almagre*, and/or *terra vermelha*, ‘red ochre’, and *Almagrar*, SMP *almagrar*, *tingir com almagre*, or *assinalar*, ‘to color with red ochre, to signalize’, are based on Arabic المَغْرَة *al-mayrah*, ‘clay, red ochre’, and they are used to describe the red color used by the Chinese in their clothes and other types of fabric.

Almagem darmas, SMP *armazém de armas*, ‘armory’, and *Almagem dazeite*, SMP *armazém de azeite*, ‘oil-store’, display interesting linguistic features, including the confusion of dental lateral /l/ with vibrant dental /r/: **al-** vs. **ar-**, as well as confusion of the voiced post-alveolar (palatal) fricative /j/ with voiced alveolar fricative /z/: **-ge** vs. **ze**.²⁷ From a semantic point of view, given that in Portuguese *armazém* could be used to refer to any kind of ‘warehouse’, it was thus necessary to clarify the type of warehouse, in this case: *de armas* or *de azeite*.²⁸

The word *Almarja*, SMP *almarge* or, less commonly, *almargem*, refers to ‘land dedicated to pasture.’ Also in this case, the word comes from Arabic المَرْج *al-marj*, ‘prairie.’

ALMesica, SMP *almexia* or *almécega*, ‘gum mastic, adhesive’, also known as *mástique*, is a substance used as a component in paint/varnish and pharmaceutical products; it comes from the Greek *mastikhe*, via the Moroccan Arabic form المَصْنَكِي *al-maṣṭakah*, from Classical Arabic المَصْطَكَة *al-maṣṭakah*.

Alceyra is rendered into SMP as *alcouceira* or *alcoiceira*, though most Portuguese-speakers would not recognize it today. In its stead, they would use the periphrasis, ‘*alguém que frequenta alcouces*’, i.e. ‘someone who frequents a whorehouse.’ However, *alcouces* is used only rarely, and is commonly replaced by its synonyms *lupanar* or *bordel*. *Alcouce* comes from Colloquial Arabic القُوس *al-qūs*, from Classical Arabic القَوْس *al-qaus*, i.e. ‘hermit’s cell, hunter’s cabin.’

The entry form *ARefeno*, SMP, *refém*, ‘hostage’, from Spoken Arabic الرِّهْن *al-rihan*, a derivative of Classical Arabic الرِّهْن *al-rahn*, ‘pawn/token/proof’, shows the regularized, popular ending *-no*, rather than the etymological nasal ending *-em*, a common phenomenon in Old and Early Modern Portuguese.

Aros, SMP *arroz*, ‘rice’, shows the non-etymological spelling of Arabic الرِّز *al-ruz*, ‘rice’, with a voiced plain alveolar fricative /z/, instead of its voiceless counterpart.

As for the entry *Astrologo*, we should point out that in Old and early Modern Portuguese the word meant both *astrólogo* and *astrónomo*, ‘astrologer’ and ‘astronomer.’ Until the dawn of the nineteenth century, Astronomy and Astrology were closely interconnected and it was nearly impossible to tell them apart. In Arabic, عِلْمُ الْأَحْكَامِ التَّجْوِمِ

²⁷ Another example is the entry *Biremezela*, SMP *beringela*, from the Persian بادنجان *bādenjān*, via the Arabic بَادِنْجَان *bādinjāna*, also spelled بَانْجَانَة ‘eggplant’.

²⁸ In Arabic the word *armazém* المَخْزَن *al-maxzan*, means ‘deposit, store, pantry, emporium, pharmacy, drugstore’; hence, it is necessary to specify the kind of items being stored.

ʿIlm al-Aḥkām al-Nujūm is ‘the science of the decrees of the stars’, also called *عِلْمُ الْأَحْكَامِ* *ʿIlm al-Aḥkām* (science of the decrees).²⁹ The *أَحْكَامُ* *Aḥkām* are ‘the opinions’, ‘the decisions’, or ‘the responses’ given by the stars.³⁰ Thus *عِلْمُ الصَّنَاعَةِ النُّجُومِ* *ʿIlm al-Ṣināʿah al-Nujūm* refers both to Astronomy and Astrology, which were considered two aspects of the same discipline. In Medieval Latin translations the literal meaning of *أَحْكَامُ* *Aḥkām* (opinions) influenced the future in the West of both Astronomy and Astrology, creating a division between the original science, the *Scientia Iudiciorum Stellarum*—which later became Astrology—and the *Astrologia Quadrivialis*, i.e. the *Astronomia Doctrinalis*, or Astronomy as such.³¹ In fact, in Arabic only one word designates the astronomer/astrologer, *مُنَاجِمٌ* *munajjim*.³² Only in the nineteenth century, mainly under European influence, did the two disciplines come to be distinguished. From then on the *مُنَاجِمٌ* *munajjim* was the ‘astrologer’ and the *فَلَائِكِي* *falakī* was the ‘astronomer’.³³

The syncopated form *Atamor*, SMP *tambor*, in Old and Early Modern Portuguese had the epenthetic form *atambor*, ‘drum’, from the Persian *طبر* *Ṭabir*, via the Arabic *الطَّنْبُور* *al-Ṭanbūr*.

The nouns *Buzia*, SMP *bugio* and *macaco*, ‘monkey’ and *Bugio*, SMP *búzio*, ‘shell, conch’, should not be confused. Spoken Arabic *بُدْجِيَّة* *budjīyah*, Classical Arabic *بُدْجَاي* *Budjāyah*, from the Algerian island town of Béjaïa, from where most African goods—including candles (as in the French word for candle *bougie*) and monkeys—were exported, gave rise to the Portuguese word *bugio*, whereas Latin *bucinu*, ‘trumpet, shell’, became the Portuguese noun *búzio*. The *Dicionário* has *Buzia* rather than *bugio* ‘monkey’, this is because by analogy the Portuguese considered the ending-*a* to be feminine; hence, the matching masculine form *bugio* (also spelled *bogio*, *bogyo*, and *bugyo*) was created.

The word *Enxadres*, SMP *xadrez*, ‘chess’, is a loanword from Sanskrit *shaturanga*, ‘something composed of four members’, via Persian *شَطْرَنْج* *ṣaṭranj* and later Arabic *شَطْرَنْج* *ṣiṭranj*, though in China the game acquired different rules.

Girgilim, SMP *gergelim* and *sésamo*, ‘sesame’, is a clear loanword from Arabic *juljulān* *جُلْجُلَان* or *جُلْجَلَان* *jiljilān*; whereas *sésamo* is its Greek counterpart (*sesámon*, via the Latin *sesamu*).

²⁹ Also known as *الصَّنَاعَةُ* *al-Ṣināʿa*, or rather, ‘the art’. Cf. Nallino (1944:5.1-87), Levi (2005:19-31), Schacht & Bosworth (1979). Other possible synonyms: *الْقَضَايَا* *al-Qaḍāyā*, *النَّجَمَات* *al-Najamāh*, and *النَّجْمَةُ* *al-Nijamah*.

³⁰ Also known as *عِلْمُ التَّنْجِيمِ* *ʿIlm al-Tanjīm*, or rather, ‘the art of determining something in the subordination of the revolution of the stars’.

³¹ Levi (2013:1-8).

³² Other possible synonyms: *نَجَامٌ* *Najjām* and *أَحْكَامٌ* *Aḥkāmī*.

³³ Nallino (1944:5.1-2, 42), Cortés (1996), Levi (2005:19-31).

The expression *Massaõ da nafica*, SMP *macieira-de-anáfega*, ‘jujube’ is followed by the Old and Early Italian word *giogiole*, SMI, *Giuggiolo*, from Greek *zizyphon*, via Latin *zizyphum*. Yet Portuguese *nafica* is an apocopated form of *anáfega*, ‘small apple tree that produces sweet fruits’, from Arabic نَبَقَة *nabiqah*, ‘small prune’ or ‘fruit from the lotus tree.’

Açelgua – bieta is SMP *acelga*, *celga*, or *beterraba*, ‘Swiss chard, leap beet’, or ‘garden beet.’ The first two words derive from Arabic السَّلَق *al-silqa*, whereas *beterraba* is a clear derivation from the Latin words *beta*, ‘beet’, + *raba*, ‘turnip.’

2.5 Notes on unusual and curious cases

The adjective *abariguado*, SMP *abarregado* or rather, *aquele que se abarregou/amancebou*, i.e. ‘he who has taken a concubine’, is followed by two Italian adjectives, *inamicato* and *concupinario*, the former already in disuse at that time; hence, the need to provide Italian readers with an alternative form, should they not any longer be familiar with the first word. The Portuguese form *abariguado* made its first appearance in the fifteenth century, likely being a derived form of *abarregar*, which in its turn came from the noun *barregã*, ‘concubine.’ The word is of uncertain origin: it is either Arabic—thirteenth century Iberian Arabic *barrakān*, بَرَكَّان (*barrakān*, ‘woolen cloth’, a certain type of cloth made of goat’s/camel’s skin—or Gothic, **barika*, then passing on to Latin as **baricanem*, ‘a young free man (*baro*; hence, the Portuguese *barão*, i.e. ‘baron’) in physical shape to take arms against the enemy.’

Abobora, SMP *abóbora*, ‘pumpkin’, is translated into Italian as *cozza*, a clear central and southern Italian form of *coccia*, ‘head’, from the Greek *kochilias*, through the Latin *cochleam*, ‘snail.’ The metaphor for ‘pumpkin’ as a ‘(big) head’ is evident. Standard Modern Italian for pumpkin is *zucca*.

Abocanhar, ‘to bite’, accompanied by the Latin *morsico*, i.e. ‘I gnaw’, is followed by the Italian verb *morsicare*. Also in this case, the choice of the Late Latin etymon *morsicare*—derived from *morsus*, past participle of *mordere*, ‘to bite’—indicates a regional preference, since in most northern Italian varieties, as in SMI, the verb choice would have been *mordere*, direct descendent of Latin *mordere*.

The entry *Acolher*, ‘to receive, to accept, to welcome someone’, is translated into Italian as *andarssini*, SMI *andarsene*, i.e. ‘to leave a place.’ It is noteworthy that the Italian entry does not match the Portuguese form *Acolher* or the Chinese entry. This lack of correspondence between Portuguese and Italian, as well as Portuguese and Chinese may be because compilers of the *Dicionário* did not fully understand the Chinese words, or in the case of Portuguese, perhaps they fell into the ‘false cognate trap.’ That is, while both Romance languages share the same word origin, its meaning

changed as it evolved from Vulgar Latin to Italian and Portuguese respectively. Actually, *andarsene* connotes the idea of someone leaving a place, especially a house, as in the sentence: *me ne vado*, or rather, ‘I am leaving [here/from this place].’ Perhaps there was a misunderstanding of the true meaning of the word in Portuguese and/or in Chinese. Strangely, the Italian cognate form of *acolher* is *accogliere*. One wonders what happened, one might expect that either Father Ricci or Father Ruggieri would have noticed the resemblance in sound and meaning of the two Romance words, both derived from Latin *ad* + *colligere*, i.e. ‘to gather together.’³⁴

The entry *Acompanhar de casa p<ar>a` afora*, SMP *acompanhar de casa para fora*, ‘to escort out of the house’, translated a concept foreign to European thinking, but necessary for the European missionaries living and working in Macau and elsewhere in the Chinese-speaking world. Its Italian counterpart is given as *accompagnar` di casa p<er> fuora*, SMI *accompagnare da casa a fuori casa*. Besides the obvious awkwardness of the expression in Portuguese and Italian, we may note that the adverb *fuora*, from the Latin *foris*, *fora*. *Fora*, *fori*, *fore*, and/or *fuora* were and still are popular old forms of SMI *fuori*. These adverbs are particularly found in central Italy, as in the case of *fuora* and *fora*, as well as the southern part of the Italian Peninsula. In most souther Italian and Sicilian dialects the preferred form is *fora*.

The word *Adoração*, SMP *adoração*, translates into ‘worship’ or ‘religious service’, applicable to all religions, not only Catholicism, but also Protestantism, Islam, Judaism, Buddhism, Hinduism, and other religions. It is still used today when referring to a non-Catholic service, usually preceded by *culto de adoração*, literally ‘service of adoration/worship.’ However, *culto*, ‘religious service’ is not to be confused with *seita religiosa*, ‘cult’ in the sense of ‘religious sect.’

The verb *Apeçonhentar*, SMP *apeçonhar*, *empeçonhar*, ‘to poison’, and the noun *Peçonha*, SMP *peçonha*, *veneno*, ‘poison’ derive from the Vulgar Latin noun *potionea*, in its turn a derivative of *potione*, ‘poisoned drink.’ In Old and Early Modern Portuguese, *peçonha* and *apeçonhar/empeçonhar* were used more often than the current forms *veneno/envenenar*. Interestingly, *peçonha* occurs today in Portuguese-based Creoles throughout the world, from Cape Verde to Macau.

The word *Artelho*, SMP *artelho* and *tornozelo*, ‘ankle’, from the Latin *articulu*, ‘articulation’, is not followed by its synonym *tornozelo*, diminutive form of Latin *tornu*, via the Greek *tórnos*, ‘a device that turns around.’ This tells us that although both forms were used Old and Early Modern Portuguese, the compilers of the *Dicionário* felt that their readers would understand the entry as it was, thus they found it unnecessary to include its synonym. Probably Father Ricci and Father Ruggieri were not familiar with

³⁴ *Colligere*, in its turn, comes from: *cum* + *legere*, or rather, ‘to gather together something’.

it, given that in Italian ‘ankle’ is translated as *caviglia*, from Vulgar Latin *claviclam*, ‘small key’, a diminutive form of Classical Latin *clavis*, ‘key.’ Cardoso’s dictionary entry, which also gives one form, *Artelho*, may have influenced their choice.

The entries composed of the infinitive form of the verb *Auer*, SMP *haver*, ‘to have’, show that in Old and Early Modern Portuguese the auxiliary verbs *ter* and *haver*, from Latin *tenere*, ‘to have/hold in the hand’, and *habere*, ‘to have’, respectively, were still used interchangeably, the former eventually gaining ground over the latter: *Auer cor deber*, SMP *ter cor de beber*, ‘to have a desire to drink’, *Auer cor de comer*, SMP *ter cor de comer*, ‘to have a desire to eat’, *Auer cor defazercamaras*, SMP *ter cor de fazer câmaras*, ‘to feel a need to pass a motion’, *Auer cor de dormir*, SMP *ter cor de dormir*, ‘to have a desire to sleep’, *Auer cor de urinar*, SMP *ter cor de urinar*, ‘to have a need to urinate’, *Auer medo*, SMP *ter medo*, ‘to be afraid’, *Auer mister*, SMP *ter mister*, ‘to need’, *Auer fome*, Modern Portuguese *ter fome*, ‘to be hungry’, *Auer sede*, Modern Portuguese *ter sede*, ‘to be thirsty’, *Auer frio*, Modern Portuguese *ter frio*, ‘to be cold’, *Auer Riqueza*, SMP *ter riqueza*, ‘to be rich’, *Auer calma*, SMP *ter calma*, ‘to be in the heat of the day’, *Auer cor de dormir*, SMP *ter cor de dormir*, ‘to have a desire to sleep’, *Auer cor de pelejar*, SMP *ter cor de pelejar*, ‘to have a desire to fight’, *Auer emueya*, SMP *ter inveja*, ‘to envy’, and *Auer myã*, SMP *ter misericórdia*, ‘to have mercy.’³⁵

Azimo, SMP *ázimo*, ‘unleavened bread, matzo’, from Vulgar Latin *azmon*, ‘unleavened bread’, is an obvious loan-word from the Greek *ázumos*. The Hebrew word is *מַצּוֹת*, ‘matzo.’³⁶ It is interesting to see that the authors saw fit to include this in the list of words for missionaries to learn and use in China.

Barer, Modern Portuguese *varrer*, ‘to sweep’, *Basoura*, SMP *vassoura*, ‘broom’, and *Bespora*, SMP *véspera*, ‘evening’, show the allophonic quality of Latin *b*: voiced bilabial plosive /b/ and voiced labio-dental fricative /v/.³⁷ Over time, Latin opted for only one phoneme: the voiced bilabial stop /b/, though keeping the spelling faithful to its etymology. The confusion between /b/ and /v/ is thus found in many parts of the *România* (Roman Empire), from northern Portugal and Spain to areas of central and

³⁵ At the same time, though, Early Modern Portuguese began producing an alternative to the expression: *ter* + noun/adjective: *estar*, to be temporarily, + preposition *com* ‘with’ + noun/adjective, as in the expressions: *estou com fome*, *estou com frio*, *estou com sono*, vs. *tenho fome* ‘I’m hungry’, *tenho frio* ‘I’m cold’, and *tenho sono* ‘I’m sleepy’. Standard, Modern Brazilian Portuguese and Azorean Portuguese in fact prefer this outcome to the *ter* + noun/adjective form. Lusophone African and Asian variants for the most part also opt for the alternate version of *estar* + preposition *com* + noun/adjective.

³⁶ In Old Portuguese, as well as Judeo-Portuguese, the word was also pronounced and spelled *azmo*.

³⁷ Between vowels the voiced bilabial plosive /b/ became the voiced bilabial fricative /β/. This feature is not found today in Modern, Standard Brazilian Portuguese.

southern Italy.³⁸

Broslar is the Old and Early Modern Portuguese form of SMP *bordar*,³⁹ ‘to embroider’, from Germanic **bruzdōn*, via Latin **brozdare*. In time, the difficult-to-pronounce consonantal cluster **-sd-** (voiceless alveolar fricative /s/ + voiced alveolar stop /d/) gave rise to the consonantal cluster **-sl-**; hence, the entry *Broslar*. At the same time, another variant appeared: *brorlar*, in which the newly formed cluster **-sl-** was replaced by the more common Romance language-friendly consonantal cluster **-rl-** *brorlar* which, through regressive assimilation, became *brollar/brolar*. Vowel harmony, that is, metaphony, changed *brolar* into *borlar* and, through dissimilation between l /l/ => d /d/, *borlar* became present-day *bordar*.

The entry *cagualume*, SMP *caga-lume*, *vaga-lume*, and *pirilampo* ‘firefly’, is a great example of folk etymology. *Caga-lume*, literally ‘defecate light’, and *vaga-lume*, literally ‘wander-light’, are popular words that entered the Portuguese language through the association of the light and its location in the insect’s body or how this light wanders in the air.⁴⁰ Yet, the word that entered Portuguese via Greek *pirilampis* was *Pirilampo*, and it is thus considered by many as more learned and sophisticated than its popular synonyms.

The entries *conto o stória*, SMP *conto* ou *história*, ‘tale or story’, *Estoria*, SMP *história*, and *Estoriador*, SMP *historiador*, are interesting because they show that in Old and Early Modern Portuguese the word *stória*, also spelled *estoria*, *estória*, or *estorya*, meant ‘story’ or ‘popular/traditional story’, as opposed to *história*, ‘history’ or ‘historical account.’⁴¹ Interestingly, this dichotomy was recently resumed to distinguish ‘history’ and ‘story’, since SMP uses only *história* for both. Brazilian and the Lusophone African countries were the first nations to accept this distinction, whereas Portugal has only recently begun to accept it. It is still not recognized as an official

³⁸ Spanish, regardless of its standard, is the only Romance language that opted for the voiced bilabial plosive /b/, though maintaining the spelling faithful to the Latin etymology: e.g., *vida* /bíða/. This feature is also found in northern Portuguese dialects and in some sothern Italian dialects, as in the case of Neapolitan: e.g. *bulite* vs. *vulite*, ‘you (pl.) want’. Other interesting examples found in the *Dicionário* are: *Bosayar*, SMP *vozear*, ‘to shout’, *Bolearconcorda*, SMP *voltear em uma corda*, ‘to walk a tight-rope’, *Boleador decorda*, SMP *volteador de corda*, ‘tight-rope walker’, and *Boluer* = *volver* = ‘to turn round’.

³⁹ The earliest written records of *bordar* and its derivatives date back to the sixteenth century, less than twenty years prior to the composition of the *Dicionário*.

⁴⁰ Other common synonyms based on the same concept are: *lumi-cu* (fire-buttocks), *luze-cu* (light-buttocks), *abre-cu* (open-buttocks), *luze-luze* (light-light), *arancu*, *arencu*, and/or *arincu* (of obscure etymological origin).

⁴¹ The first recorded instances of the word *estória* occur in thirteenth century documents, where it meant either ‘story’ or ‘history’.

word in European Portuguese, although it is widely used and has been adopted particularly by the media.

Culturally of note are the entries *cristaõ uelho*, SMP *cristão velho*, ‘an old Christian, i.e. a Christian by many generations [in Portugal, Spain, Italy, and France]’, and *cristaõ nouo*, SMP *cristão novo*, ‘a convert’, and *cristão-novo*, ‘a new-Christian, a crypto-Jew, a convert from Judaism [from 1496 onwards: in Europe, the Ottoman Empire (including North Africa), Portuguese India, and the Americas].’⁴² There were many New-Christians in the Portuguese Overseas Empire, particularly in Brazil, the Caribbean area, and the *Estado da Índia*, the latter embracing the vast geographical area from present-day Mozambique and India to Malacca, East Timor, and Macau.

The entry *Debadoura*, SMP *de baderna* or *chiola*, ‘rolled up (of the canvas roof or sides of a carriage); ox cart’, is followed by its Italian equivalent, *ghinolo*, SMI *calce*, ‘lime, made of dried lime.’ The modern Portuguese word *chiola*, is a regional term denoting a ‘very old ox cart’, whereas *baderna* is a nautical term, of possible French, Provençal, or Italian origin. It refers to a thin cord used to unite other cords to tighten shrouds. The Old and Early Modern Italian word *ghinolo*, instead, is usually rendered in SMI as *calce*, ‘lime’, or ‘something made of dried lime.’ The two Chinese entries that accompany the Portuguese and the Italian translations support both definitions: ‘to roll up, grasp’, and ‘ox cart.’

The verbs *Desenfeitiçar*, SMP *desenfeitiçar*, ‘to disenchant, to free of a spell’, *Enfeitiçar*, SMP *enfeitiçar*, ‘to bewitch’, the adjective/past participle *Enfeitizado*, SMP *enfeitizado*, ‘bewitched’, and the nouns *Feitiço*, SMP *feitiço*, ‘spell’, and *Feitiçeiro*, SMP *feiticeiro*, ‘sorcerer’, all based on the Latin adjective *facticius*, ‘artificial’, soon came to connote ideas of *bruxaria*, ‘sorcery’, connected to non-European areas with which the Portuguese had contact during the Age of Discoveries, including the West and East African coasts, Brazil, and the *Estado da Índia* (from present-day Mozambique to Macau and East Timor). From Portuguese *feitiço* came Spanish *hechizo*, French *fétiche*, and English *fetish*, though in English the meaning came to be significantly transformed. The word *enxacoco*, SMP *enxacoco*, ‘speaking a foreign language badly, mixing up words from one’s native language, code-mixing’, is most likely of Angolan origin, from the Umbundo *sakoka*, with the original meaning of ‘hesitating when speaking one’s language’, i.e. ‘stammering.’

The nouns *Figo de bangal*, SMP *figo-de-bengala*, ‘fig’, *Figo da Índia*, SMP *figo-da-índia*, ‘banana’, and *Figo passado*, SMP *figo passado*, ‘dried fig, dried banana’, are

⁴² In Hebrew, as well as in Judeo-Portuguese, Judeo-Catalan, and Judeo-Spanish, the term אנוסים *Anūsīm* (‘those who faked the conversion because they were forced to do so’) was and is still preferred today because of the offensive connotation of the word *Marrano* (pig). Levi (2002:29 n. 9).

excellent examples of culture-specific adaptations to the local milieu. The Portuguese word *figo*, ‘fig’, in Macau came to mean ‘banana’ or ‘any kind of fruit’, as in the following *Macaísta* (Macanese Creole) expressions: *figo-chêroso* /fĩgu tʃeróso/, ‘banana with a yellow peel dotted with brown;’ *figo-horta* /fĩgu órta/, ‘shorter and fatter than *figo-chêroso*;’ *figo-vilám* /fĩgu vilán/ ‘small, inferior quality banana’, also known as *coolie banana*; *figo-capote* /fĩgu kapóti/, ‘sapota;’ *figo-cáqui* /fĩgu kaki/, is the kaki; and the *figo de Portugal* /fĩgu di portugal/ is also a ‘fig.’⁴³

Finally, the most frequently recurring characteristic in the *Dicionário Português-Chinês* is the graphic representation of the voiced velar occlusive /g/ followed by either the back vowels /u/ and /o/ or the central vowel /a/ with the letter u, today superfluous. As always, exceptions are not hard to find: *aguoa*, instead of *água*, ‘water’, *aguora*, instead of *agora*, ‘now’, *agua de frol*, instead of *água de flor*, ‘flower water’, *agoa de passo*, instead of *água de poço*, ‘well water’, *aguoa de fonte*, instead of *água de fonte*, ‘fountain water’, *acabar co<m> roguos*, instead of *acabar com rogos*, ‘to stop crying’, and *achagua*, instead of *chaga*, ‘wound.’

3. Conclusions

The entries presented and analyzed in the sections above were chosen to highlight major sound and lexical changes that have occurred in Portuguese and Italian. Of all the Portuguese and Italian entries of the *Dicionário*, I believe that the ones selected best illustrate the evolution from Latin/Vulgar Latin, Greek, and Arabic, for example, to Modern Portuguese and Italian. Thus the *Dicionário* is an invaluable instrument for analyzing the semantic and linguistic evolution of Portuguese and Italian particularly during the early Modern Era.

⁴³ Glosses follow Fernandes & Baxter (2004:73).

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利瑪竇、羅明堅《葡漢辭典》： 從語言學與文字學探討葡萄牙與義大利語條目

雷祖善

喬治華盛頓大學

《葡漢辭典》由耶穌會傳教士利瑪竇 (1552-1610) 與羅明堅 (1543-1607) 於 1583-1588 年間編纂，是首部詳實成熟的葡漢辭典，用以幫助歐洲傳教士學習漢語。其中所列條目，反映出語言（漢語、葡萄牙語及少數義大利語）、文化、信仰（即天主教與儒學思想）交流。本文比較了一系列的條目，以語言學和文字學來檢視這些條目，反映了哪些葡萄牙語和義大利語的變遷。因此，本文不多加討論與這些詞彙對應的漢語條目。

關鍵詞：辭典，漢語，義大利語，耶穌會，傳教士，葡萄牙語

Two Competing Interpretations: *Cóng* 从 or *Bì* 比 in Oracle-Bone Inscriptions*

Ken-ichi Takashima
University of British Columbia

It is common for most scholars in the field of oracle-bone inscriptions to transcribe 𠄎, 𠄎, 𠄎, 𠄎, 𠄎, and 𠄎 as *bǐ* 比 ‘to compare’ or *bì* 比 ‘to be side by side’. Previously, the *cóng* 从 ‘to follow’ interpretation was common. This paper discusses various problems in the former interpretation from the vantage points of palaeography and philology, arguing that the old *cóng* interpretation still has much value.

Key words: *bì/bǐ* 比, *cóng* 从, graphic composition, oracle bone inscriptions, Chinese paleography

Ever since Lín Yún 林澐 published “Jiǎgǔwén zhōng de Shāngdài fāngguó liánméng” 甲骨文中的商代方國聯盟,¹ most scholars have adopted his transcription of the following two types of graphs as *bì/bǐ* 比:²

Type A: 𠄎 𠄎 𠄎 (including their mirror images like 𠄎, 𠄎, 𠄎)
Type B: 𠄎 𠄎 𠄎 (including their mirror images like 𠄎, 𠄎, 𠄎)

Type A graphs may be characterized as having two human figures lined up or one following another, their arms extending downwards. Type B graphs are similar to Type A graphs except their “bodies” are curvy with their “arms” bent at the elbow and the

* I consider myself very fortunate to have known South Coblin for over 40 years since we were graduate students. This paper is dedicated to him on the occasion of his 70th birthday. An earlier version of this paper was presented at the workshop, Shang Archeology: Achievements, Directions & Dead-end, Center for Chinese Studies, UC Berkeley, held in honor of David Keightley in celebration of his 80th *sui*, 1 October, 2011. I have reflected on the questions and comments I received in the workshop in the penultimate version. Based also on the useful comments made by two anonymous reviewers, I have made a further revision. I take full responsibility for some specific suggestions I did not follow.

¹ Lín (1981:67-92, 1998:69-84).

² The *bǐ* reading is associated with a meaning “compare,” though *bì* in the sense of “to be side by side” is now commonly read *bǐ* (Pulleyblank 1991:33).

hands going upwards (but see below). Lín Yún suggested that both Type A and Type B graphs represent the word *bì* 比 meaning “closely unite, form a close alliance” (親密聯合). It is possible that Lín Yún derived such a meaning from the “to be side by side” meaning, though he says nothing about the *qùshēng* reading with which the meaning is historically associated. While many have accepted his transcription of the graphs as 比, to say nothing about its reading, a few have found that the suggested meaning does not work that well.³ What I would like to do in this paper is to test if Lín Yún’s interpretation can pass logical, palaeographical, and philological tests. As will become clear, it cannot be said to pass such tests in all cases.

At the root of the problem of distinguishing *bì* 比 from *cóng* 从 or vice versa lies the question of a strict graphic distinction between *bǐ* 匕 ‘spoon’ and *rén* 人 ‘human being’. The 匕, as in 匕 (妣) 甲, 匕 (妣) 乙, 匕 (妣) 丙, etc., is written in three ways: 𠂇, 𠂈, and 𠂉 (here in the descending order of more frequency to less, but the second and the third forms are structurally the same). In the Bīn 賓 diviner group inscriptions, the graph for *cóng* 从 is typically written 𠂇 and 𠂈, as are their mirror-image varieties (cf. Lín 1981:70). Lín Yún did not specifically mention what the graphs 𠂇, 𠂈, and 𠂉 depicted, but probably followed the standard interpretation that the graphs, specifically the latter two, depict a kind of “spoon”, rather than “human” (some think “woman”).⁴ If this is correct, the characterization of Type B graphs mentioned above as “curvy human figures with their arms bent at the elbow with the hands going up” would be wrong. We would instead have to state that Type B graphs consist of “two spoons” following Ch’ū Wàn-lǐ (see fn. 4) whose work Lín Yún developed further. Indeed the forms 𠂇 and 𠂈 fit, *mutatis mutandis*, the description and photographs of a few Shāng *bǐ*-spoons given by Róng Gēng 容庚 who described “.....體微凹銳末而柄曲” (body slightly concave with a sharp tip and curvy handle).⁵ Based on these, the form 𠂇, actually identical in unequivocal pragmatic contexts to *rén* 人 ‘human being’, could be interpreted as an abbreviation of the scoop portion, a “quick execution,” as it were, of 𠂉.⁶

The above palaeographical review of the relevant graphs might indicate that Lín Yún’s interpretation of the graph 𠂇 (side view of a human figure, but not really so according to Lín Yún who has transcribed Type A graphs as 比) and 𠂈 (side view of a

³ E.g. Lǐ Zōngkūn (2007).

⁴ Lín (1981:70) quotes with approval the interpretation by Ch’ū Wàn-lǐ (Qū Wànli) 屈萬里 who proposed that the graph 比 did not originally consist of 人, but of two 匕 (“比”字則本來并非从人，是从二匕). See Ch’ū (1948:213-217).

⁵ Róng (1941:575-576, 1.372 and 2.21, Plate 408, #1366). Also, Hayashi (1984:162) gives a set of pictures of the *bǐ* spoons, with a particularly good one of the spoon’s side view.

⁶ Cf. also Zhāng & Mǎ (1985:576, #1368, and 800, #1965).

spoon) is defensible. If we follow this, when the latter element is combined as 𠂔, it would make sense to transcribe it as *bǐ/bǐ* 比 rather than *cóng* 从 (= 從) ‘to follow’. However, the matter is not as simple as this.

First of all, Lín Yún seems to “idealize” his interpretation. But here we need to consider graphic pragmatics, i.e., how the graphs are used in a larger context, as well as the question of “graphic intent or design” (造字意圖) on the part of original scribes. Let us, therefore, look at some relevant inscriptions; e.g. *BB* 12 (4) and (6) in which the graphs 𠂔 and 𠂔, and also *BB* 22 from (1) to (4) and from (11) to (14) in which 𠂔, 𠂔, and 𠂔 are used:

貞王勿_レ咎_レ。 BB 12 (4)

Tested: His Majesty should not follow Zhǐ Jiá. (Translation according to our interpretation; ditto below.)

辛酉卜般貞王勿佳戛𠂔。 BB 12 (6)

Crack making on the *xīnyǒu* day, Nan tested: It should not be Jiá whom His Majesty follows.

乙卯卜𣪠貞王𠄎望乘伐下危受虫又（佑）。 BB 22 (1)

Crack making on the *yīmǎo* day, Nan tested: His Majesty should follow Wáng Chéng to attack Xià Wēi (or Xī 觶?), (for) he will receive abundant assistance [from Dì].

乙卯卜𣪠貞王勿𠄎望乘伐下危弗其受又（佑）。 BB 22 (2)

Crack making on the *yǐmǎo* day, Nan tested: His Majesty should not follow Wáng Chéng to attack Xià Wēi (or Xī 觶?), (for) he might not receive assistance [from Dì].

貞王竹望乘。 BB 22 (3)

Tested: His Majesty should follow Wàng Chéng.

貞王勿望乘。 BB 22 (4)

Tested: His Majesty should not follow Wàng Chéng.

貞王甶汙戛𠬪伐 [巴方]。 BB 22 (11)

Tested: It should be Zhǐ Jiá whom His Majesty follows to attack the Bā fāng.

貞王勿𠬞沚戛伐 [巴方]。BB 22 (12)

Tested: His Majesty should not follow Zhǐ Jiá to attack the Bā fāng.

由戛 𠂔𠂔。

BB 22 (13)

It should be Jiá whom [His Majesty] follows.

勿佳戛 𠂔𠂔。

BB 22 (14)

It should not be Jiá whom [His Majesty] follows.

In the above inscriptions, BB 12(6), from BB 22(1)(2), and (11)(12) all show that the graph in question is written with two “human-like” figures juxtaposed, and that in BB 12(4), BB 22(3)(4), and (13)(14), the graph is written with two “spoon-like” drawings juxtaposed. Lín Yún used BB 21(1), which is comparable to BB 22(1) and BB 22(3) (they form *chéngtào bǔcí* 成套卜辭 ‘related inscriptions on a set of turtle plastrons or bovine scapulas’) to argue that the graph 𠂔 expressed the same word written 𠂔, i.e., *bì* 比 in his view. This interpretation would be palaeographically more defensible than the *cóng* 从 (= 從) interpretation **if**, and **only if**, one believes that 𠂔 is not really a human figure, but an abbreviation of the scoop portion of a spoon. However, we do know that 𠂔 is a genuine graph for *rén* ‘human being’, which is common knowledge with hundreds of examples attesting to it (e.g. *Heji* 7312, 22092, 26916, 28012, 32375, etc.). Following this, the graph 𠂔 should be transcribed as 从. If we accept this, we may just as well argue the exact opposite to Lín Yún’s interpretation. This is simple logic, since there is no doubt that in the above inscriptions 𠂔 / 𠂔 and 𠂔 / 𠂔 expressed the same word.

Let us, therefore, pursue this alternative interpretation contrasting with Lín Yún’s *bì* 比 interpretation. Consider the following pair of inscriptions:

𠂔𠂔 于河。

BB 443 (5)

(If we) indeed follow, (it should be) from/to the River.

其 𠂔𠂔 勿于河。

BB 443 (6)

(If) we should follow, (it) should not (be) from/to the River.

First, the graph 𠂔𠂔 above cannot stand for the word *bì* or *bǐ* 比 because its basic meaning such as “to compare, pair up with” or Lín Yún’s 親密聯合 ‘closely unite, form a close alliance’ makes no sense in the above positive and negative pair.⁷

⁷ A reviewer offered the following alternative interpretation: “[we] should allow OBI words the same degree of semantic flexibility as modern Chinese. Thus BB 443 could easily be translated as ‘(we) should join with (context implicit proper noun) at the river’.” BB 443 is the reverse of BB 442, and this plastron as a whole has a relatively rich context with four place or region names, but there is no evidence for anyone to “join with” anyone. By contrast, there is

Graphically, no scoop portion of a spoon is depicted and, quite importantly, the graphic design by the scribe must have been a depiction of the human figure, since he wrote the graph in two strokes like 𠂔. This can be contrasted with 𠂔 which depicts the head, body, and arm as if they were written separately; that is, the stroke started from the top, momentarily stopped at the neck, slightly to the right and then down to the body. In the case of the latter form (𠂔) it has a double function of expressing both *rén* 人 and *bǐ* 匕. Given the general meaning of the above pair (each consisting of the subordinate and main clause), however, it would be difficult to interpret 𠂔𠂔 as *bì*. (See fn. 7)

Second, there are in the over-leaves of the *BB* rubbings, which show Chang Ping-ch'üan's (Zhāng Bǐngquán) 張秉權 transcriptions into modern Chinese characters, a total of 149 cases of *cóng* (or *bì* according to those who follow Lín Yún). I went through all of them one by one checking how the original bone graphs are written. Ten cases have to be excluded from consideration because how they are inscribed cannot be determined. The remaining 139 cases can be divided into two groups: one is executed in a “*bǐ*-like way” (𠂔, 𠂔, etc.); another in a “*cóng*-like way” (𠂔, 𠂔, 𠂔, etc.). I found that 16 cases belong to the former group (Type B) and 120 cases to the latter group (Type A), with one interesting case of mixing of the “*bǐ*-spoon like” 𠂔 and the “*rén*-man like” 𠂔 in *BB* 156 (3).⁸ The ratio of the two groups is about 1 to 7.5 (or about 86% for the latter group). It is also significant that all the *bǐ*-like graphs occur in the same syntactic environments dealing with the same topic in the *BB* corpus, while the *cóng*-like graphs occur in different syntactic environments dealing with different topics (see below). In some of the latter group, Lín Yún's proposed meaning “closely unite, form a close alliance with, join with” (親密聯合) does not work. In addition to the above pair of *BB* 443 (5) and (6), a few examples are given below:⁹

貞今丙戌倏姪𠂔 𠂔 雨。

BB 157 (1)

Tested: (On) the present *bǐngxū* day, (if we) burn-at-the stake a (woman of) Cai (?), (there will be:) we will get ensuing rain.

貞姪亡其 𠂔 雨。

BB 157 (2)

Tested: (If it is) a (woman of) Cai (?) (that we burn-at-the stake), (there might not be:) we might not get ensuing rain.

some evidence that 河 is in contrast with Gōng 龔 in *BB* 443(3). For more detail, the reader is referred to Takashima (2010:I.653).

⁸ There are also two cases of the arms and the spoon's scoop-portion strokes missing in *BB* 16 (4) and *BB* 312 (8).

⁹ For more in detail, see Takashima (2010:II.519).

丁酉卜敵貞沚戛鬲册王 𠄎。

BB 463 (1)

Crack making on the *dīngyǒu* day, Nan tested: (With) Zhǐ Jiá having (raised the tablet:) taken the commission, His Majesty should follow (him [to attack]).

Let us now consider the hook-like 𠄎 element in the graphs 𠄎 and 𠄎. If we take 𠄎 as a curvy spoon body, the only possibility is to consider the 𠄎 element as the spoon portion on the tip turned upside down. This is based on the photographs given in Hayashi (1984) and Róng (1941) (cf. fn. 5) and is palaeographically plausible since the Shāng and Zhōu spoons were used to dig into cooked meat and scoop it up. Thus, the 𠄎 element, a spanner- or wrench-like shape (perhaps “tine”), could just represent the spoon portion. Indeed, the graph 𠄎 is used as a phonetic loan to write the word *bǐ* 妣 ‘ancestress’, although the same word is also, more frequently in fact, written by 𠄎 as already mentioned.

The upside-down placement of the graph 𠄎 may, however, pose a palaeographical problem. If we consider other examples such as 𠄎 (大) and 𠄎 (𠄎, 牛), they show that the “graphic composition” of the latter two would be quite different so much so that the words expressed by them are also different: 𠄎 is turned upside down to yield 𠄎 > 𠄎 ‘go against’ (*nì/*ɲrak*) and 𠄎 itself is written with a little modification in the arms and on the top (representing head) as 𠄎 > 牛 ‘bovine’ (*niú/*ɲwə*). In a case like 𠄎 (= 止 ‘stop’, but if inscribed as 𠄎 (with a line below 𠄎), we get 𠄎 ‘go’. If we reverse 𠄎, we get 𠄎 (= 𠄎); the former member (𠄎) serves as a signfic conveying the idea of “motion”, and the latter (𠄎) conveying the idea of “come down” as in *jiàng/*krυh* 降 or “get to” as in *gél/*krak* 格. If 𠄎 and 𠄎 are reversed, we would get 𠄎 and 𠄎 which, if a pair of spoons, would have been written in such ways as to suggest that they indeed are. But not a single example can be found. There must have been some reason for this. Conceivably, a pair of spoons did not signify anything. It seems more natural to interpret that 𠄎 depicts two humans lined up one following the other. Two humans juxtaposed or lined up can readily suggest such a sense as “follow” or “line up”, directly triggering the association with the word *cóng/*dzoŋ* 从 ‘to follow’. But it is hard to think of any good reason why two spoons should be juxtaposed or lined up.¹⁰ I am not aware of any evidence, cultural or archaeological, that the

¹⁰ Lín (1981/1998) apparently interpreted the juxtaposed spoons as implying “compare” (比). There is no explanation why two spoons are placed side-by-side to connote the idea of a comparison. Here we should also note that 比 or 从 does not have any “plural” or “intensifying” implication as characters such as 林, 森, 众, 竝, 姦, and 炎 seem to have. The *Shuōwén*’s (8a/16a) explanation that 比 is the mirror image of 从 (二人爲从, 反从爲比) is now generally discredited by palaeographers because in the inscriptions the mirror images of most graphs made no difference in expressing the same word. However, since two

spoons came in pairs.¹¹

Philologically, the interpretation of all the graphs discussed above as standing for *cóng* 从 ‘to follow’ is much stronger than *bì* ‘join with, link up with’. To recapitulate the graphs, they are:

𠂔, 𠂕, 𠂖, 𠂗, 𠂘, and 𠂙

As noticed by Lǐ Zōngkūn (2007), it would be strange to construe 王勿𠂔𠂕𠂖𠂗伐巴方, for example, as “*His Majesty should not form a close alliance with Zhǐ Jiá to attack the Bā fāng.” Zhǐ Jiá and Wàng Chéng 望乘 are known to have been the king’s strong allies or supporters, and there would have been no need to 親密聯合 ‘make alliance with’ them in the first place. For this reason Lǐ Zōngkūn—who, however, accepts the transcription of 比—suggests a gloss “to assist” (補助) for this type of example. Similarly, Liú Yuán (2007) accepts the 比 transcription, but suggests a gloss to “to cooperate” (*huìtóng* 會同, *xiélì* 協力). I am not sure if such meanings are correct, but what we should pay particular attention is the fact that there is no use of the word *bì* in military or warfare contexts in the received texts. None of the examples Lín Yún cites from the received texts are found in such a context (1981:74). By contrast, there is a plethora of examples of *cóng*. Given below are only a few representative examples:

蔡人從之伐戴。

Zuǒzhuàn (Yǐn 隱, 10)

The men of Cài followed them (= the armies of Sòng and Wèi) to launch an attack against Dài.

公曰君謂許不供，故從君討之。

Zuǒzhuàn (Yǐn 隱, 11)

Duke (Yǐn) said, “Since you, Sir, mentioned that the State of Xǔ was not loyal to Zhōu, I followed you to chastise them.

秋蔡人衛人陳人從王伐鄭。

Chūnqiū (Huán 桓, 5)

In autumn the men of Cài, Wèi, and Chén followed the king to attack Zhèng.

different words —*bǐ*/**pi*? 比 ‘to compare’ and *cóng*/**dzoŋ* 从 ‘to follow’ — are involved here, we need to distinguish them.

¹¹ A scholar in the audience of the workshop at the Center for Chinese Studies, University of California, Berkeley on October 1, 2011 commented that in English there is such an expression as “sleep spoon fashion” meaning that two persons sleep with their heads in the same direction. Might this possibly be a semantic link that there was something similar in Shāng culture? This is intriguing; we leave it as a question for the present.

What is significant about the *Chūnqiū* entry above is that both the *Gōngyángzhuàn* 公羊傳 and *Gǔliángzhuàn* 穀梁傳 comment on the expression *cóng wáng fá* Zhèng 從王伐鄭. The former commentary explains: 其言從王伐鄭何. 從王, 正也 (What is the significance of “followed the king to attack Zhèng”? “Followed the king” was the correct course of action). The latter commentary to the same *Chūnqiū* passage reads: 舉從者之辭也. 其舉從者之辭何也. 爲天王諱伐鄭也…… ([The *Chūnqiū*] gives a description about the king’s followers [i.e., men of Càì, Wèi, and Chén]. Why does it do so? It is because of the Sovereign’s suppressing mention of the fact that they attacked Zhèng ...). Notice that *cóng* 從 ‘follow’ is used **in collocation with** the verb *fá* 伐 ‘to attack’, and in the second example above from *Zuǒzhuàn* the verb *tǎo* 討 ‘to chastise’ is used. Both are related to military activities. By contrast, out of about 30 examples of 比 in the *Zuǒzhuàn*, **none** occurs in collocation with *fá* or *tǎo*.

On the other hand, in a bronze inscription of the mid-Western Zhōu period (Bān gǔ 班簋), we find *bì* used in a military context:

王令吳（虞）伯曰以乃師左比毛父；王令呂伯曰以乃師右比毛父；遣令曰以乃族從父征。

The king ordered Elder Yú saying, “Lead the left battalion of your army to join with Patriarch Máo”; the king ordered Elder Lǚ saying, “Lead the right battalion of your army to join with Patriarch Máo”; Qiǎn ordered (them) saying, “Lead your lineage groups to follow Patriarch (Máo) to launch a punitive expedition (against the enemy).”

There are two things of particular interest in the above example. One is that the word *bì*, written 𠂔 (written *bǐ*-like way), is followed by *cóng* 從, written 𠂔, showing a clear contrast and unmistakable lexical distinction between *bì* and *cóng*. Another is the meaning of *bì* here. Although I have taken it to mean “to join with, link up with” (actually similar to Lín Yún’s) as it is imbued with a strong underlying sense of “pairing up, combining”,¹² we do not find this sort of a perfect example of *bì* and *cóng* in the Shāng oracle-bone inscriptions. Notice, however, that *cóng* in the above bronze inscription is written 𠂔 which contains a “*bǐ*-like graph” 𠂔. No doubt this evolved to 从 in 從. Apparently the Zhōu scribe added the radical 辵 to distinguish it from *bì*. Moreover, there is a collocation of *cóng* 𠂔 with the verb *zhēng* 征 ‘to go on a punitive expedition’, a “genuine” military or warfare related verb.¹³ This is similar to

¹² Zhū Jùnshēng (1834:517) (*Lǚ-bù* 履部, 12) explains: “兩相並故爲合併” (two things are lined up, thus merging).

¹³ There are more examples of the collocation of *cóng* and *zhēng*. To cite just one more here: 唯三月丁卯師旂衆僕不從王征于方…… ‘It was on the *dīngmǎo* day in the third month that the

what we have already seen: *fá* 伐 ‘to attack’ and *tǎo* 討 ‘to chastise, to send armed forces to suppress’ in the received texts. In oracle-bone inscriptions we have already seen that *cóng* is collocated with *fá* (BB 22 (1) and (2), (11) and (12)). This, we believe, is very important.

To sum up, the *bì* 比 transcription is based on Lín Yún’s idealized or perhaps lop-sided distinction between *bǐ* 匕 and *rén* 人. Logically, one could argue for the exact opposite. The “*bǐ*-like way” of writing comprises about 14% as opposed to 86% of the “*cóng*-like way” of writing, and graphic pragmatics suggests a lax distinction between them. Stated differently, the words *cóng* 从 and *bì/bǐ* 比 are different from each other, and yet the graphs used to express them were not strictly distinguished until the graph 𠂔 was created. Palaeographically, the hook-like 丿 element in 𠂔 and 𠂕 might not look like the tip of a spoon, but considering the Shāng and Zhōu spoons were used to gouge cooked meat to scoop it out to serve, it can be taken as a depiction of the tip of a spoon. This explains that a single *bǐ*-spoon 匕 is used as phonetic loan for the word *bǐ* 妣 ‘ancestress’. However, it is hard to explain why two spoons would be juxtaposed to convey the sense of “pair up, join with; compare.” By contrast, writing two human figures in tandem easily conjures up the idea of “follow” (从) as well as “compare” (比), triggering the association of both Type A and B graphs with the words, but we have chosen the former word for the examples discussed in the paper. Philologically, there is a collocation of *cóng* 从 ‘to follow’ with military or warfare related words such as *zhēng* 征, *fá* 伐, and *tǎo* 討, but *bì* 比 does not display such a collocation. As we saw in a series of ten related oracle-bone inscriptions earlier, there is a collocation of *cóng* with *fá* in the same way as in the *Zuǒzhuàn*, *Gōngyángzhuàn*, *Gǔliángzhuàn*, and *Chūnqīu* examples cited above. We have seen a reliable usage of *bì* in the bronze inscription (Bān guǐ 班簋), but this is not followed by *fá* 伐, *tǎo* 討, or *zhēng* 征; rather it occurs independently from these verbs.

multitudes of Shī Qí’s servants did not follow the king to go on a punitive expedition against Yú fāng...’ (師旂鼎).

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論「从」與「比」

高鳴謙一

英屬哥倫比亞大學

自林澧先生發表〈甲骨文中的商代方國聯盟〉《古文字研究》（第六輯，1981 年，67-92 頁）一文以來，已有不少學者接受了他的觀點，將下列兩類字形統一隸定爲「比」。

A 類： 
B 類： 

A 類字形的特徵是兩個人排成一隊或彼此相接，且他們的手臂下擺。B 類字形與 A 類相似，但不同處是 B 類的身體呈典型彎曲狀，肘部勾曲手上揚。林澧先生認爲，這兩類都釋爲「比」，是「親密聯合」之義。雖然將這類字形釋爲「比」的觀點已被廣泛接受，但已有少數學者發現其解釋並不一定適用所有的情況。從邏輯、古文字、語義、文獻語言學等方面對這個解釋進行考察，結果表明，似有可商議之處。

關鍵詞：比，从，造字意圖，甲骨文，古漢語文字學

The Lingering Puzzle of *Yán* 焉: A Problem of Oral Language in the Chinese Reading Tradition *

David Prager Branner
City College of New York
and *Institute for Advanced Study*

Graphic motivation of the character 焉 has long been obscure, though the underlying words have been much discussed as contractions. It is proposed that neither of the underlying words is a true contraction, and the most economical explanation given current evidence is that the graph's structure is a purely semantic ligature or "portmanteau."

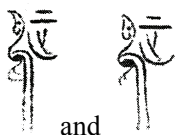
Key words: graphic motivation, *yan* 焉, George A. Kennedy (1901-60), contraction, ligature, "portmanteau" graph, Wēnxiàn covenant texts

1. The problem of *yán*'s 焉 structure

The modern *kǎishū* 楷書 'square script' form of the Classical Chinese particle *yán* 焉 is a strange composite. It seems to consist of *zhèng* 正 'upright; to rectify' above and the bottom of *wū* 烏 'crow; black; (grammar particle)' or *niǎo* 鳥 'bird', below. The received explanation comes from *Shuōwén*: "焉鳥, 黃色, 出於江淮" [The *yán* bird. It is yellow. It comes from the Jiāng-Huái region] (*Shuōwén jiězhì gǔlín* 4.2478), and adds that this bird is one of several represented by pictographs (rather than phonograms) because they are "honored" (*guì* 貴; the others are *fēng* 鳳 [鳳] 'the divine bird', *wū* 烏 'crow', *xì* 鴛 'magpie', and *yàn* 燕 'swallow', all of which are associated with ancient lore). Over the centuries there have been attempts to identify the *yán* as a bird better known by some other name but Duàn Yùcái 段玉裁 (1735-1815) comments that "今未審何鳥也, 自借爲詞助而本義廢矣" [Nowadays we cannot make out what bird it is; after being used as a loan graph for a grammar word, the character lost its original meaning] (ibid.).



* This paper includes material presented in Branner (2003b, 2007). My sincere thanks to Adam Smith, whose observation about an early excavated form of 焉 caused me to revisit this paper. He is not to blame for my conclusions, however. Final work on this paper was done while I was Willis F. Doney Member, Institute for Advanced Study, in the Fall of 2013.

When it comes to the forms of characters, bronze inscriptions generally supply the clearest of all the ancient evidence we possess, because they are monumental and not prone to cursive deformations. Unhappily, *yán* is barely attested to date in our large corpus of bronze script, showing up in a single late piece, the “Zhōngshān wáng Cuò (?) fānghú” 中山王響方壺, dating apparently from the second half of the fourth century B.C.E.¹



That is no pictograph. It is a compound graph made up of two distinct components: *wū* 烏 (the bird-like pictograph on the left) and something that looks like *zhèng* 正. We can well imagine that modern 焉 derives from these two elements with a few strokes saved; the author of the *Shuōwén* does not discuss this bronze form.

For 正 to have an “extra” line on top (we might normalize it as 𠄎) is common on bronzes after the late Western Zhōu; this character is well attested in dates (in *zhēngyuè* 正月 ‘rectified [i.e., first] lunar month’ and related expressions). The double horizontal line is not the “doubling mark” (*chóngwén hào* 重文號, also “ligature mark” *héwén hào* 合文號), used for indicating graphs to be repeated and ligatures; the doubling mark always appears at the lower right of an affected character. In fact, in bronze inscriptions a number of other common graphs often have just such an “extra” line added above a prominent and uncrossed horizontal line. The addition is presumably ornamental (rather than structural or serving as a diacritic); here are two other examples from the same inscription, the “Zhōngshān wáng Cuò (?) fānghú”:











<i>form</i>		
<i>presumed standard equivalent</i>	<i>tiān</i> 天 ‘heaven’	<i>bù</i> 不 ‘(negative particle)’:

In sum, the bronze forms of *yán* 焉 are fully in keeping with its modern *kǎishū* form: a composite of 烏 and 𠄎 (正).



¹ *Yīn Zhōu jīnwén jíchéng shìwén* 9735. In this paper, graphs from inscriptions are rendered from rubbings, rather than from the manual ink copies that are commonly used (without attribution) by many scholars. Although the appearance of a rubbing-graph may be rough, it is usually much closer to what the actual evidence looks like than does a manual copy.

But there is another possible analysis of 焉. George Kennedy (1901-60) famously proposed that *yán* was a “fusion” or contraction of words meaning “*yúshì* 於是” [‘at this/that place’, ‘in relation to this/that’, etc.] (Kennedy 1940, 1953a). It seems possible that the graph 焉 is actually a composite of 於 (written 烏) and 之 or 是 (written 止).² If so, and if Kennedy’s proposal is correct, then 焉 is an example of an oral contraction (“*yúshì*”) represented in writing by a ligature (於+之/是). It is important to distinguish the idea of a contraction, which is the joining of oral words, from a ligature, which is the joining of written graphs. It seems clear that 焉 is a ligature; what is not clear is whether it could also represent an oral contraction.

Yán 焉 appears a number of times in the *méngcí* 盟辭 ‘oath texts’ or ‘covenant texts’ written in ink on stone and excavated at Wēnxiàn 溫縣 in Hénán Province during 1979-82.³ Dated tentatively to 497 B.C.E by the excavators, the materials consist of different ancient versions of the same short text, in diverse hands but all found at the same site. Most of them are again ligatures or composites of 烏 and 正(正), with 烏 sometimes resembling 羽, apparently *yǔ* ‘feather’ (esp. Hǎo & Zhào 1983, fig. 7):

				
Hǎo & Zhào 1983, fig. 5	ibid., fig. 6	ibid., fig. 7	ibid., fig. 8	ibid., fig. 10
				
ibid., fig. 12	ibid., fig. 13	ibid., fig. 14	ibid., fig. 15	ibid., fig. 16

But two examples support Kennedy’s hypothesized contraction-ligature:

	
ibid., fig. 9	ibid., fig. 18

² The word *yú* 於 ‘to go; at, *vis-à-vis*’ is commonly written with the graph 烏 in inscriptions and sometimes also in received texts. And our modern graph 於 descends from 烏. The element 方 in our modern 於 is a clerical simplification for 烏, unrelated to the series of graphs that contain 旂 and have to do with banners (*jīngqí* 旌旗, *máo* 旄, *pèi* 旆, etc.). 止 differs slightly from the normal way of writing the normalized cursive graph *zhī* 之 ‘[third-person direct object]’ in bronze inscriptions; it also occurs as a component of *shì* 是 ‘this’ and *zhèng* 正.

³ Hǎo & Zhào (1983). These graphs are reproduced here from modern hand-copies in ink.

These are plainly composites of 烏(於) and 是 (this observation is due to Adam Smith, p.c., February, 2012). Their exact structure is not identical (one is 烏+是, the other 是+烏) and they are not in the same hand. But assuming them to be more conservative than the others, it would seem that by the time of these documents this explicit form was already being supplanted by a composite of 烏 and 正, whose motivation as the written form of the original contraction may have ceased to be recognized. (It may be that 正 was a cursive abbreviation of 是, but I am not aware of supporting evidence.) Modern 焉 descends from the opaque later variant.

2. The problem of the missing pronoun

It is well and good to say that the written ligature 焉 corresponds to an oral contraction. But in almost fifty pages of discussion, Kennedy is never able to pin down the second of the two words making up the proposed contraction, and the question is still unresolved today.

In general, Chinese contractions differ in how the second syllable is reduced; sometimes only its initial is retained; for instance:⁴

何不	* <i>gaj pjut</i> ‘why not’ ⁵	→	盍	* <i>gap</i>
叔母	{syuk _{3b} mouQ ₁ } ‘wife of father’s younger brother’			
	{通三入屋書} {流一上厚明}	→	孀	{syemQ ₃ 深三上寢書} ⁶

and sometimes the initial is dropped or reduced:⁷

之於	* <i>tʃi ʔja</i> ‘(possessive particle followed by coverb)’	→	諸	* <i>tja</i>
不可	* <i>pjut khajʔ</i> ‘not to be possible’	→	叵	(* <i>phajʔ</i>)

In the case of Kennedy’s proposal for 焉, allowing for either kind of contraction, we have

⁴ Old (here “early”) Chinese readings are those with an asterisk and come from Baxter (1992); although Baxter has produced newer reconstructions, working together with Laurent Sagart (Baxter & Sagart 2011), to date his thinking is most fully documented in the 1992 work. Medieval readings are from the *Guāngyùn* and are transcribed following Branner (2006).

⁵ Mandarin *bù* does not correspond to the medieval (and therefore the early Chinese) readings of 不; here I supply the early Chinese of *fú* 弗 for 不.

⁶ The example of 叔母 → 孀 is rendered in medieval rather than early phonology; 孀 is a late graph and its *xièshēng* series is not treated in Baxter (1992).

⁷ The glottal stop [ʔ] is considered an actual initial in reconstructed early Chinese; it contrasts with smooth ingress, for instance in the case of *hū* 乎 **a*.

$*\gamma ja$ 於 + $*tji$ 之	→ $**\gamma jat$ or $**\gamma ji$
or $*\gamma ja$ 於 + $*dje?$ 是	→ $**\gamma jaj$ (from $**\gamma jadj$) or $**\gamma je?$

Any of these is a leap from 焉’s expected early Chinese readings $*\gamma jan$ and $*h(r)jan$ because the required $*-n$ in 焉 does not appear in the codas $**t$ or $**j$; if our understanding of early phonology is correct, then this is no contraction in the familiar sense.⁸ Kennedy thinks (1940:19) that the final of $*njan$ 然 ‘thus, like this’ represents the same elusive pronoun that contributes the $*-an$ ending to $*\gamma jan/h(r)jan$ 焉. This pronoun has never been conclusively identified in isolation, however. Jerry Norman (1988:86) suggests that certain pronouns known in later eras, *ěr* 爾 ($*njaj?$, $*njij?$) and *nà* 那 ($*najs$)⁹ ‘that’, could have provided the $*-n$ coda, although they are not attested in the Classical period.¹⁰ Paul Goldin hazards (2003, 2004) that the pronoun is none other than $*\gamma an$ 安, which is found in place of final 焉 in *Guōdiàn* 郭店 versions of some known texts. That would be neat; *yán* 焉 itself sometimes seems to function as a pronoun (depending on how we view the transitivity of the preceding verb, a matter on which opinions vary). But we lack evidence of 安 as a pronoun independent of its alternation with *yán* 焉, and also of its being written as 止 or 是 or something

⁸ Further on the possibility of $**\gamma jaj$, the sixth-century *Jīngdiǎn shìwén* 經典釋文 reports a reading “焉音夷” (i.e., *Guāngyùn* “以脂切” {yī_{3c} 止開三平脂羊}) for the compound *yánshǐ* 焉使 in the *Zhōu lǐ* 周禮 (*Jīngdiǎn shìwén* 2001:135, “*Zhōu lǐ zhèngyì* 周禮正義” 19下.11). This reading ($*ljij$) would indeed give a value ending in $*j$, but the initial and vowel are not those of $**\gamma jaj$ and we are no closer to a solution. And the reading is based on a misunderstanding: a comment on the line in question in the *Zhōu lǐ*, where Zhèng Sīnóng 鄭司農 (d. C.E. 83) identifies *yánshǐ* 焉使 to mean *Yí shǐ* 夷使 ‘emissaries of the Yí’, implying that 焉 represents the word *yí* 夷 (*Zhōu lǐ zhèngyì* 2001: “秋官” 38, “行夫” 1641-42). On this basis, the *Jīngdiǎn shìwén*’s source has assigned *Yí*’s reading to 焉. Neither Zhèng Xuán 鄭玄 (C.E. 127-200) nor the Táng commentator Jiǎ Gōngyàn 賈公彥 (fl. 638-653) follow this explanation; Zhèng Xuán identifies 焉 to be read as a particle of some kind (“發聲” [the sound is sent off]) and Jiǎ has separated it from 使, making 焉 the last character of the previous phrase, our familiar final particle. Although Zhèng Sīnóng’s reading is presumably a misunderstanding, it is interesting that it was still considered legitimate in the sixth century; *Dà cídiǎn* and *Hànyǔ dà zìdiǎn* both perpetuate this reading, as does *le Grand dictionnaire Ricci*.

⁹ Baxter’s reconstruction of $*naj$ for 那 corresponds to its medieval reading “諾何切” {ne₁ 果開一平歌泥}, Mandarin *nuó* ‘much; lovely’, etc. Modern *nà* ‘that’ does not fit neatly into received phonological categories and is presumably a popular-stratum relic of a different word or at least a word conventionally written with a different graph, just as are *de* 的 ‘(possessive/attributive particle)’ of *zhī* 之 $*tji$, *bà* 爸 ‘father’ of *fù* 父 $*b(r)ja?$, *bù* 不 ‘not’ of *fú* 弗 $*pjut$, and so on. In Western scholarship this principle was recognized first in Demiéville (1951), but in China it dates at least to Qián Dàxīn 錢大昕 (1728-1804).

¹⁰ *Ēr* 爾 means “that” in medieval language but “you” and “like that” in early Chinese.

plausibly related to them. One of the unspoken merits of Goldin's idea is that the interchangeability of 焉 and 安 must have been aided by the phonological opacity of both graphs. Loan usage in Chinese appears to follow very loose principles of “functional homophony”; in a writing system where the principle of defectiveness (phonetic laxity) dominates, the less explicit the phonology of a graph, the more effectively it serves as a loan to write a different word with a different pronunciation.

Edwin Pulleyblank circumvents the problem of the unattested pronoun by proposing (1991:29-34) that the final **-n* of 焉 is the relic of a suffix that he identifies with attaining certain states and with anaphora (i.e., implied back-reference to a previously specified noun):

于 <i>*w(r)ja</i> ‘to go’ → ‘(aspect particle)’	爰 (<i>*wjan</i>) ¹¹ ‘(aspect particle, anaphoric)’
語 <i>*ng(r)ja?</i> ‘to speak’	言 <i>*ngjan</i> ‘to say; word’
徒 <i>*da</i> ‘bare’	袒 (<i>*dan?</i>) ¹² ‘to strip oneself naked’
在 <i>*dzi?</i> ‘to be located at’	存 <i>*dzin</i> ‘to exist’
依 <i>*ʔijj</i> ‘to lean on’	因 (<i>*ʔjin</i>) ¹³ ‘to rely on, follow along’

He supplements his proposal with material suggesting a parallel **-t* suffix, a meme developed by several hands from an insight of von der Gabelentz (1840-93) and Dīng Shēngshù 丁聲樹 (1909-89).¹⁴ But all this is tenuous; other **-n* suffixes have also been proposed. Axel Schuessler sees two suffixes **-n* and **-an* meaning “‘completeness’, or, to put it graphically, ... the limit of the field of meaning”; A. C. Graham notes “a remarkable variety of words for circular shape or motion” associated with **-n* endings.¹⁵

Suffix **-n* turns out to be as phantom-like as Kennedy's pronoun. And that should not surprise us, because derivational morphology remains hypothetical in Chinese of the epoch before the medieval sources.¹⁶ I am frankly undecided on this question, but since

¹¹ **wjan* for 爰 does not appear in Baxter (1992) but follows as the homophone of 援. Pulleyblank also relates 于 to 云 **wjin* ‘(aspect particle)’ → ‘to say so’, following Graham (1983). Reconstruction tokens remain those of Baxter (1992), not Pulleyblank, for the sake of consistency with the rest of the article.

¹² This form does not appear in Baxter (1992) but the reading supplied here is figured from medieval sources and graphic structure.

¹³ This form does not appear in Baxter (1992) but the reading supplied here is that of 姻 and 姻, following Pulleyblank's argument about the early Chinese rhyme-group of 因.

¹⁴ Gabelentz (1881:449, no. 1213 勿, 552, no. 1222 弗), Dīng (1934-35).

¹⁵ Schuessler (1976:55-57), Graham (1983:57-58); cf. the résumé of related ideas in Sagart (1999:135-136).

¹⁶ While there are what look like relics of morphological affixation in attested medieval phonology, they are few and we lack evidence that this kind of morphology was ever a productive system.

morphology is now the dominant model in the field as practiced in Western sinology, I wish to state clearly what I see as the model's high-level weaknesses. First, of itself, the script gives no signs whatever of having been used to write anything other than an isolating language, and we have no evidence of discussion in the native tradition about the problems of writing a derivational language with an isolating script. Second, phonology, on which the internal reconstruction of derivational morphology rests, is documented for Chinese only in its existence as an isolating language; the earliest of the crucial Tibeto-Burman comparative evidence is some thousand years later than the prime early Chinese period. And written Tibetan itself appears to have been constructed with diasystemic principles in mind, so that its distinctness from Chinese evidence as a source of comparative data cannot be assumed out of hand. Third, many reconstructed Chinese morphological affixes are speculations assigned to a stage prior to attested Chinese phonology—starkly, something prior to what can legitimately be termed spoken Chinese. The attractiveness of fabricating a morphologically productive form of Chinese is evident; the necessity is not.

So we do not yet know enough to recover the pronoun responsible for the contraction and ligature underlying *yán* 焉. By the time of the Wēnxiàn covenant texts, when the ligature 烏+是 is being supplanted by 烏+正, one can imagine that any phonetic contraction must no longer have been obvious to some of the people writing the oaths. One might speculate that the form 烏+正 was actually understood as a ligature of 烏(於) and 止(之), with the two horizontal lines above 止 representing 二 **njjs*, as a kind of diacritic to supply the missing *-n* coda: ***ɻjat+n-* or ***ɻjaɻ+n-* → ***ɻjan*. Diacritics could reconcile derivational morphology with an isolating script. But this proposal is frankly damned by an utter lack of parallel examples from any stage of written Chinese. It is one more optimistic mirage.

It has been suggested that *yán* 焉 originally had a coda **-r*, a segment used from time to time to explain contact between words with codas **-n* and **-j*; Baxter & Sagart (2011) now use **-r* for this purpose with a portion of the traditional 元 and 文 rhyme groups (normally **-an* and **-ən* otherwise in their system), following a proposal of Sergei Starostin (1953-2005).¹⁷ We can represent the suggestion as

There are certain features found here and there in modern forms of Chinese to which reliquary morphological function has been attributed by some scholars, in support of the morphological theory. I am unpersuaded and my working hypothesis is that these features are cases of sound symbolism. See Branner (2002).

¹⁷ Starostin (1989:338-343, 2010:224-227, 2012:166-168). As a solution to the problem of *yán* as a contraction, the proposal of **-r* emerged in discussion with Adam Smith and Paul Goldin at the Penn-Princeton Phonology/Etymology Workshop, May 26, 2013, University of Pennsylvania. Goldin has earlier suggested (2003:172, n18) an **-r* coda for 安, based on the evidence of a non-Chinese place-name in Chinese transcription.

*ʔja 於 + *djeʔ 是 → **ʔjadʒ → **ʔjar (which later behaves like *ʔjan).

At the moment this appears to me the best *ad hoc* solution to the problem of 焉 as a contraction, but without parallel examples not is not very persuasive.

Apart from the phonology, there are other kinds of evidence that make it hard to see 焉 as representing a contraction.

3. The problem of how many words *yán* represents

Above I have been romanizing 焉 as *yán*, its traditional reading in the declarative meaning “at this time” etc.; there is a second reading, *yān*, which has adverbial usage as an interrogative and is now the sole reading in most native dictionaries.¹⁸ The two have coexisted since no later than the early medieval sources:¹⁹

Modern	<i>Qièyùn</i> edition of <i>Wáng Rénxù</i> (c. C.E. 705)	Yán Zhītūi (1960:124; c. C.E. 581)	Early Chinese
<i>yān</i>	於乾切 {an _{3bx} }	若訓何訓安、當音於愆反 [if glossed ‘what’ or ‘how’, it should be read {an _{3bx} }]	*ʔjan
<i>yán</i>	有乾切 {ghan _{3bx} }	若送句及助詞、當音矣愆反 [if it ends a phrase or is used as a ‘particle’, it should be read {ghan _{3bx} }]	*h(r)jan

As Yán Zhītūi indicates, the readings are generally prescribed for different meanings and contrasting syntactic positions. But in modern times there has been a tendency to

¹⁸ *Yān* is the only reading given in the *Xiàndài Hànyǔ cídiǎn* (1978, 2002), *Xīnhuá zìdiǎn* (1975, 1998), *Xiàndài Hànyǔ guīfān cídiǎn* (2004), *Guóyǔ cídiǎn* (2007). The two largest modern dictionaries, *Hànyǔ dà zìdiǎn* and *Hànyǔ dà cídiǎn*, which normally list variant readings in profusion, also omit the Mandarin *yán* reading although they supply its equivalents in *fǎnqiè*.

¹⁹ The *Guǎngyùn* has a third reading, 謁言切 {an_{3a}}, not found in the *Qièyùn* fragments. For 焉 the surviving complete edition of the *Qièyùn* has only a single entry, confused by the juxtaposition of two sets of *fǎnqiè* corresponding to our readings {an_{3bx}} and {ghan_{3bx}} and followed by the gloss “氣已聲” [one’s breath ceases its sound] or [the sound of one’s breath ceasing], presumably identifying the use of 焉 as a final particle. Lung Yü-ch’un (*Qièyùn* 1968:152-153) argues on the basis of other editions that the *Qièyùn* originally had two readings, the first (our {an_{3bx}}) glossed “何” [why] and the second (our {ghan_{3bx}}) glossed as above; the “*Wang yi* 王—” manuscript has “語已聲” [one’s words cease their sounding] or [the sound of one’s breath ceasing].

deny the distinction and to consider the two a single word. Kennedy writes, “Since we find the character used in very early literature to stand for both an interrogative and a final particle, it would follow that these were originally pronounced alike” (1940:196) and argues that the basis of the distinction is “dialect mixture” (1940:196, 204-205).²⁰ Baxter finds the *ad hoc* initial he assigns to the *yán* reading rare in the gestalt system of early Chinese phonology and proposes that *yán* arose as a “stressless alternate” to the main reading (1992:209-210). Pulleyblank thinks *yán* is simply *yān* with its initial truncated due to being an enclitic (2003:636-637). Granted, the main Classical final particles have voiced initials in the documented tradition:

也 {yaQ₃ 假開三上馬羊}, *lɿʔ
 矣 {ghiQ_{3d} 止開三上止匣}, *jiʔ
 乎 {ghuo₁ 遇一平模匣}, *a

and the final-particle reading of *yán* 焉 matches them in that respect. Many particles have an unstressed pronunciation in the oral practice of Mandarin and dialect, but examples of such loss of stress actually winding up in the prescriptive rime²¹-book tradition are not documented. In fact, this would be a striking intrusion of a suprasegmental feature into the writing system and its prescribed reading tradition.

But it belies the evidence to claim that *yán* is a mere distraction to be tossed out. For instance, Kennedy’s reading of *Yán Zhītūi* 顏之推 (531 – after 591), saying the difference between *yān* and *yán* is dialectal, is inaccurate. *Yán Zhītūi* says only that the distinction, while prescribed from the 4th century onward, was being preserved in the South but not the North of his day:

²⁰ Dialect differences are sometimes used as a catch-all to explain irregularities, but Kennedy did not normally indulge in that game. In fact, as a speaker of “Tangsic” (the Wú dialect of Tangsi [Tángqī] 塘棲, in the vicinity of Hángzhōu), he was among the first to advocate the use of more conservative, rural dialects in rigorous study of historical phonology. In 1936, a year before being awarded the Doctorate by the University of Berlin, he proposed:

The dialects best known to westerners have been necessarily those of the coastal cities and large centers, where much intermingling of speech forms has taken place. It might therefore be expected to prove interesting if the more secluded and isolated dialects were examined ... (American Oriental Society 1936:408; see Kennedy 1952, 1953b)

²¹ In my writings I distinguish the meanings of “rhyme” and “rime”. Both forms appear in my paper and I mean different things with them. I use “rime” for *yùnmǔ* 韻母 (as a Chinese phonological entity) and *yùnshū* 韻書 ‘rime-book’, but “rhyme” for 押韻 ‘poetic correspondence between the endings of words’. In the case of the early Chinese *yùnbù* 韻部, even though they would seem to be comparable to *yùnmǔ* 韻母, in fact they are derived from rhyming practice, and so I prefer to call them “rhyme groups”.

案諸字書

焉者鳥名

或云語詞

皆音於愆反

自葛洪要用字苑分焉字音訓...

According to all the dictionaries,

“焉 is the name of a bird;

some say it is a particle.”

and all read it {an_{3bx}}.

But from the time of Gě Hóng's [283-343] “Garden of Characters Vital for Use”, we have distinguished readings and glosses of 焉...

[examples omitted here]

江南至今

行此分別

昭然易曉

而河北

混同一音

雖依古讀

不可行於今也

The south, up to now

observes this distinction—

it is luminously clear and easy to understand—

while the north

confuses them as a single sound

and while [trying to] follow the old readings,

it has not been possible to observe them into the present day.

This should be understood as a regional difference in reading practice, not “dialect”. It is a matter of literate tradition, not spoken language.

Moreover, close inspection reveals incongruity in Kennedy's suggestion that the interrogative and declarative uses of this character represent a single word. To say that they are distinguished only by position is to assert that position alone can regularly distinguish an interrogative pronoun from a declarative one. That is not impossible, but it is hard to think of a parallel example elsewhere in Chinese. A more serious objection is that it is not even true that the two readings of 焉 can be distinguished by position alone; there are occasional cases of the declarative meaning (that is, *yán*) being used as a pre-verbal adverb—positionally indistinguishable from interrogative *yān*—meaning ‘at this time’, for instance:

天子焉始乘舟、薦鮪于寢廟、乃爲麥祈實 [At this time the Son of Heaven rides a boat for the first occasion (in the new year). He presents sturgeon at the temple to his sleeping ancestors and then offers a prayer for the barley, that it should bear grain.] *Lǚshì chūnqū* 呂氏春秋, 3, “Jìchūn jì 季春紀”. (Chén Qíyóu 1984:121)

Interrogative 焉 is also attested in our received *Lǚshì chūnqū*. If both the declarative and interrogative words represented by 焉 can appear pre-verbally, it is hard to believe they were not distinguished by sound in some way.

I suppose that if 焉 turns out to be a plausible contraction-ligature, others may turn up after inspection of excavated material, and I can point to a possible candidate here. I mentioned that Baxter considers his reconstruction $*h(r)jan$ for *yán* to be in need of explanation. It is a rare syllable: in medieval phonology it belongs to the *kāikǒu* 開口 category while most words with the same medieval initial, final, and rime are *hékǒu* 合口, generating early Chinese initial $*wj-$ or $*wrj-$ ($*_G^w-$ or $*_G^wr-$ in Baxter & Sagart 2011). Note that if the Wēnxiàn alternate structure 羽+是 mentioned in §1 is taken literally, 羽 contributes a reading {ghuoQ_{3c} 遇三上麤匣} $*w(r)ja?$ to the hypothesized contraction. And if in addition we allow the $**_r \rightarrow *_n$ coda, we have:

$$*w(r)ja? \text{ 羽} + *dje? \text{ 是} \rightarrow **w(r)jadj \rightarrow **w(r)jar \rightarrow *w(r)jan$$

Now, this $*w(r)jan$ is none other than Baxter's reconstruction of the early particle *yuán* 爰, whose twin meanings “where” and “at this time/place” closely parallel those of the later 焉. One wonders whether, if 鳥+是 and 鳥+疋 are in fact contraction-ligatures, then 羽+是 could be one, as well. If so, we must consider the etymological relationship between 爰 and 焉 (something beyond the scope of this paper, however).

But in sum, problems remain with Kennedy's view of 焉 as a contraction-ligature. The declarative usage of the graph is plausible as the contraction of *yúshì* 於是 semantically, but phonetically we are forced to propose *ad hoc* reconstructions for both initial and coda ($*?ja + *dje? \rightarrow *h(r)jar$). The interrogative usage of the graph is a better match to *yúshì* 於是 on phonological grounds ($*?ja + *dje? \rightarrow *?jar$; still *ad hoc* in the rime) but semantically the switch to interrogative sense is puzzling. In the absence of other evidence, it is simpler to accept the received tradition that these are different words with different pronunciations.

And perhaps a written ligature need not represent an oral contraction, at all. Is there an alternative to that? Yes: 焉 itself is not implausible as an example of “portmanteau” construction, in which a compound graph is composed of characters writing out the definition of the word it represents—although portmanteaux are not otherwise attested as early as 500 B.C.E. Given the available evidence at the moment, however, that seems the safest conclusion.

Although Kennedy may yet prove to have been right and the distinction between *yán* and *yān* may prove later than the Warring States, it remains with us today, pedigreed back to Gě Hóng in the fourth century. I have mentioned that *yān* is now generally considered the only reading for 焉. That was not always so—*yán* has been considered the primary reading at times. We can tell because in certain reference works only a single reading is given, and in two important cases the *yán* reading was chosen. Xú Kǎi 徐鍇 (920-974), who reconstructed the *Shuōwén jiězì* in the tenth century,

normally selected one pronunciation from the *Tángyùn* 唐韻 for each graph, and for 焉 he chose *yán* (有乾切 {ghan_{3bx}}), rather than *yān*. The *Zhōngyuán yīnyùn* 中原音韻 of 1324 similarly lists only one reading per character and it assigns *yán* to 焉.²² In some contemporary medium-sized Classical dictionaries *yán* and *yān* continue to coexist. In fact, *yán* survives in the two best Classical dictionaries of their size: *Dà cǐdiǎn* (1985:2849) and Wáng Lì et al. (2000:657-658). Though it remains a minority reading, it is surely still being spread to new generations of students.

4. The larger grammatical context

In order to make viable the hypothesis that 焉 is a contraction-ligature, we would be forced to presume that the motivation of the character was lost to mainstream literacy. Some breaks in continuity are inevitable in any written tradition—we certainly observe this in the existence of spelling pronunciations in the history of English—and all the more so with a script as phonologically opaque and imprecise as China's. Individual breaks in continuity do not of themselves imply discontinuity in the overall tradition of literacy (see discussion of the crypt-phonograph problem in Branner 2011a:108-117 & 2014). And for characters that are structurally ligatures but represent words other than contractions, there is a clear tendency to breaks of this kind (Branner 2011b:75). If 焉 does turn out to represent a contraction in some tradition separate from the mainstream—a possibility supported by the long absence of the graph in our excavated record and early competition (in the covenant texts) with forms where its compound structure was not evident—then a break in the transmission of its historical reading is quite plausible. In that case, it may well be that neither of the medieval readings can direct us clearly to the original word that motivated the graph. We are confronted with the familiar chasm between sound and writing in Chinese.

But even if 焉 is after all a ligature representing a contraction, it is one of an endangered species today. Ligatures abound in the Warring States excavated materials, but only a meager few are found in modern usage. Casual writing today, as on Internet forums and in text-messaging, certainly makes active use of contractions and other informalities. But they are not normally written with ligatures. Our contemporary

²² The *Zhōngyuán yīnyùn* contains no homophones at all, because it prescribes rhyming practice rather than describing a real oral language or prescribing educated reading pronunciation. *Yán*, as a final particle, might be considered to be in rhyming position, but that alone does not explain why the book restricts itself to a single reading per graph. Even the fact that it is intended for use in composing lyrics to be sung—singing obliterating tonal distinctions—does not fully explain this practice, since there are characters for which segmentally different readings coexist.

character set is static if huge, and so contractions are typically represented by loan graphs—borrowing an existing graph for some recognizable oral contraction, for example, Taiwan Mandarin *jiàng* 醬, apparently ‘sauce’ but actually the contraction of *zhèyàng* 這樣 ‘this way; of this sort’. The writing of regional and oral language in recent centuries has often turned to composite characters when regular forms are not available. But in bookish standard Mandarin these things have become exceptional. Of the few salient ligatures that appear in standard written Chinese today (甬, 歪, 尖, 夯, 尗, etc.; all portmanteaux), only 甬 remains bound to a plausible contraction that also survives in oral language, *béng* ‘there is no need to...’.²³ In a script subject to logographic forces, can a ligature correspond forever to an oral contraction and never succumb to fossilization? If 焉 is a ligature, then its semantic and phonological motivation, and even the number of readings it has, is indeterminate. But on balance, the simplest explanation at present is that 焉 has portmanteau structure reflecting the meaning of *yán*, while its use to write *yān* is a case of loan usage.²⁴

In their modern scarcity and phonetic indeterminacy, portmanteaux are much like ligatures. Both are non-standard composite characters of some antiquity but without a strong pedigree in the received canon. Those portmanteaux that have survived into modern standard Chinese writing have all proven unstable phonologically, becoming associated with different words over time. They do not appear in canonical texts or have an obvious phonological structure, either of which would tend to fix them to one

²³ The numerals 廿, 卅, and 卌, which remain in use on many calendars, are standardly read with fossilized syllables *niàn*, *sà*, and *xì*, no longer corresponding to contractions of living oral words *èrshí*, *sānshí*, and *sìshí* (Branner 2011a:98, n.27).

²⁴ It is beyond the scope of this paper to identify the word underlying interrogative *yān*. It is surely related to the two interrogatives *ān* (**ʔan*) 安 and *wū* (**ʔa*) 惡/烏, both ‘how, whither’, and the differences among them presumably involve some as-yet unidentified alternation. Although *yān* is saliently much like *ān*, there is at least one case of *yān* corresponding to *wū* 惡 in related texts from the received tradition:

禮有三本、天地者性之本也、先祖者類之本也、君師者治之本也、無天地焉生、無先祖焉出、無君師焉治 [There are three foundations of ritual. Heaven and Earth are the foundation of inborn nature; ancestors are the foundation of your kind; the ruler is the foundation of an orderly society. Without Heaven and Earth, how would you come into being? Without your ancestors, how would you go forth? Without the ruler, how would there be order?] (*Dà Dài Lǐ jì* 大戴禮記 1/42, “*Lǐ sān běn* 禮三本”; Wáng Pinzhēn 1983: 17).

禮有三本、天地者生之本也、先祖者類之本也、君師者治之本也、無天地惡生、無先祖惡出、無君師惡治 (*Xún zǐ* 荀子 19 “*Lǐ lùn* 禮論”; Wáng Xiānqiān 1988:349)

It may of course be that 焉 here is a simple error for *wū* 烏.

morpheme. An example in Branner (2011b) is 弄, attested first in Shànghǎi. This 弄 is associated mainly with the syllable *pá* in *páshǒu* 扒手 ‘pickpocket’. It is constructed as a portmanteau of *sān zhī shǒu* 三隻手 ‘three hands’, a slang word for ‘pickpocket’. However, Prof. Qiú Xíguī 裘錫圭 has pointed out to me (personal communication, February, 2012) that the Shanghainese word for “pickpocket” is not *páshǒu* at all. I can confirm that Xǔ & Táo (1997:297-298) document that word as [ts‘oŋ₃₃ sɿ₅₃], in which the crucial first syllable is a verb meaning ‘to stick out, extend; to infringe on’ and appearing in various compounds. ([sɿ₅₃] is common Chinese {手} ‘hand’, just as in *páshǒu*).²⁵ But the actual Shanghainese word that inspired 弄 is never mentioned in contemporary Mandarin dictionaries; *páshǒu* has completely unseated it there. One could ask for no better token of the phonetic transience of the portmanteau than the infringement on [ts‘oŋ₃₃ sɿ₅₃] by *páshǒu*.

Chinese characters lend themselves easily to games of semantic decomposition. The way in which they represent the words of spoken language is not simple! Did not the *zǐ* of Chǔ, in the twelfth year of Xuān *gōng* of Lǚ (596 B.C.E) argue against excessive displays of military triumph because “夫文、止戈爲武” [Where written graphs are concerned, “putting a stop to the halberds” forms ‘martial prowess’]?²⁶ Did not the strongman and poet Cáo Cǎo 曹操 (C.E. 155-220) write 合 ‘together’ on his cup of *arak* or *koumiss*, puzzling his aides until the clever Yáng Xiū 楊修 (175-219) explained that their lord was inviting them to “人噉一口” [each person take one mouthful]?²⁷ More even than their absence from canonical texts, it may be the indivisibility and opacity of ligatures like 焉 and 冊 that has led to their failure to propagate as a species.

²⁵ Prof. Qiú also took issue with my choice of “portmanteau” to describe these characters, observing that Lewis Carroll’s examples in *Through the Looking-Glass* (1960:270-273) are more like Chinese contractions than 弄. But “portmanteau” does not mean contraction in the Chinese sense; Carroll’s are meant to combine ideas impressionistically, and take their name from the real portmanteau, a kind of casual traveling bag in which various objects may be found jumbled together. I used Carroll’s coining in order to suggest the jumbling together of the words of the meaningful phrase that we can unpack from a single character.

²⁶ Chūnqiū Zuǒ zhuàn zhù (1987:744), “Xuān gōng 宣公” 12.2.

²⁷ Shìshuō xīnyǔ jiàojiān (1989:318), “Jiéwù 捷悟” 11.2.

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賴著不走的「焉」字問題： 口語、字讀必分之一例

林德威

紐約市立學院

兼 普林斯頓高等研究院

長期以來，「焉」字的構字原則雖不甚清楚，但近代學者多認為其所包含的兩個語素（*yān*、*yán*）為合音。本文主張這兩個語素都不是真正的合音。從現有的證據看來，對「焉」字的構造最經濟的解釋是，它純粹是非會意非合音的合文。

關鍵詞：構字原則，「焉」字，金守拙，合音，合文，非會意非合音的合文，溫縣盟書

Textual Criticism and the Turbulent Life of the *Platform Sūtra*^{*}

Morten Schlütter

University of Iowa

The *Platform Sūtra of the Sixth Patriarch* is one of the most widely known and beloved texts produced by Chinese Buddhism. However, what makes the *Platform Sūtra* especially interesting is the fact that uniquely among Chinese Buddhist texts it is extant in a number of editions that differ significantly from one another, spanning the eighth to the thirteenth centuries. Thus the *Platform Sūtra* is not just one single, stable text, but rather an amorphous textual entity that has gone through a number of manifestations. In this essay, I revisit an earlier study and in the light of recent research and textual finds discuss the different editions of the *Platform Sūtra* and what can be learned about their relationships with one another. Emphasizing the important role of the methodology of textual criticism, I present data that suggests how the different versions are related to each other, and discuss how we can proceed with our study of the text.

Key words: *Platform Sūtra*, Huinéng (638-713), Chán Buddhism, textual criticism

The *Platform Sūtra of the Sixth Patriarch* (Liùzǔ tánjīng 六祖壇經) is one of the most widely known and beloved texts produced by Chinese Buddhism. It is a scripture that has fascinated monastics, laypeople, and scholars alike for centuries, and today is available in translations into many European and Asian languages. It tells the dramatic story of how Huinéng 慧[惠]能 (trad. 638-713) became the Sixth Patriarch of Chán 禪 Buddhism, and contains Huinéng's sermonized teachings, his conferral of “formless precepts” (*wúxiàng jiè* 無相戒) on his audience, accounts of his encounters with disciples, and his protracted deathbed instructions. It is the only Buddhist text produced in China that is honored with the title of *sūtra* (*jīng* 經), otherwise reserved for the teachings of the Buddha.¹

^{*} I respectfully dedicate this essay to my colleague and friend South Coblin on the occasion of his seventieth birthday, in the hope he will find something of interest in it.

¹ Other Buddhist texts produced in China were also called *jīng*, but these were claimed to be translations of the words of the Buddha from Sanskrit; such texts are often referred to as apocryphal *sūtras*.

Modern scholarship has shown conclusively that the *Platform Sūtra* cannot be accepted as an actual record of the life and teachings of Huinéng, and that the text was produced well after the death of Huinéng who probably had no real connection with it. Virtually nothing is known for certain about Huinéng, and his prominence as the Sixth Patriarch of Chán seems to be entirely the result of the tireless efforts of the monk Shénhuì 神會 (684-758), who claimed to be Huinéng's disciple (although the two likely never met) and who clearly hoped to gain recognition as the Seventh Patriarch (Jorgensen 2012). Shénhuì himself was quickly forgotten by history, but Huinéng came to be universally accepted as the Sixth Patriarch and the ancestor to the entire subsequent Chán tradition. Thus, ever since the mid-ninth century, all members of the Chinese Chán school, together with those of the Korean Sōn and Japanese Zen schools, trace their lineages directly back to Huinéng.

A considerable body of scholarship on the *Platform Sūtra* has been produced by East Asian and Western scholars, most of whom have focused on the earliest version of the text, discovered in the early twentieth century in a hidden cave library at Dūnhuáng 敦煌 in western China (modern Gansu Province).² This research has yielded valuable insights on the eighth-century formation of Chán 禪 Buddhism, and new finds and methodologies promise to further expand our understanding of this period.³

But what makes the *Platform Sūtra* unique among Chinese Buddhist texts is the existence of a number of editions (spanning from the eighth to the thirteenth centuries) that differ conspicuously from one another. Thus the *Platform Sūtra* is not just one single, stable text, but rather an amorphous textual entity that has undergone several transformations and today is available to us in multiple distinct versions, the longest of which is almost double the length of the shortest. Notions about the persona of Huinéng and his teachings evolved significantly over time, and the *Platform Sūtra* changed accordingly. Thus, the *Platform Sūtra* does not merely throw light on the early formation of Chán, but its textual history also serves as a kind of laboratory that allows us to observe crucial diachronic changes and developments in Chán over a period of at least five centuries.⁴

In order to meaningfully address the historical and doctrinal development of the *Platform Sūtra* text, we obviously need to know how the different extant versions are related to one another. Several scholars have taken up this issue in various ways, and I myself published a study on the “genealogy” of the *Platform Sūtra* (Schlütter 1989). Yet

² On the discovery of the Dūnhuáng cave library see Schlütter (2012).

³ For an overview of recent scholarship on the Dūnhuáng *Platform Sūtra* see the essays in Schlütter & Teiser (2012). See also Jorgensen (2002).

⁴ I am currently working on a book that seeks to elucidate the historical development of Chinese Chán through an examination of the different versions of the *Platform Sūtra*.

despite several important discoveries in recent years and a renewed scholarly interest in the *Platform Sūtra* and its development, no consensus about the relationship among extant versions has emerged (for an overview see Jorgensen 2002), and flawed assumptions and inadequate methodologies have hampered much of the scholarship in this area. Most importantly, the methodology of textual criticism continues to be largely ignored, although my earlier work demonstrated that textual criticism is a crucial tool to gaining insight into the relationship among extant versions of the *Platform Sūtra*.

In this essay, I readdress the issue of what we can (and cannot) know about the relationship among different editions of the *Platform Sūtra*. My purpose is simply to establish a *stemma* that orders extant versions of the *Platform Sūtra* chronologically, and thereby facilitates the diachronic study of ideological developments in the text. Although this essay does not explore the contents of the *Platform Sūtra*, I conclude that as Chán Buddhism developed, older versions of the *Platform Sūtra* came to be regarded as incomplete and corrupted. Because of the text's importance as conveying the recorded teachings of the Sixth Patriarch, this situation seemed intolerable and the *Platform Sūtra* therefore had to be updated several times.

1. The methodology of textual criticism

As already stated, the most important, yet unfortunately in Chinese studies often overlooked, tool for studying different versions of a text and determining how they are related is the methodology of textual criticism.⁵ Textual criticism began as a “technique of restoring texts as nearly as possible to their original form” (Kenney 2009:676) and has been used extensively since the eighteenth century in textual traditions as diverse as New Testament studies, the works of Greek and Roman classical writers, Shakespearean plays, and so on. The basic premise of textual criticism is the principle that every time a text is copied by hand, re-carved, or re-set for printing, a textually unique version is created. That is, the person or persons involved in producing the edition invariably either intentionally or unintentionally introduce changes into the text. These changes range from a mistaken or omitted word, or a correction of what was judged to be a previous mistake, to extensive rephrasing or rewriting of the text. By conducting a word for word comparison of extant editions of the same text, the textual critic seeks to decide which of the variant readings are most likely to be original, and emends the text in order to restore it to the earliest and most authentic state possible. (Here, of course, it is crucial to have access to direct reproductions of the texts investigated). Various rules of textual criticism have developed over time, but they can only be considered guidelines and each

⁵ However, see Roth (1992, 1993), as well as Boltz (1984), all of which advance the methodology of textual criticism as it is relevant to Classical Chinese texts.

case must be treated as unique. Much of the logic of textual criticism is based on common sense. For example, the principle of *lectio difficilior* tells us that a more difficult, obscure, or imprecise reading must usually be judged to belong to an older version of a text, since it makes sense for an editor to wish to clarify the text he is editing, rather than the other way around. Likewise, if a passage appears as a note in one edition of a work, but in another edition appears as regular text, the first is more likely to reflect an older version, since a note can easily become incorporated into the main text, whereas it is unlikely that regular text would be relegated to a note.

Textual criticism is not an exact science, and scholars in the field have often been critical of one another's work. Even the very notion of a search for an *urtext* has also come under criticism (see e.g. Hobbs 1979, and for early China, Kern 2002). However, it remains a vitally important tool for determining the best readings in texts with multiple witnesses, even if the search for an *urtext* remains elusive. It is unfortunate that this methodology is not used more widely in Chinese Buddhist studies, and too often scholars working with multiple editions of a text fail to employ the logic of textual criticism. For example, it is important to realize that useful critical editions of texts that exist in multiple versions cannot be created by choosing the readings from each of the versions that make most sense to the scholar preparing the edition. Such a procedure creates an entirely new text, different from all previous versions, and so actually obscures rather than illuminates the history of the text.

In any case, the methodology and logic of textual criticism need not be focused on the search for an *urtext*, and can perhaps be even more fruitfully employed to help us better understand the relationships among different extant editions of a text. This is exactly what I attempted to do in my earlier work on the extant versions of the *Platform Sūtra*, and what I wish to further develop and demonstrate in this essay. In textual criticism this is referred to as the construction of a *stemma codicum*, a kind of textual family tree, and is often seen as the first task in the reconstruction of an *urtext*.⁶

For our purposes, in the study of the *Platform Sūtra* it is useful to draw a distinction between editions that have introduced major, and likely intentional, changes in the text, as opposed to those that have made only apparently unintentional or minor intentional changes. I thus use the term "edition" to refer to any instance of recopying, re-carving, or reprinting the text, and employ the word "version" to refer to an edition, or a group of editions stemming from the same work, in which the editor (here in a sense becoming co-author) has made major additions or omissions, or rephrased entire sentences, thereby creating a text which differs from other versions in substantial ways.⁷

⁶ On the stemmatic method, see Maas (1958) and Dearing (1974).

⁷ See the similar discussion in Roth (1993), which applies a more fine-grained approach to cases for which a greater number of exemplars of a text is available.

In this connection it should be pointed out that only tentative ideas about the history of a text and its editions can be formed on the basis of the bibliographical data attached to a text, such as prefaces and postscripts, names of compilers, or lists of donors. Although such information occupies a crucial part of any textual investigation, it can easily lead us astray, since prefaces and postscripts can be attached to editions with which they did not originate, a later editor may have chosen to retain or restore the name of an earlier editor and leave himself anonymous, and outside references to a text with a specific title may in fact refer to a text completely different from the work that today bears this title. Also, the fact that one edition is older than another does not necessarily mean that the text it conveys is more “original.” Thus any such information must be used with great care, and it is always necessary to conduct a word-for-word comparison of the texts under investigation, evaluating the evidence obtained independently of any bibliographical information.

2. The Dūnhuáng manuscripts of the *Platform Sūtra*

The version of the *Platform Sūtra* that was found at Dūnhuáng has received much more scholarly attention than any other version. This is unsurprising because it clearly represents the earliest version of the text available to us (although some scholars have disputed this, as discussed in the concluding section of this essay), and offers interesting clues to the formation of early Chán and the ideas initially ascribed to Huinóng.⁸

Considerable discussion has been devoted to the question of about what a presumed original first version of the *Platform Sūtra* may have looked like and who wrote it, as well who produced the Dūnhuáng version we have today. I will address these issues in future research, but for the purpose of the present essay, it is sufficient to say that although the Dūnhuáng version is no doubt the earliest available version of the *Platform Sūtra*, several clues indicate that an earlier version (or earlier versions) of the text must have existed.

At present three complete manuscript copies of the Dūnhuáng *Platform Sūtra* are extant, all with the dramatic title inscription: “*The Sūtra of the Perfection of Wisdom of the Supreme Vehicle of the Sudden Teaching of the Southern Tradition: The Platform Sūtra Preached by the Great Master Huinóng, the Sixth Patriarch, at the Dàfān Monastery in Sháozhōu*, in one scroll, including the bestowal of the formless precepts; recorded and compiled by the Disciple Fāhǎi, Spreader of the Dharma” (Nánzōng dùnjiào zuishàng dàshèng móhēbōrěbōluómì jīng Liùzǔ Huinóng dàshī yú Sháozhōu Dàfān sì shīfǎ tánjīng yījuàn, jiān shòu wúxiàng jiè hóngfǎ dìzǐ Fāhǎi jí jì 南宗頓教最

⁸ See the essays in Schlütter & Teiser (2012).

上大乘摩訶般若波羅蜜經六祖惠能大師於韶州大梵寺施法壇經一卷 兼受無相戒弘法弟子法海集記).⁹

For many years, the well-known manuscript Stein 5475 held in the British Library was the only known full manuscript copy of the *Platform Sūtra* from Dūnhuáng.¹⁰ Then, in the early 1990s, a second manuscript, now known as the “Dūnhuáng Museum Text” (*Dūnbó běn* 敦博本), was discovered in the basement of the Dūnhuáng museum and was published.¹¹ The text had been described earlier by the scholar Xiàng Dá (1957:368-369), but its whereabouts had since been unknown. Most recently, in 2011, yet a third Dūnhuáng manuscript was found in the Lǚshùn Museum in Liáoníng Province in China (the *Lǚshùn běn* 旅順本), and was subsequently published.¹² This text was previously only known from a few photographs from the 1930s, and had been presumed lost. The Lǚshùn manuscript appears with another text in the same hand that is dated 959 (Guō & Wáng 2011:108).¹³

In addition to these three complete manuscript copies, two manuscript fragments of the *Platform Sūtra* found at Dūnhuáng are now held at the Běijīng library.¹⁴ The first is just one page long, while the other fragment is much longer, and contains about a third of the text of the complete Dūnhuáng manuscripts.¹⁵

Preliminary examination of the editions and fragments of the *Platform Sūtra* found at Dūnhuáng indicates that all derive from the same text, and that likely none of them are directly based on another (Guō & Wáng 2011 compares the manuscripts, albeit with some mistakes). Since all are ultimately derived from the same text, they must be considered editions of the same version.

⁹ But see Anderl (2013) for a dramatically different interpretation of the title. I find Anderl’s analysis interesting, although at this point am unpersuaded by it.

¹⁰ A black-and-white reprint of the Stein 5475 manuscript is found in Yanagida (1976:1-47). High-resolution color scans of the manuscript have recently been made available by the International Dūnhuáng Project, at <http://idp.bl.uk> (search “S.5475”). An accessible edited version together with a translation appears in Yampolsky (1967/2011).

¹¹ Dūnhuáng museum call number 077-4. It has been published several times, first in Yáng (1993). A fine photographic reproduction appears in Huáng (2006), which collates it with Stein 5475.

¹² See the beautiful color reproduction of the manuscript in Guō & Wáng (2011).

¹³ The dating is ambiguous, as the date given is Xiǎndé 顯德 5, *jǐwèi* 己未 year, but Xiǎndé 5 is 958, while *jǐwèi* 己未 is 959. The zodiac name probably signifies the correct year.

¹⁴ See the description in Huáng (2007).

¹⁵ For the first, Huáng (2007) gives the call number as 北京圖書館有字 79 號殘片; it is reproduced in Lǐ & Fāng (1999:232). For the second, Huáng (2007) gives the call number as 北京圖書館岡字 48 號. For more discussion, see Tanaka (1991). This fragment corresponds to Stein 5475; CBETA, T. 48, no. 2007, pp. 338, c25 - 341, c2.

Most modern editions of the Dūnhuáng *Platform Sūtra* were prepared before the newer discoveries were made, and they thus rely exclusively on the Stein manuscript. However, since this manuscript has many obvious errors and lacunae it has usually been amended using a version of the *Platform Sūtra* found in Japan, known as the Kōshōji 興聖寺 edition (see e.g. Yampolsky 1967/2012). This turns out to be unfortunate, since (as discussed below) the Kōshōji text represents a much-edited later version, and does little to illuminate the original content of the Dūnhuáng *Platform Sūtra*. The new texts and fragments now available should permit the production of a critical edition that would bring us very close to their common source, but thus far, no editor has rigorously applied the principles of textual criticism in a comparison of the manuscripts to produce such a work.¹⁶

3. The Huixīn versions

Scholars first learned of an edition of the *Platform Sūtra* prepared in 967 by the monk Huixīn 惠昕 from a preface attached to the so-called Kōshōji edition of the *Platform Sūtra*, found in 1930s at a temple in Kyoto.¹⁷ Although the Kōshōji text is a printed edition, Huixīn's attached preface, as well as another added preface, are handwritten, and by mistake the two separate pieces have been merged into one. They were apparently copied from an unidentified source in 1599 by the Japanese monk Ryōnen 了然 (1559-1619) (Matsumoto 1944:101, Yampolsky 1967/2012:99).

Huixīn's short preface in the Kōshōji edition is entitled “*Liùzǔ tánjīng xù*” 六祖壇經序 [Preface to the *Platform Sūtra of the Sixth Patriarch*], and in it he writes that the old text of the *Platform Sūtra* was vexatious (*gǔběn wénfán* 古本文繁, which I take to mean corrupt and difficult to read) and students who first picked it up with delight soon came to dislike it. Huixīn then simply states that he divided the text into two fascicles and eleven chapters. The preface bears a cyclical date that Hu Shih identified as the year 967.¹⁸ It was written in a temple in Yōngzhōu 邕州 (present day Nánning in Guǎngxī Province), which was a culturally marginal area in the tenth century.

¹⁶ In addition to the Chinese manuscripts, several small fragments from a Tangut (Xīxià 西夏) translation of the *Platform Sūtra* exist. These fragments appear to have been based on a version of the *Platform Sūtra* very similar, but perhaps not identical, to the Dūnhuáng version. A translation of the fragments appears in Shī (1993:90-100). It is not possible to reconstruct the exact Chinese text from the Xīxià translations, and I do not include the Xīxià fragments in my current investigation.

¹⁷ A photographic reproduction of the Kōshōji edition is found in Yanagida (1976:49-66). An edited and annotated version appears in Nakagawa (1976).

¹⁸ Hu (1975:78). See also Yampolsky (1967:100, n. 28). Nothing further is known about Huixīn.

The second preface attached to the Kōshōji edition dates to the Sòng 宋 dynasty (960-1279); it was written by the scholar Cháo Zǐjiàn 晁子健 (d.u.) and is dated 1153.¹⁹ Here Cháo relates how while traveling in Sìchuān, he found a copy of the *Platform Sūtra* written in the hand of his ancestor Wén Yuán 文元. At the end of the copy Wén Yuán had written: “I am now eighty-one years old and have read [the *Platform Sūtra*] sixteen times.” Cháo states he later had this manuscript published. Hu Shih has shown that Wén Yuán was the famous scholar Cháo Jǐōng 晁迥 (951-1034), and that he turned eighty-one in 1031.²⁰

The Kōshōji edition is in two fascicles and eleven chapters, just like the edition Huixīn describes. It bears the simple title *Liùzǔ tánjīng* [*Platform Sūtra of the Sixth Patriarch*] and no compiler is named. One page is missing. It appears to be a reprinting of a Japanese *Gozan* 五山 edition from the Kamakura 鎌倉 period (1185-1333), and probably dates to the end of the Muromachi 室町 period (early 16th c.).²¹ What appears to be a bookcase reference carved on the plates of the Kōshōji edition has led scholars to believe that it was ultimately based on a Sòng canon edition, but none of the Sòng canon catalogues known today list a *Platform Sūtra*.²²

Several other editions of the *Platform Sūtra* have survived in Japan, all in two fascicles and eleven chapters. They are clearly closely related and it seems reasonable to make the working assumption that all are derived from Huixīn’s edition. However, as I show below, each of the extant versions preserved in Japan has been edited, and none is an exact copy of Huixīn’s edition. Textual comparison allows us to group them into three versions, according to the criteria described above.²³

3.1 Kōshōji version

Several Japanese editions of the *Platform Sūtra* are very close to the Kōshōji edition. First is the Kan’ei 寛永 edition. No title or information appears in front of the text, however after each of the fascicles the title *Liuzu tanjing* is given. No prefaces or postscripts are attached, but at the end of the text a note gives the year Kan’ei 8 (1631) and the name of the Japanese publisher.²⁴ The *Hōbōdankyō kōkan* 法寶壇經肯款 by

¹⁹ Chāng (1975:3.1947) gives a list of references to him.

²⁰ See Hu Shih (1975).

²¹ See Ui (1941:3.60); and Komazawa daigaku zenshū kenkyūkai (hereafter *Enō kenkyū*) (1978:407). On *Gozan* editions, see Komazawa daigaku nai zengaku daijiten hensanso (hereafter *Zengaku daijiten*) (1978:341a).

²² *Enō kenkyū*, p. 408, and *Zengaku daijiten*, p. 1142b. See also Ishii (1979:78b).

²³ Here I discuss only editions that I have been able to examine; my discussion in Schlütter (1989) touches on a few other editions.

²⁴ Held in the Komazawa University library, call no. 121:1-16. It is included in Ishii (1980, 1981).

Ekijun 益淳 from 1697 lists the Kan'ei edition, which it identifies as the reprint of a Chinese Sòng edition from the Qīngyuán 慶元 period (1195-1200).²⁵ The second edition is the Kanazawa Bunko 金沢文庫 manuscript. Only three fragments, totaling eight pages, of this edition are still extant.²⁶ One of these fragments contains the beginning of chapter three, the title of which is identical to that of the same chapter in the Kōshōji edition. Yanagida Seizan dates the Kanazawa manuscript to the Kamakura period.²⁷

Close comparison shows that the Kanazawa fragments are strikingly similar to the corresponding passages of the Kōshōji edition. Furthermore, when the texts of the Kan'ei edition and the Kōshōji edition are compared they prove to be remarkably alike. Thus these three texts, according to the formula outlined earlier, must be considered to be different editions of the same version, referred to here and below as the Kōshōji version.

3.2 Daijōji version

Another major version of the *Platform Sūtra* that ultimately must derive from that of Huìxīn is represented by the Daijōji 大乘寺 edition, discovered at the Sōtō Zen 曹洞禪 temple Daijōji in Kaga 加賀 in the 1930s.²⁸ It is a manuscript copy bearing the title *Sháozhōu Cáoxī shān Liùzǔ shī tánjīng* 韶州曹溪山六祖師壇經 [*The Platform Sūtra of the Master, the Sixth Patriarch from Mt. Cáoxī in Sháozhōu*].²⁹ No compiler is given. The layout of its eleven chapters corresponds to that of the Kōshōji edition, but the chapter titles vary somewhat.³⁰ The text has a lacuna at the end where Huìnéng's last *gāthā* and a few sentences following it are missing. The Daijōji text does not include Huìxīn's preface; instead is attached a preface by a Bhikṣu Cúnzhōng 存中 (d.u.) from Fútáng 福唐, in present day Fújiàn 福建 Province. The preface is dated 1116, and provides little information beyond stating that the edition is a second printing. At the end of the Daijōji manuscript is a note saying "Written by Dōgen." Dōgen 道元 (1200-1253) was the founder of the Japanese Sōtō 曹洞 sect of Zen who travelled in China 1223-1227/1228, but it is more likely that the real copyist was his disciple Tettsu Gikai 徹通義介 (1219-1309), the founder of the Daijōji as a Sōtō temple, who may have made the copy during his stay in China from 1259 to 1263.³¹

²⁵ Quoted in Ui (1941:3.60), and *Enō kenkyū*, p. 408b.

²⁶ A photographic reprint is found in Yanagida (1976:395-400).

²⁷ See the table that appears at the beginning of Yanagida (1976).

²⁸ The manuscript is photographically reproduced in Yanagida (1976:89-113). A printed edition appears in Yáng (1993:76-111).

²⁹ Cáoxī 曹溪 is also read "Cáoqī."

³⁰ See Ishii (1979:91-111) for a list of the various chapter titles.

³¹ See Ui (1941:3.61). On Gikai, see *Zengaku daijiten*, p. 194a. Dōgen was critical of the *Platform Sūtra* as he knew it, and rejected it as the words of Huìnéng; see *Shōbōgenzō* 91 (*Shizen Biku*).

The Tenneiji 天寧寺 edition, now in the Tōhoku University library, belongs with the Daijōji edition.³² It is a manuscript copy, but gives no indication of who the copyist was. Its title and chapter headings are the same as those of the Daijōji edition, and again no compiler is given. At the end of each fascicle two seals are stamped, in a style often found in works from the Kamakura period.³³ Like the Daijōji edition, the Tenneiji edition includes the 1116 preface by Cúnzhōng. An additional preface, written in a hand different from the rest of the text and signed by the Japanese monk Hakuei Egyoku 白英惠寶, appears before Cúnzhōng's piece. In this preface, dated 1747, Egyoku states the edition comes from the library of the Kinzan Tenneiji 金山天寧寺 and that it differs from the version of the text that was otherwise circulating in his day. He also notes that the text of this edition does not depart from that of the Daijōji edition by as much as a word, and that he replaced missing parts using the Daijōji manuscript.³⁴

A comparison of the Daijōji and Tenneiji editions shows that the texts are indeed very close to one another, and each individual discrepancy rarely involves more than one character.³⁵ In addition to these minor differences, the Daijōji and the Tenneiji differ conspicuously in their lists of the Indian patriarchs. Here the Tenneiji, like other two-fascicle editions of the *Platform Sūtra*, follows the list of names found in the *Dūnhuáng Platform Sūtra*, while the Daijōji text has the names found in the *Bǎolín zhuàn* 寶林傳 (801), the list that later became universally accepted.³⁶ We may surmise that the copyist of the Daijōji manuscript changed the list of patriarchs from the original to bring it into compliance with what had become orthodox. Setting aside this difference, the two editions are all other respects sufficiently similar to be considered editions of the same version, and it is likely both were copied from a copy of Cúnzhōng's edition since both have his preface.

3.3 Shinpukuji version

The Shinpukuji 眞福寺 edition is the most recently discovered two-fascicle manuscript copy of the *Platform Sūtra*. It was named after the Shingon 真言 temple in the library of which it was found, and was first described and made available in 1976 by

³² A photographic reproduction of the manuscript appears in Yanagida (1976:67-86). See Shiina (1975) for discussion of this edition.

³³ See Shiina (1975:292b).

³⁴ He is obviously referring to about 800 characters, which are in his handwriting and occur at the beginning of the second fascicle.

³⁵ I have counted about 90 readings in which they differ. In most of these cases the Tenneiji readings appear to be miswritten characters, as all the other editions agree against it.

³⁶ See Yampolsky (1967/2012:47-49).

Ishii Shūdō.³⁷ The Shinpukuji edition has the same title as the Kōshōji edition, *Liùzǔ tánjīng* [*Platform Sūtra of the Sixth Patriarch*], but its chapter headings are almost identical to those of the Daijōji and the Tenneiji editions. Like the Kōshōji version, the Shinpukuji version includes Huìxīn's 967 preface that is here entitled “*Sháozhōu Cáoxī shān Liùzǔ tánjīng xù*” 韶州曹溪山六祖壇經序 [Preface to *The Platform Sūtra of the Master, the Sixth Patriarch from Mt. Cáoxī in Sháozhōu*]; like the other two-fascicle editions no compiler is given. The text also has a short postscript by Zhōu Xīgǔ 周希古 (d.u.), dated 1012. In this postscript, the title of the *Platform Sūtra* is given as *Cáoxī Liùzǔ dàshī tánjīng* 曹溪六祖大師壇經 [*The Platform Sūtra of the Great Master, the Sixth Patriarch from Mt. Cáoxī*], and the names of three otherwise unknown people involved in its publication are mentioned. Little is known about Zhōu Xīgǔ, but it appears that he was from Fujian, and received his *jìnshì* 進士 degree in 988.³⁸ Ishii Shūdō proposes that the manuscript is probably from the Nambokuchō period 南北朝 (1336-1392) or the late Kamakura period.³⁹

Comparison of the Shinpukuji version with the other two-fascicle texts reveals that it differs substantially from the others, and we must conclude it is the only edition of the version it represents.

3.4 Analysis of the Huìxīn versions

Let us now turn to an analysis of the different two-fascicle eleven-chapter editions, using the methodology of textual criticism. The process has been greatly facilitated by an edition published by Ishii Shūdō (1980, 1981). Using the Shinpukuji as his basis, he has prepared a varioum edition of the *Platform Sūtra*, listing all differences among the Kōshōji, the Kan'ei, the Shinpukuji, the Daijōji, and the Tenneiji texts. In addition, he has also inserted the text of the Dūnhuáng manuscript (S5475) for easy reference. Since I have found this edition extremely convenient and reliable, I use it for reference in the following, calling it the “Ishii edition.”

It is not practicable here to undertake a full textual analysis to establish the most authoritative readings of the texts of the Kōshōji /Kanazawa /Kan'ei version and the Daijōji /Tenneiji version, nor is it necessary for our investigation. In the following I take the Kōshōji edition as the representative of the Kōshōji /Kanazawa /Kan'ei version, and use the Daijōji edition as representative of the Daijōji /Tenneiji version, apart from its list of Indian patriarchs, for which the Tenneiji edition is used.

³⁷ Ishii (1979:91-112). No direct copy of the manuscript has been published, but I am grateful to Professor Ishii for having made a photocopy available to me.

³⁸ Chāng (1975:2.1476). See also Ishii (1979:78b-79a).

³⁹ Ishii (1979:75b).

This, then, leaves us with three different versions of the *Platform Sūtra* in two fascicles and eleven chapters to compare: the Kōshōji, the Daijōji, and the Shinpukuji. Despite their differences, 70 to 80% of the text of these three versions is identical, and they are undoubtedly closely related. Opposed to this we find the Dūnhuáng version, which, although it contains largely the same material and follows a similar outline, is considerably shorter and often less detailed than the two-fascicle editions, and seldom corresponds with them exactly in wording. This substantiates the view, held by several scholars, that all the two-fascicle works ultimately stem from the same edition and that the Dūnhuáng manuscript conveys an earlier and less developed version of the text.

Examining the three versions, the following relevant observations can be made:⁴⁰

1. a.) The Kōshōji and the Shinpukuji in about 210 cases have readings that agree against the Daijōji. Most differences affect both meaning and style.
1. b.) The Daijōji and the Shinpukuji in about 430 cases have readings that agree against the Kōshōji. Again, most differences affect both meaning and style.
1. c.) The Kōshōji and the Daijōji in about 75 cases have readings that agree against the Shinpukuji. Almost all of these differences appear to be copyist errors in the Shinpukuji, usually concerning single words, and few affect meaning and style.
1. d.) In about 40 instances the Kōshōji, the Daijōji and the Shinpukuji each have their own readings and do not agree with any of the others. In most of these cases, the readings in the Shinpukuji seem to be copyist errors.

Furthermore, when the Kōshōji, Daijōji, and Shinpukuji versions are compared to the Dūnhuáng version, we observe the following:

2. a.) The Kōshōji has several readings that are close to the Dūnhuáng, against the Daijōji and the Shinpukuji which then coincide.⁴¹
2. b.) The Daijōji also has several readings that clearly are close to the Dūnhuáng, against the Shinpukuji and the Kōshōji which then coincide.
2. c.) The Shinpukuji has no readings that are close to the Dūnhuáng, against the Daijōji and the Kōshōji which then coincide.

Finally, the following may be noted:

3. a.) In at least one instance in which all three texts differ, the Kōshōji is closer to the Dūnhuáng than is the Daijōji or the Shinpukuji.

⁴⁰ Several examples illustrating these points appear in Appendix A of Schlütter (1989:104-113).

⁴¹ Here I use the word 'close' as passages may not be word-for-word identical. However, the texts are sufficiently similar in wording that it is clear that their readings are related.

3. b.) In at least three instances in which all three texts differ, the Daijōji is closer to the Dūnhuáng than is the Kōshōji or the Shinpukuji.

3. c.) In at least two instances in which all three texts differ, the Shinpukuji is closer to the Dūnhuáng than is the Kōshōji or the Daijōji.

It is possible that other relevant observations can be made, but any attempt to draw conclusions about the relationships among the two-fascicle editions, as well as their relationship to the Dūnhuáng and Huixīn editions, must take these points into consideration, and any theory must be able to explain them.

Let us now turn to a *stemma* that has been proposed by Ishii Shūdō, who was the first to describe and publish the Shinpukuji text. Professor Ishii suggests that Shinpukuji is the closest of the three to the Huixīn edition and that it is based on the Zhōu Xīgǔ edition, which also became the basis for the Daijōji and the Tenneiji editions through Cúnzhōng's edition, whereas the Kōshōji derived from the Huixīn in a separate line.⁴²

In this *stemma*, we would expect the Kōshōji and the Shinpukuji texts to sometimes side against the Daijōji text (1. a. above), but more often we would expect the Daijōji and Shinpukuji to side against the Kōshōji (1. b.), which is indeed exactly what we find. We would also expect some cases of the Kōshōji and the Daijōji texts siding against the Shinpukuji (because the editor of the Shinpukuji would have at least made some changes to Zhōu Xīgǔ's edition), which again is what we observe (1. c.). Furthermore, also conforming to our data, in some cases the Kōshōji text is closer to the Dūnhuáng than to the Shinpukuji and Daijōji (2. a.), but we have no cases in which the Shinpukuji text is closer to the Dūnhuáng against a common reading in the Kōshōji and Daijōji (2. c.). The only cases in which the Shinpukuji text is closer to the Dūnhuáng text than to the two others are those in which all three differ, which again we do find in a few cases (3. c.).

In all these ways, this *stemma* seems to fit our textual data perfectly. However, there is one problem: as stated above, everything that is common to both the Kōshōji and Shinpukuji editions must have originated with Huixīn's edition, and any reading that is close to the Dūnhuáng must also have originated with the Huixīn edition. Therefore, in the *stemma* above, it should never be the case that the text of the Daijōji has a reading that is close to the Dūnhuáng text against a common reading in the Kōshōji and the Shinpukuji texts. But, in fact, we do observe several such instances (2. b.). This would seem to invalidate the *stemma*.

Indeed, it was this very observation that led me to reject Ishii's *stemma* in my earlier article. Instead, I favored an interpretation of the data that argued that the Shinpukuji text could have been based on both the Kōshōji and the Daijōji; that is, the editor of the Shinpukuji had access to both of the other texts, and chose in different cases to either

⁴² Ishii (1979:80).

follow one or the other. While that scenario does fit the observable facts, I no longer believe that it is likely to have been the case. A less complicated explanation is that the editor of the Daijōji text's ancestor, probably Cúnzhōng or perhaps the editor of the text Cúnzhōng used, must have had access to at least a fragment of a text that was similar to the Dūnhuáng version, which he consulted together with the Zhōu Xīgǔ edition. It seems likely that it was only a fragment of the first part, because all the Dūnhuáng readings in question are found in the first section of the Daijōji (through sec. 10 in the Ishii edition). We cannot determine what text Cúnzhōng or his predecessor used, only that it was similar to the Dūnhuáng text. Thus, with some modification, Professor Ishii's *stemma* appears to be essentially correct, and can be shown this way:

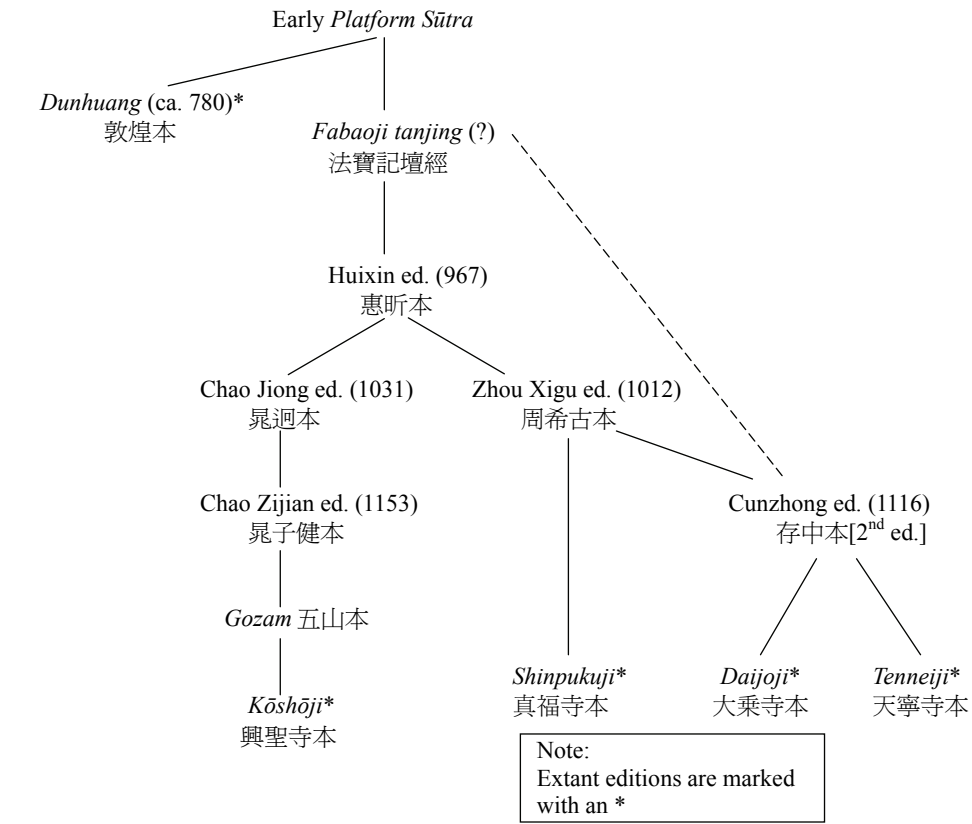


Figure 1

It should be noted that once we recognize that at least one editor must have used more than one edition in producing his own edition, we are dealing with what in textual criticism is called “contamination,” and this then opens up a whole host of different

possible scenarios. However, most of these are not very probable and I will not go over them here.⁴³

The Zhōu Xīgǔ edition must have been fairly close to Huixīn's edition but it was not identical to it. This is shown by the fact that some Kōshōji readings are closer to the Dūnhuáng version, against coinciding readings in the Daijōji and the Shinpukuji versions. Common readings in the Daijōji and Shinpukuji must have come from Zhōu Xīgǔ's edition, but the Dūnhuáng readings in the Kōshōji must have been derived from from the Huixīn edition.

Since Huixīn states that he divided the text into two fascicles, he probably worked from a one-fascicle edition, and scholars have assumed that this was the Dūnhuáng version. Similarities between Huixīn's edition and the Dūnhuáng version indicate clearly that the text he used in many ways did resemble the Dūnhuáng text. However, internal evidence suggests that Huixīn cannot have relied on an actual copy of the Dūnhuáng version, and other clues indicate that the text he used differed from it in significant ways.

Thus toward the end of the *Platform Sūtra*, Huinóng offers a veiled prediction of the appearance of Shénhuì as the defender of his teachings, and in the Dūnhuáng version, Huinóng simply says that twenty years from now, when evil teachings have become rampant, someone will come forward to establish the correct and false in Buddhism at the risk of his life. However, the Huixīn edition is more elaborate and detailed; in it Huinóng states that the person who would restore his Dharma after twenty years would be from Nányáng *xiàn* 南陽縣 (deleted in the Kōshōji text) and that he would propagate it in the Luòyáng 洛陽 area.⁴⁴ The extra information in the Huixīn edition makes it much clearer that the prediction points to Shénhuì, who lived at a monastery in Nányáng and who began his crusade in Luòyáng in 730. But by the time Huixīn compiled his version in 967, Shénhuì's role in establishing Huinóng as the Sixth Patriarch had been largely forgotten, and it is highly unlikely Huixīn would have added such details. It must therefore have been present in the text (or one of the texts) that Huixīn used for his edition.

Also important in this connection is how the transmission of the *Platform Sūtra* itself is described differently in the Dūnhuáng and Huixīn versions. The Dūnhuáng version says that the text's compiler, Fāhǎi 法海, at his death entrusted the *Platform Sūtra* to his fellow disciple Dàoji 道際 (in Stein 5477 written 道際), who at his death passed it on to his disciple Wùzhēn 悟真, who "is now transmitting the Dharma at the Fǎxīng 法興 monastery in Cáoxī." Except for Fāhǎi, none of the masters in this lineage are known from other sources, and Fāhǎi's "fellow disciple" Dàoji is not among the ten disciples of Huinóng listed in the Dūnhuáng *Platform Sūtra*. However, the parallel passage in Huixīn's edition has it that when Fāhǎi passed away he transmitted the

⁴³ See Schlütter (1989) for discussion of various possible scenarios.

⁴⁴ Ishii edition, sec. 58, lines 6-7.

Platform Sūtra to Zhidào 志道, who transmitted it to Bǐ'àn 彼岸, who transmitted it to Wùzhēn 悟真, who transmitted it to Yuánhui 圓會. Nothing further is said about Yuánhui.⁴⁵ Zhidào is indeed mentioned in all the versions of the *Platform Sūtra* as one of Huinóng's ten main disciples, although the other masters in the lineage are otherwise unknown. The more awkward lineage in the *Platform Sūtra* is clearly the older of the two, if only because the Huixīn version adds several more people. It also seems the lineage in the Huixīn version has been “normalized” by having Fāhǎi transmitting the text to a fellow disciple who is mentioned in the text. In any case, it is again extremely unlikely that the expanded version of the lineage originated with Huixīn himself, since at his time the transmission of the *Platform Sūtra* was almost certainly not an issue, and in any case the lineage described is too short to have had direct relevance for Huixīn's contemporaries. Rather, this passage was probably retained by Huixīn from the edition he used, and thus provides further indication that this text was not identical to the Dūnhuáng version. This edition would likely have been produced later than the Dūnhuáng version, judging by its longer lineage. It is thus possible that a number of the changes to the text of the *Platform Sūtra* that appear to have been introduced by Huixīn were already present in the version he used, and various indications suggest that this text was an early version of the *Platform Sūtra* known as the *Fābǎo jì tánjīng* 法寶記壇經 [*Platform Sūtra of the Dharma Treasure Record*].⁴⁶

4. The longer *Platform Sūtra* editions

For most of the history of the *Platform Sūtra*, the only editions in circulation belonged to what I here call the longer version, which first appeared in the thirteenth century under the title *Liùzǔ dàshī fābǎo tánjīng* 六祖大師法寶壇經 [*Platform Sūtra of the Dharma Treasure of the Great Master, the Sixth Patriarch*]. Many different editions of the longer version are extant, almost all of them in one fascicle and ten chapters. They are considerably longer than either the Dūnhuáng version or the extant two-fascicle editions, and contain many new stories about Huinóng and his encounters with disciples and others, as well as much other material that does not appear in the Dūnhuáng or Huixīn versions. Editions of the longer version came to enjoy great popularity, and it

⁴⁵ Ishii edition, sec, 65, line 1-2.

⁴⁶ A text with *Fābǎo jì tánjīng* in the title is listed by the Japanese monk Ennin 圓仁 (794-864+) among the books he brought back from China in 847, and this was also the title of the version of the *Platform Sūtra* known in Korea until the 14th century. See Jorgensen (2002:416-417). It is also mentioned by Muchaku Dōchū 無着道忠 (1653-1744), who implies that his copy was dated to 826, see Nakagawa (1976:237). I plan to treat the *Fābǎo jì tánjīng* in greater detail in the future.

eventually completely forced other versions out of existence in both China and Korea, and effectively in Japan as well.

The relationship between various extant longer editions is complex, many signs point to contamination, that is, editors having used multiple texts as the basis for their own edition.⁴⁷ However, all the longer editions of the *Platform Sūtra* appear to stem from one of two editions that were first published in the early Yuán 元 dynasty (1271-1368), known as the Déyì 德異 and Zōngbǎo 宗寶 editions after their presumed compilers.

The Zōngbǎo edition came to dominate in China, and it is also the edition included in the Japanese modern Buddhist canon, the *Taishō Daizōkyō*.⁴⁸ The Taishō edition of the *Platform Sūtra* is based on an edition from the Míng 明 (1368-1644) dynasty kept in the Japanese Pure Land temple Zōjōji 増上寺, and is in one fascicle and ten chapters. The title of the text is given as *Liùzǔ dàshī fǎbǎo tánjīng* 六祖大師法寶壇經 [Platform Sūtra of the Dharma Treasure of the Great Master, the Sixth Patriarch] and the monk Yuán-dynasty monk Zōngbǎo 宗寶 (d.u.) is listed as the compiler. At the very end of the text is included a postscript by Zōngbǎo, who states that he had in his possession three different editions of the *Platform Sūtra*, each with its own faults and merits. He corrected mistakes, filled out lacunae, and added material about the disciples' encounters with Huinég. Zōngbǎo then relates how an official, identified as Yúngōng Cónglóng 雲公從龍 (d.u.),⁴⁹ came by his room and saw his edition of the *Platform Sūtra*, and then ordered printing blocks for it to be carved.⁵⁰ The postscript is dated Summer 1291, and signed “Shì Zōngbǎo of Nánhǎi 南海釋宗寶.” Nánhǎi, of course, was the place in south China (modern Guǎngzhōu area) where Huinég supposedly lived before he went to see the Fifth Patriarch.

Zōngbǎo's edition of the *Platform Sūtra* also contains a preface by the monk Méngshān Déyì 蒙山德異 (1231-?), as well as a eulogy to the *Platform Sūtra* by the famous scholar-monk Qìsōng 契嵩 (1007-1072).⁵¹ This is rather confusing, since both Déyì and Qìsōng are associated with their own editions of the *Platform Sūtra*.

The Déyì edition is known from the preface by Déyì dated Spring, 1290, entitled “*Liùzǔ dàshī fǎbǎo tánjīng xù*” 六祖大師法寶壇經序 [Preface to the Platform Sūtra of the Dharma Treasure of the Great Master, the Sixth Patriarch]. In his preface, Déyì complains that later generations had abbreviated the *Platform Sūtra* and thus had made it impossible to know the complete teachings of the Sixth Patriarch. But, Déyì says,

⁴⁷ For a description of a number of the editions, see Ui (1941:1.1-172).

⁴⁸ T. 48, pp. 345-65. A fine English translation of the whole text with all its attached materials is found in McRae (2000b).

⁴⁹ Otherwise unknown.

⁵⁰ T. 51, 364c.

⁵¹ T. 48, p. 345, c8-346, a7 and p. 346, a10-347, c17.

when he was young he saw an old edition and, after seeking it everywhere for more than thirty years, he obtained a complete text through the worthy Tōng 通 (d.u.).⁵² He then had it published at the Xiūxiū Chán Refuge 休休禪庵 in Wúzhōng 吳中 (near present-day Sūzhōu 蘇州).⁵³

Although Déyì's preface is found attached to most editions of the longer *Platform Sūtra*, certain editions have only his preface, and neither have Zōngbǎo's postscript nor list Zōngbǎo as compiler. These editions differ from the one attributed to Zōngbǎo in certain other ways, and are therefore considered to have been prepared by Déyì. The earliest such edition we have evidence of is a Korean one, which according to its postscript was published in Yányòu 延祐 3 (1316).⁵⁴ The Yányòu edition begins with the preface by Déyì; then, the title of the *Platform Sūtra* is given as *Liùzǔ dàshī fǎbǎo tánjīng* (same as that of the Zōngbǎo edition) and "the disciple Fǎhǎi" is listed as the compiler. After this follows a 'Brief Preface' understood to be composed by Fǎhǎi. Then comes the main body of the text, divided into ten chapters. The chapter titles are quite different from those of the *Taishō* edition, and the chapter divisions are somewhat different as well.

When the Zōngbǎo and the Déyì editions are compared, we can readily observe that they both convey what is basically the same text, and, in spite of some obvious differences, are close enough to be considered editions of the same version. Given that they seem to have been compiled just within a year of each other in very different parts of China, it is unlikely that one is based on the other, a conclusion also supported by other evidence, discussed below. We can conclude that the two editions must ultimately be based on the same single version of the *Platform Sūtra*, which I will call the "ancestral longer version."

When the text of the longer version (that is, the Zōngbǎo and Déyì editions) is compared with each of the shorter versions, it quickly becomes clear that it is closely related to the Kōshōji version, while no direct influence from the Dūnhuáng, Daijōji, or Shinpukuji versions is detectable. About 90% of the text of the Kōshōji occurs almost word for word in the longer versions, although the material has been completely rearranged.⁵⁵ It seems quite likely that this source text was the Qīngyuán-period (1195-1200) printed edition of the Kōshōji version mentioned by Ekijun (see above).

The fact that an edition of the Kōshōji version served as the primary source for the

⁵² Nothing further is known about this person.

⁵³ According to Ui (1941:3.13).

⁵⁴ It was reproduced and described in by Ōya Tokujō; see Ōya (1935:1-29). The text of the Yányòu edition follows immediately after Ōya's article. For a discussion of the identification of the Déyì edition, see Lǐ (1935:483-490).

⁵⁵ For detailed treatment, see Schlütter (1989:76-94).

compiler of the ancestral longer version of the *Platform Sūtra* is an extremely important point that unfortunately has been completely overlooked in other studies, which demonstrates the need for a character-by-character comparison of different versions of a text if we wish to understand how they relate to one another.

However, the Kōshōji version of the *Platform Sūtra* furnished only a portion of the text of the longer versions, which contain much additional material. Close word-by-word comparison shows that, by far, the most important source of this extra material was the seminal Chán transmission-line history, the *Jīngdé chuándēng lù* 景德傳燈錄 [Record of the Transmission of the Lamp from the *Jīngdé* era] from 1004.⁵⁶ The *Chuándēng lù* especially supplied many stories about Huìnéng's encounters with monks who came to be considered important disciples in the Sòng and later, but who do not appear in earlier versions of the *Platform Sūtra*. This was first noted long ago by Ui Hakuju (1941:3.34-44), but has since received little attention. Yet material from the Kōshōji edition and the *Chuándēng lù* together accounts for over 90% of the text of the longer *Platform Sūtra*. Other minor influences on the longer *Platform Sūtra* appear to come from the 1183 *Zōngmén liándēng huìyào* 宗門聯燈會要 [Essentials of the United (Records of the Transmission of the) Lamps of our School],⁵⁷ and the 952 *Zútáng jí* 祖堂集 [Anthology from the Halls of the Patriarchs].⁵⁸

Without any doubt, we are dealing with borrowings from the *Chuándēng lù* by the longer *Platform Sūtra*, and not the reverse. This is attested to by the fact that whenever the longer *Platform Sūtra* uses material from the Kōshōji, it deviates from the *Chuándēng lù*, even if other parts of the passage are identical to the *Chuándēng lù*. That is, the compilers of the longer *Platform Sūtra* first followed the Kōshōji version and then supplemented it with material from the *Chuándēng lù*. If the compilers of the *Chuándēng lù* had used the *Platform Sūtra* as their source, they could not have consciously avoided passages that originally appeared in the Kōshōji text. This confirms that the compiler of the ancestral longer *Platform Sūtra* used the *Chuándēng lù* together with an edition like the Kōshōji to form his own text.

When we examine the relationships between the texts of the Kōshōji and the *Zōngbǎo* on one hand, and the Kōshōji and the *Déyì* on the other, we can observe that in several ways the *Déyì* is closer to the Kōshōji than is the *Zōngbǎo*. The most obvious example is the chapter titles, which in the *Déyì* are often similar to Kōshōji, but are completely different in the *Zōngbǎo*. When the texts of the *Déyì* and *Zōngbǎo* differ, the *Déyì* is usually closer to the Kōshōji than is the *Zōngbǎo*. However, this is not

⁵⁶ T. 51, pp. 196-467. The preface of the work is dated 1004, but indications are that it was not published until 1009. See Ishii (1987:19) for this date.

⁵⁷ In *Dai Nihon zokuzōkyō* (hereafter abbreviated ZZ), 2b, 9, 3-5.

⁵⁸ In Yanagida (1984).

always so: in a handful of cases the *Zōngbǎo* is closer to the text of the *Kōshōji* than is the *Déyì* (Schlütter 1989:92). We therefore must conclude that both the *Zōngbǎo* and the *Déyì* are independent editions derived from a common source. This common source must have contained everything that is found in both the *Zōngbǎo* and *Déyì* texts, together with the features of each that are close to the *Kōshōji* version. As the *Déyì* has more features that are close to the *Kōshōji* than the *Zōngbǎo* does, it must be closer to the original source and perhaps was very much like it. After all, *Déyì* simply claims to have acquired an old edition that he had published, while *Zōngbǎo* talks about extensive editing based on three different versions, narrating how he added to and deleted from them, and filled in stories of the disciples' encounters with the master. This last item was, as just described, one of the main additions the longer version made to the *Kōshōji* text. However, if *Zōngbǎo* really was the editor of the edition associated with him, then we must dismiss his claims. Even if he introduced more alterations than did *Déyì*, the changes he made can only have involved new chapter titles, some rearrangement of chapter divisions, and fairly light editing of the text.

5. Qīsōng's *Liùzǔ fǎbǎo jì* 六祖法寶記

The relatively few scholars who have concerned themselves with the question of identifying the ancestral edition to the longer version of the *Platform Sūtra* have generally assumed that it was the one prepared by the famous Sòng-dynasty monk Qīsōng. However, the data presented above indicates that this scenario is very unlikely.

Qīsōng's edition is now lost, but it is known from a preface by the official Láng Jiǎn 郎簡 (d.u.), included in the *Tánjīn wénjí* 潭津文集 compiled by Qīsōng himself.⁵⁹ The preface is entitled “*Liùzǔ fǎbǎo jì xù*” 六祖法寶記序 [Preface to the *Dharma Treasure Record of the Sixth Patriarch*]. In it, Láng complains that common people had added to and deleted from the words of the Patriarch, and made the style so vulgar and entangled (*bīlǐ fánzá* 鄙俚繁雜) that the text could not be trusted. Láng then reports that he approached Qīsōng, who had written a piece in praise of the *Platform Sūtra*, and told Qīsōng that if he could correct it, he, Láng, would pay for its publication. Two years later, Qīsōng acquired an “old Cáoxī edition,” edited it, and divided it into three fascicles, whereupon it was published. The preface is dated 1056.

However, if Qīsōng's edition was the ancestral long version of the *Platform Sūtra*, then as we have seen, he must have used an edition of a text like the *Kōshōji* as his source. But this text was probably first published in 1153, the year Cháo Zǐjiàn's preface is dated, since Cháo's preface probably does in fact refer to the ancestor of the

⁵⁹ For references to Láng Jiǎn's biography, see Chāng (1975:3.1804). For the text of the preface, see Qīsōng, *Tánjīn wénjí*, T. 52, p. 703b-c.

Kōshōji edition. Of course, it may be that the text was in circulation earlier: Cháo Zǐjiàn's ancestor Cháo Jiǒng could have published his edition in the years before or after 1031 or, since he does not say anything about editing the text, he may simply have obtained an edition prepared by someone else at an earlier point. But Cháo Zǐjiàn mentions that the text he published was hand-written and he clearly considered it unique, and we have no indication that it might have been published or circulated earlier.⁶⁰

Another point also suggests that Qīsōng's edition cannot have been the ancestor of the Déyì and Zōngbǎo editions. Qīsōng's *Chuánfǎ zhèngzōng jì* 傳法正宗記, from 1061, contains several passages that are parallel to passages in the longer *Platform Sūtra*, which can in turn be traced to the *Chuándēng lù*.⁶¹ However, in the *Chuánfǎ zhèngzōng jì*, all of these passages employ wording that differs from the *Platform Sūtra* and the *Chuándēng lù*. It seems unlikely that before 1056, when Qīsōng prepared his edition of the *Platform Sūtra*, he would have been content to copy from the *Kōshōji* edition and the *Chuándēng lù*, while in the years prior to 1061, when he compiled the *Chuánfǎ zhèngzōng jì*, he rewrote everything and did not use any material from either text.⁶²

Chinese literature contains several references to a *Liùzǔ fǎbǎo jì* 六祖法寶記 [Dharma Treasure Record of the Sixth Patriarch]. The earliest appears in the *Chóngwén zǒngmù* 崇文總目 [Complete Catalogue of Lofty Literature] from 1041, and this of course cannot be a reference to Qīsōng's 1056 edition.⁶³ In fact, here and everywhere else that this title is mentioned it is said to be in one fascicle, whereas Láng states that Qīsōng's edition was in three fascicles. It seems likely that "old Cáoxī edition" Qīsōng used was a copy of the one-fascicle edition of the *Platform Sūtra* with this title, but unfortunately we know nothing about what the text may have been like.

I have found no references to Qīsōng's edition of the *Platform Sūtra* in historical sources and no quotation that appears to be from it.⁶⁴ It seems that the Qīsōng edition

⁶⁰ Citations attributed to Huínéng or the *Platform Sūtra* in Chinese literature before the thirteenth century never correspond to the *Kōshōji* version of the text, but generally follow either the Dūnhuáng or the Huixīn version.

⁶¹ For these passages see T. 51, pp. 715-768.

⁶² The *Chuándēng lù* was known to Qīsōng, who mentions it in his *Zhèngzōng jì*. See T. 50, 715c, line 2.

⁶³ *Chóngwén zǒngmù* 崇文總目, fasc. 10, p. 13a.

⁶⁴ The *Chányuàn méngqiú shíyí* 禪苑蒙求拾遺, of uncertain date, contains a long quotation from the *Platform Sūtra*, CBETA, X87, no. 1615, p. 100, a9-18 // Z 2B:21, p. 148, b15-c6 // R148, p. 295, b15-p. 296, a6. This corresponds to the longer *Platform Sūtra* in the Taishō edition, CBETA, T. 48, no. 2008, pp. 348, a14-349, b3, although a number of lines have been omitted. In Schlütter 1989:94, I made a serious mistake in confusing the *Chányuàn méngqiú shíyí* with the earlier *Chányuan méngqiú* 禪苑蒙求, from 1225. Furthermore, I failed to identify the quotation as being entirely from the longer *Platform Sūtra* and wrongly suggested that the quotation could have been from Qīsōng's edition.

failed to gain any widespread popularity, perhaps because of competition from the Huixīn editions, and apparently, no trace of it has been preserved.

6. Some conclusions

The chart below shows what are almost certainly the main lines of textual development of the *Platform Sūtra*. While many details represented on the chart cannot be proven with absolute certainty, any alternative reconstruction of the relationship between the different editions of the *Platform Sūtra* must be able to explain the textual data summarized in this essay.

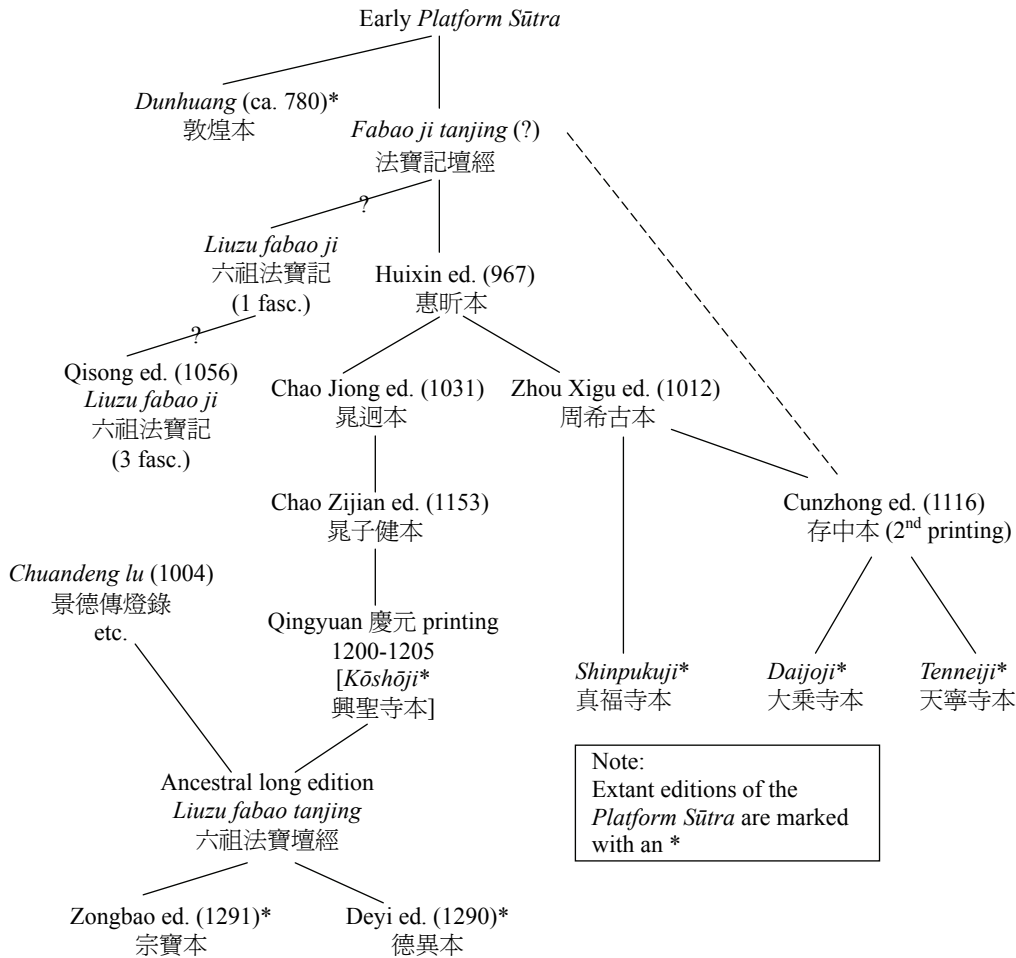


Figure 2

To sum up, we can first conclude that the Dūnhuáng version of the *Platform Sūtra* is indeed the earliest version of the text available to us, although other early versions of the text also must have been in circulation. Some scholars have understood Huixīn's remarks that the text of the old *Platform Sūtra* was *fán* to mean that the text was prolix, since *fán* also carries a connotation of "many" and "complex," and that Huixīn complained that the text had been *expanded* and that he abbreviated it (e.g. Yinshùn 1971:278; see also the discussion in Jorgensen 2002). According to this view, the longer *Platform Sūtra*, which has been considered orthodox for the last seven centuries, might somehow be considered close to an "original" *Platform Sūtra*, but this can now be conclusively disproven.

Huixīn indeed must have expanded the text he worked with somewhat, although the main contribution of the edition associated with him seems to be its more polished language and clearer layout. Some of these "improvements" may well already have been present in the text (or texts) that Huixīn used, but nonetheless his edition quickly became the standard one in the Sòng after its 967 publication. Huixīn's edition became the basis for at least three different versions in the Sòng, and almost all quotations I have identified that are attributed to Huinég or the *Platform Sūtra* in Sòng literature can be traced back to it. Interestingly, what probably was Cháo Jiǒng's edition of Huixīn's version, which we know from the Kōshōji edition and which was adopted by the compilers of the ancestral long edition of the *Platform Sūtra*, apparently did not circulate widely during the Sòng, judging from surviving quotations. But it indirectly became enormously influential as the longer versions of the *Platform Sūtra* came to dominate in the Yuán and later.

As Chán developed, and especially as the quirky and often startling "encounter dialogue" (*jīyuán wèndá* 機緣問答) came to be a hallmark of the enlightened Chán master, the Huixīn versions of the *Platform Sūtra* apparently began to be considered inadequate, as did other even older versions that seem to have continued to circulate.⁶⁵ It is unsurprising, especially after the publication of the *Chuándēng lù*, that Sòng-dynasty students of Chán felt that something was missing from the *Platform Sūtra*. This had been expressed already in the 1056 preface to Qīsōng's edition, and the same sentiment is found in the *Zútīng shìyuàn* 祖庭事苑 from 1108 which, although it notes that the *Platform Sūtra* was circulating widely, laments the fact that no "complete version" of it and of other older Chán texts could be found.⁶⁶ It was only a matter of time before someone would prepare an edition of the *Platform Sūtra* that included

⁶⁵ This phrase *jīyuán wèndá* was coined by Yanagida Seizan, and cannot be found in any pre-modern Chán source; McRae (2000a:47).

⁶⁶ CBETA, X64, no. 1261, p. 423, b3-8 // Z 2:18, p. 110, d17-p. 111, a4 // R113, p. 220, b17-p. 221, a4.

famous dialogues between Huinég and his disciples, and other well-known stories about Huinég and his life. Once such a text had been compiled, it quickly came to be considered the orthodox *Platform Sūtra* and only in recent times have we begun to be aware of its long and complex history. It is to be hoped that scholarship on the *Platform Sūtra* will continue to develop and that the methodology of textual criticism will be an important component of it.

Abbreviations

CBETA	<i>CBETA Chinese Electronic Tripiṭaka Collection</i>
T	<i>Taishō shinshū daizōkyō</i> 大正新修大藏經
ZZ	<i>Dai Nihon zokuzōkyō</i> 大日本續藏經

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文獻校勘法與《六祖壇經》諸版本之研究

徐 德

愛荷華大學

《六祖壇經》是中國佛教最廣為人知推崇的經文之一。在中國佛經中，惟《六祖壇經》現存諸多版本，涵蓋 8 世紀至 13 世紀，且各版本間差異顯著，故特為有趣。因此，《六祖壇經》並非僅是一個單一固定的文本，而是一個呈現多樣的文本本體。本文將重新審視早期的研究，並就目前研究及發現，來討論《六祖壇經》諸版本間的差異及其之間的關係。本文將著重文獻校勘方法，呈現指出各不同版本是如何相互關聯，並探討將如何繼續進行本研究。

關鍵詞：《六祖壇經》，慧能 (638-713)，禪宗，文獻學

Spring and Autumn Use of Jí 及 and Its Interpretation in the Gōngyáng and Gǔliáng Commentaries

Newell Ann Van Auken

University of Iowa

The *Spring and Autumn* (*Chūnqiū* 春秋) is the only extant text in the pre-imperial corpus that uses the word *jí* 及 as the primary (and indeed, only) comitative marker, ‘and, with’. The first part of this study analyzes the four basic patterns using *jí* in the *Spring and Autumn*. The second part examines the use of *jí* in the *Gōngyáng* 公羊 and *Gǔliáng* 穀梁 commentaries. Although *jí* typically functions as a simple comitative marker in the *Spring and Autumn*, *Gōngyáng* and *Gǔliáng* struggle to make sense of this word, which in their language is not a grammatical particle, but a full verb. These language differences influenced commentarial readings of *jí*, resulting in new interpretations of certain *Spring and Autumn* records that departed subtly from the original sense. The evidence explored in this paper lends additional support to the accepted view that multiple dialects were spoken in ancient China, and underscores the importance of recognizing such differences not only for linguists, but for all of us who strive to read and understand ancient Chinese texts.

Key words: *Spring and Autumn*, *Chūnqiū*, *Gōngyáng*, *Gǔliáng*, commentary, early China, Classics, grammaticalization

1. Introduction

The *Spring and Autumn* (*Chūnqiū* 春秋) was composed in the ancient Chinese state of Lǔ 魯 and covers events from 722 to 481 B.C.E.. Its terse records were written according to formal rules, and exhibit limited variation in lexicon or grammar, and thus typically add little to our understanding of early Chinese language history. This paper treats one of the rare linguistic curiosities of the records and the associated commentarial tradition. The *Spring and Autumn* is the only extant text in the pre-imperial corpus that uses the word *jí* 及 as the primary (and indeed, only) comitative marker, ‘and, with’. Yet turning to its commentaries, *jí* meaning ‘and, with’ is not part of the language of either *Gōngyáng* 公羊 or *Gǔliáng* 穀梁; in these works, *jí* instead functions primarily as a full verb.

Traditional Classical Chinese grammars have sought to distinguish the various syntactic functions of *jí*, which may be a full verb meaning ‘catch up with, arrive, reach

up to, extend to’, or may be a grammatical particle, either a preposition (*jiècí* 介詞) ‘at, reaching to [a time or place]’ or ‘with’, or a conjunction (*liáncí* 連詞) ‘and’ (examples include Yáng 1965, Lǚ 1957, Pulleyblank 1995).¹ The notion that grammatical particles (*xūzì* 虛字, ‘empty words’) were historically derived from full lexical words (*shízì* 實字, ‘full words’) via the process of grammaticalization is widely accepted, and in particular, prepositions (sometimes referred to as coverbs) are generally understood to have been derived from full verbs (Norman 1988:92). A number of studies have explored the grammaticalization of *jí*, proposing a trajectory from full verb to preposition to conjunction (Wú 2003, Wǔ 2007, Dīng 2008, cf. Zhōu 1989:142).²

The grammatical particle *jí*, whether preposition or conjunction, is absent from many early texts, which instead employ *yǔ* 與 as the primary comitative marker (*yǔ* is also a verb, ‘give’; cf. *yù* ‘join with’). Examination of the pre-imperial corpus reveals that *jí* and *yǔ* are essentially synonymous when used as comitative markers, but vary in distribution by text. Early texts typically either exclusively use *yǔ* for ‘and, with’, or employ both *jí* and *yǔ*. The variation in distribution has been attributed to dialect differences in early China (Karlgren 1968[1926]:40-41) or to a combination of dialect variation and diachronic change (Xú 1981:376, Zhāng 2012:39). Analysis of *jí* and *yǔ* in excavated texts confirms the existence of ancient regional dialect distinctions in their usage (Zhāng 2012).³ Although several early texts use both *jí* and *yǔ*, only the *Spring and Autumn* uses *jí* exclusively. In the much later *Gōngyáng* and *Gǔliáng* commentaries to the *Spring and Autumn*, variously dated to late Warring States (5th-3rd c. B.C.E.) or early Western Hàn (208 B.C.E.-9 C.E.), the comitative marker is *yǔ*, and although *jí* occurs, it is a verb.

¹ For conventional working definitions of *jiècí* and *liáncí* as used in discussing Classical Chinese grammar, see Yáng & Hé (1992:379, 457).

² Zhōu (1989) is often cited but deeply flawed in its failure to recognize usage differences among early texts; other insightful criticism appears in Jiǎng (1990).

³ I am grateful to South Coblin for bringing this article to my attention; and cf. Zhāng (2011:275-281), a section of Zhāng’s book that contains essentially the same material. An appendix to Zhāng (2011) compares the distribution of *jí* and *yǔ* in texts transmitted since the Warring States period, with results similar to those in Xú Xiāofǔ (1981) (cf. also Jiǎng 1990), namely, that some texts use *yǔ* exclusively whereas others use both *jí* and *yǔ*; Zhāng (2011:652). Thus no early text, transmitted or excavated, resembles the *Spring and Autumn* in using *jí* alone. Zhāng, like Xú, proposes that the distinctions in the transmitted corpus reflect ancient regional dialect variations, but we must keep in mind that the transmitted texts we have today underwent editing and standardization during Hàn times, and this may have involved changing or even “updating” usage. Furthermore, several of the texts Zhāng cites are acknowledged to be composite texts, and were not necessarily associated with a single region; thus it is not necessarily possible to identify a single feature such as relative frequency of *jí* or *yǔ* as representing the speech of a particular region.

This situation is unexpected, since the process of grammaticalization is typically thought to be unidirectional, from lexical word to grammatical particle, and *Gōngyáng* and *Gǔliáng* are much later than the *Spring and Autumn*, the primary text upon which they comment.⁴ A simple narrative of grammaticalization from full verb to particle fails to account for the differences between the *Spring and Autumn* and its commentaries. The unsurprising conclusion is that the difference is likely a consequence of dialect variation. Nonetheless, the evidence itself is quite interesting and warrants attention. The first part of this study analyzes the four basic patterns using *jí* in the *Spring and Autumn*, and the second part examines the use of *jí* in *Gōngyáng* and *Gǔliáng*. Although *jí* functions primarily as a simple comitative marker in the *Spring and Autumn*, *Gōngyáng* and *Gǔliáng* struggle to make sense of this word, which in their language is not a grammatical particle, but a full verb. These language differences influenced commentarial readings of *jí*, resulting in new interpretations of certain *Spring and Autumn* records that departed subtly from the original sense.

2. *Spring and Autumn* patterns using *jí*

The word *jí* occurs 87 times in the *Spring and Autumn*. It may function as a full verb, but it is most commonly a grammatical particle. *Spring and Autumn* records employ four distinct patterns using *jí*, tabulated below and described in the subsequent discussion.

Table 1: Uses of *jí* in the *Spring and Autumn*

	Use of <i>jí</i>	no. of records
1	Full verb	1
2	<i>jí</i> in lists	47
3	<i>jí</i> in records of battles / making peace ⁵	27
4	<i>jí</i> between objects	12
	total	87

⁴ Not included in this analysis is the third of the traditional commentaries to the *Spring and Autumn*, the *Zuǒ zhuàn* 左傳. The *Zuǒ zhuàn* incorporates material from multiple sources, not all of which are obviously related to the *Spring and Autumn*. This composite nature is likely the reason that (pace Karlgren 1968[1926]:40-41, who proposed a ‘Tso dialect’) *Zuǒ zhuàn* regularly uses both *jí* and *yü*.

⁵ This figure includes a lone instance of *jì* 暨, almost certainly a variant form equivalent to *jí*.

2.1 *Jí* as a full verb

The use of *jí* as a full verb, ‘come up to, reach, extend to’, is considered its earliest and most basic use. Yet the verb *jí* occurs only once in the records.

- (1) 公追齊師至鄆，不及。

Our Lord chased the Qí troops to Xī, but did not catch up. (*CQ*, Xī 僖 26.3, 437)⁶

The *Spring and Autumn* records a limited range of events using a highly restricted lexicon.⁷ The fact that *jí* rarely occurs as a verb may be a consequence of the restricted nature of the *Spring and Autumn* itself, and does not necessarily correlate with its relative frequency in the spoken language.

2.2 Listing patterns

The *Spring and Autumn* records many events in which leaders of different states act together, namely, covenants (*méng* 盟), interstate assemblies (*huì* 會), encounters (*yù* 遇), and joint military actions, including attacks (*fǎ* 伐), incursions (*qīn* 侵), surrounding (*wéi* 圍), rescuing (*jiù* 救), and entering a state (*rù* 入).⁸ Records of these events list one participant, the ruler or a nobleman, from each state. They are consistently listed in the same regular order by state, and this order reflects a hierarchy or ranking, variously proposed to have been ritual or religious in nature, or political.⁹ When a Lǔ

⁶ References to *Spring and Autumn* records are marked *CQ*, and designated by ruler, year and entry number according to the numbering scheme in Yáng Bójùn’s 楊伯峻 *Chūnqiū Zuǒ zhuàn zhù* 春秋左傳注, followed by corresponding page reference. Although this study does not treat the *Zuǒ zhuàn* commentarial remarks, this edition is used for *Spring and Autumn* entries because they are conveniently numbered and thus easily found.

⁷ Over 90% of the approximately two thousand *Spring and Autumn* records use one of 37 high-frequency verbs (Van Auken 2010:51), but frequency in the records is not necessarily a reflection of frequency in the spoken language. For example, ‘to be born’ (*shēng* 生) occurs only twice because births were not usually recorded, but this verb was probably not rare in the spoken language.

⁸ These military actions may be joint, involving a coalition of multiple states, or may have been the unilateral action of a single state. The *Spring and Autumn* records several other types of military actions that are always unilateral and are therefore not discussed. Battle records (*zhàn* 戰) employ a different pattern and are discussed below.

⁹ Discussion of this order and its possible significance appears in Van Auken (2010:88-93, 2012:563-564). For an alternative point of view, see Gassmann (1988:162-170).

agent participated, he was listed first, in keeping with the *Spring and Autumn* practice of placing Lǚ in the most elevated position.¹⁰

The vast majority of records with *jí* employ it in such ranked lists of leaders. Records with lists employ one of three patterns: a simple unmarked list, a marked pattern with *jí*, or a similar marked pattern with *huì*. The pattern using *jí* is best analyzed in conjunction with the two related listing patterns, and thus all three are described below.¹¹

2.2.1 Unmarked coordination in lists

The basic, unmarked listing pattern in records of multi-state actions entails simple listing. It is employed in records of military actions, covenants, and meetings:

- (2) 夏。宋公、衛侯、許男、滕子伐鄭。
Summer. The Gōng of Sòng, the Hóu of Wèi, the Nán of Xǔ, and the Zǐ of Téng attacked Zhèng. (*CQ*, Xī 22.2, 393)
- (3) 夏。楚子、陳侯、鄭伯盟于辰陵。
Summer. The Zǐ of Chǔ, the Hóu of Chén, and the Bó of Zhèng made covenant at Chénlíng. (*CQ*, Xuān 宣 11.2, 710)
- (4) 秋。晉士鞅、宋樂祁犁、衛北宮喜、曹人、邾人、滕人會于扈。
Autumn. Shì Yāng of Jìn, Yuè Qílí of Sòng, Běigōng Xǐ of Wèi, someone from Cáo, someone from Zhū, and someone from Téng met at Hù.¹² (*CQ*, Zhāo 昭 27.5, 1481)

The unmarked listing pattern is used regardless of number of participants. Thus even in records with only two participants, they are listed:

¹⁰ In only two exceptional records does a party from another state precede the Lǚ participant; *CQ*, Wén 文 13.6, 593; and Wén 13.9, 594.

¹¹ After completing this paper, I became aware of a recent paper on the same topic, Brooks (2010, published May 2012). Brooks and I both identify the same basic patterns with *jí*, and like me, Brooks understands *jí* as conveying a difference in rank or priority when it connects objects, but she does not apply this interpretation consistently to other patterns with *jí*. She fails to observe that *jí* is typically restricted to records involving only one or two states other than Lǚ, and that it is the standard form for records of military events that involve Lǚ and only one or two other states. Instead, she proposes that when *jí* is used to separate Lǚ from other participants, it indicates a protocol irregularity or a sense of reluctance. Her paper examines only *Spring and Autumn* usage of *jí* and does not explore its commentaries.

¹² For the translation of *rén* 人 as “someone,” that is, as a reference to a single individual, see Van Auken (2012).

- (5) 秋。齊侯、鄭伯盟于鹹。
Autumn. The Hóu of Qí and the Bó of Zhèng made covenant at Xián. (*CQ*, Dìng 定 7.3, 1559)
- (6) 春。宋公、衛侯遇于垂。
Spring. The Gōng of Sòng and the Hóu of Wèi encountered each other at Chuí. (*CQ*, Yīn 隱 8.1, 56)

In these records, simple juxtaposition indicates coordination. The participants are listed in hierarchical order by home state, but they are syntactically parallel, and function as subjects.

The most important feature of this pattern is that it is reserved exclusively for events in which Lǚ is not a participant, and with rare exceptions (discussed below), all records of multi-state actions that do not involve Lǚ employ this simple listing pattern.

2.2.2 Marked listing patterns with *jí* and *huì*

The two marked listing patterns, with either *jí* or *huì*, differ from the simple listing pattern in one salient respect, namely, nearly all instances involve a participant from Lǚ. The *Spring and Autumn* ranks Lǚ first in lists of multiple states. This is but one of many devices used to indicate Lǚ's elevated status. Records with the marked pattern first list the Lǚ participant, followed by *jí* or *huì*, after which participants from other states are listed. In this pattern *jí* and *huì* are not always interchangeable (as discussed below), but they have the same basic meaning. Grammatically, *jí* and *huì* both function as comitative particles meaning 'and' or 'with', but at the same time, they also serve to mark the Lǚ participant, thereby setting him apart from the other states.

Both are regularly used in covenant records:

- (7) 夏。四月。丁未。公及鄭伯盟于越。
Summer. The fourth month. *Dīngwèi*. Our Lord with the Bó of Zhèng made covenant at Yuè. (*CQ*, Huán 桓 1.4, 82)
- (8) 夏。六月。公會齊侯、宋公、陳侯、鄭伯同盟于幽。
Summer. The sixth month. Our Lord with the Hóu of Qí, the Gōng of Sòng, the Hóu of Chén, the Bó of Zhèng, joined together in covenant at Yōu. (*CQ*, Zhuāng 莊 27.2, 1135)

Both also are employed in records of military actions.

- (9) 秋。七月。壬午。公及齊侯、鄭伯入許。
Autumn. The seventh month. *Rénwǔ*. Our Lord, with the Hóu of Qí and the Bó of Zhèng, entered Xǔ. (*CQ*, Yīn 11.3, 71)
- (10) 冬。公會晉侯、宋公、衛侯、曹伯、莒子、邾子、滕子、薛伯、杞伯、小邾子、齊世子光伐鄭。
Winter. Our Lord with the Hóu of Jìn, the Gōng of Sòng, the Hóu of Wèi, the Bó of Cáo, the Zǐ of Jǔ, the Zǐ of Zhū, the Zǐ of Téng, the Bó of Xuē, the Bó of Qǐ, the Zǐ of Lesser Zhū, and the Heir Apparent of Qí, Guang, attacked Zhèng. (*CQ*, Xiāng 襄 9.5, 961)

Records of encounters, which involve only two participants, use *jí* but not *huì*:

- (11) 公及齊侯遇于穀。
Our Lord with the Hóu of Qí had an encounter at Gǔ. (*CQ*, Zhuāng 23.6, 225)

Conversely, records of meetings, which have *huì* ‘meet, assemble’ as the main verb, do not use *jí*, regardless of the number of parties involved, or whether Lǚ participates.¹³ A typical record of a meeting with no Lǚ participant simply lists the participants, using the unmarked listing pattern as in (2), (3), and (4) above.

- (12) 春。齊侯、宋公、陳侯、衛侯、鄭伯會于鄆。
Spring. The Hóu of Qí, the Gōng of Sòng, the Hóu of Chén, the Hóu of Wèi, and the Bó of Zhèng met at Juàn. (*CQ*, Zhuāng 15.1, 199)

A different pattern occurs when Lǚ participates:

- (13) 夏。叔孫豹會晉趙武、楚屈建、蔡公孫歸生、衛石惡、陳孔奐、鄭良霄、許人、曹人于宋。
Summer. Shúsūn Bào [of Lǚ] met with Zhào Wǔ of Jìn, Qū Jiàn of Chǔ, Gōngsūn Guīshēng of Cài, Dàn È of Wèi, Kǒng Huàn of Chén, Liáng Xiāo of Zhèng, someone of Xǔ, and someone from Cáo at Sòng. (*CQ*, Xiāng 27.2, 1126)
- (14) 公會宋公于虛。
Our Lord met with the Gōng of Sòng at Xū. (*CQ*, Huán 12.5, 133)

¹³ The lone exception of a meeting record with *jí* is *CQ*, Xī 5.4, 301.

In these records, *huì* has a dual function. It serves as the main verb, yet occurs in the same position as the markers *huì* or *jí* in records like (7), (8), (9), and (10), thus setting the Lǚ participant off from other participants.

Although the word *huì* sometimes does function as a main verb, ‘meet, assemble’, as in (12), (13), and (14), it is worth emphasizing that it is not a verb in sentences such as (8), which records a covenant, nor in (10), which records a joint military action. In these sentences, *huì* has the same function as *jí*; cf. (7) and (9). Further evidence that it is not a main verb in such records lies in the fact that the *Spring and Autumn* contains several instances of consecutive but separate records in which a meeting is followed by a covenant, or a meeting is followed by a military event.

- (15) 秋。公會劉子、晉侯、齊侯、宋公、衛侯、鄭伯、曹伯、莒子、邾子、滕子、薛伯、杞伯、小邾子于平丘。

Autumn. Our Lord met with the Zǐ of Liú, the Hóu of Jìn, the Hóu of Qí, the Gōng of Sòng, the Hóu of Wèi, the Bó of Zhèng, the Bó of Cáo, the Zǐ of Jǔ, the Zǐ of Zhū, the Zǐ of Téng, the Bó of Xuē, the Bó of Qǐ, and the Zǐ of Lesser Zhū at Píngqiū. (*CQ*, Zhāo 13.4, 1342)

- (16) 八月。甲戌。同盟于平丘。

The eighth month. *Jiǎxū*. We joined together in covenant at Píngqiū. (*CQ*, Zhāo 13.5, 1342)

Formal features indicate that such pairs comprise two discrete records.¹⁴ Each record independently designates a location, even if it is the same in both, and the second record is often independently dated. In short, when the *Spring and Autumn* record-keepers needed to record two separate events such as a meeting and a covenant, they had at their disposal a way of doing this, but this is not what was intended in records like (8) or (10).¹⁵

¹⁴ Similar pairs include *CQ*, Xī 5.4-5, 301 and Chéng 2.9-10, 786.

¹⁵ Also noteworthy is the fact that all single records that might be interpreted as comprising two events (an “assembly” plus another event) involve Lǚ, and in no case does a single record include *huì* plus a covenant or joint military action unless Lǚ is involved. In other words, records with the pattern used in (8) and (10) involve Lǚ, but there is no parallel form that is used when Lǚ is not involved, and for this reason too, we must conclude that in these records, *huì*, like *jí*, is a special marker used when Lǚ is involved, and not a way of recording two events in the same *Spring and Autumn* entry.

2.2.3 Irregularities in listing patterns with *jí* and *huì*

A few irregular records depart from the patterns described above, but confirm the observation that the use of *jí* or *huì* was linked to relative rank. One type of irregular record uses *jí* or *huì* but does not involve Lǚ, and the other type uses not one but two markers.

Only three records of multi-state events do not involve Lǚ but still use a marker. Two use *jí* and one has *huì*.¹⁶ All three involve a participant from a relatively high-ranking Central State and one from Dí, as here:¹⁷

- (17) 秋。衛人及狄盟。

Autumn. Someone from Wèi and the Dí made covenant. (*CQ*, Xī 32.3, 488)

Dí lay at the margins of the Zhōu culture sphere, and in the few records listing Dí with other Central States, Dí always ranked last. The use of the pattern with the marker *jí* or *huì* instead of the simple listing pattern was undoubtedly related to the rank discrepancy, perhaps serving to underscore the vast disparity between the Central States and lowly Dí, just as in its regular use this pattern emphasized the elevation of Lǚ above all other states.

The second type of irregular record uses two markers. These records involve many states, and none employs *jí*. Nonetheless, they may throw light on the use of these markers to emphasize hierarchical differences. All examples involve a Lǚ participant, other Central States participants, and a participant from the low-ranking state of Wú.

- (18) 冬。十有一月。叔孫僑如會晉士燮、齊高無咎、宋華元、衛孫林父、鄭公子鰭、邾人會吳于鍾離。

Winter. The eleventh month. Shúsūn Qiáorú met with Shì Xiè of Jin, Gāo Wújiù of Qí, Huà Yuán of Sòng, Sūn Línfǔ of Wèi, Gōngzǐ Qiū of Zhèng, and someone from Zhū, [and together] met with Wú at Zhōnglí. (*CQ*, Chéng 成 15.12, 872)

The first instance of *huì*, which occurs immediately after the Lǚ participant, is regular, but the second is unexpected; cf. (13). Wú, like Dí, was of marginal status, and the second *huì* in this and similar cases was probably also related to rank disparity.¹⁸ Specifically,

¹⁶ A fourth case, unique in that it does not involve a human agent, is (37), translated and discussed below.

¹⁷ See also *CQ*, Xī 33.3, 492, with *jí*, and Xuān 11.4, 710, with *huì*.

¹⁸ The other two instances are *CQ*, Xiāng 10.1, 973 and Xiāng 14.1, 1004. The battle record in

we may wonder if the first *huì* was positioned to set Lǚ apart from the Central States, and the second, to reflect and perhaps emphasize the perceived hierarchical gulf between the Central States and Wú.

2.2.4 Differences between *jí* and *huì* in lists

Scholars have disagreed in their analysis of *jí* and *huì* in sentences such as those above, some arguing that *jí* and *huì* are prepositions and others understanding them as conjunctions.¹⁹ Coordinating constructions are normally symmetrical (Haspelmath 2004:33). Yet constructions with *jí* and *huì* are asymmetrical, as shown in the following examples, in which the Lǚ agent, that is, the NP preceding *jí* or *huì*, is elided:²⁰

- (19) 秋。七月。丙申。及齊高傒盟于防。
Autumn. The seventh month. *Bǐngshēn*. [We] with Gāo Xī of Qí made covenant at Fáng. (*CQ*, Zhuāng 22.5, 219)
- (20) 十有二月。及鄭師伐宋。
The twelfth month. [We] with Zhèng troops attacked Sòng. (*CQ*, Huán 12.9, 133)
- (21) 冬。十有二月。會齊侯、宋公、陳侯、衛侯、鄭伯、許男、滑伯、滕子同盟于幽。
Winter. The twelfth month. [We] with the Hóu of Qí, the Gōng of Sòng, the Hóu of Chén, the Hóu of Wèi, the Bó of Zhèng, the Nán of Xǔ, the Bó of Huá, and the Zǐ of Téng joined together in covenant at Yōu. (*CQ*, Zhuāng 16.4, 201)

Because of this, both *jí* and *huì* are best analyzed as prepositions, not conjunctions.

CQ, Chéng 8.2, 785 is similar. Only one record, *CQ*, Xī 5.4, 301, employs both *huì* and *jí*. This record is problematic, since in place of low-ranking Wú we find the Zhōu heir-apparent, who would typically be listed immediately after Lǚ. The traditional explanation, that he was listed last as a display of respect, does not align with evidence in other records in which respect is displayed by being listed earlier, not later. This record thus must remain a mystery. Cf. discussion in Chou (1961:115) involving similar instances in other texts, but they are apparently unrelated to disparity in rank.

¹⁹ See discussion below, and also note 30.

²⁰ In nearly all cases, historical narratives in other texts confirm the reading of the elided agent preceding *jí* or *huì* as a Lǚ ruler or nobleman. The only possible exception may be *CQ*, Xī 28.20, 451, which may have the same subject as the preceding record, namely, the ruler of another state.

An important question is the difference between *jí* and *huì*. Despite the obvious syntactic and semantic similarities, two significant distinctions may be identified. First, subject elision is more frequent in records with *jí* than in those with *huì*, and the few records with *huì* that have elided subjects are unreliable. For example, in contrast to the *Zuǒ zhuàn* version of the *Spring and Autumn* cited in (21), the *Gōngyáng* version begins with *gōng* “the [Lǚ] lord,” as do two similar records.²¹ It is impossible to determine whether the *Gōngyáng* reading is original, or whether subjects were later inserted in order to bring these records into line with the more common pattern. The two remaining records with *huì* and an elided subject are ambiguous. Each is closely related to the record that precedes it, and perhaps each “pair” should be considered a single record with a shared subject rather than two independent records.²² In short, it is possible that all cases of subject elision in records with *huì* can be explained as problems with the text or with our understanding of the text, and it is uncertain that subject elision was permitted with *huì*. This in turn might allow *huì* to be analyzed as a conjunction rather than a preposition. By contrast, subject elision with *jí* occurs in records that are unambiguously independent of the preceding records, and similar textual problems are absent, and the analysis of *jí* as a preposition is sound.

A second and more conspicuous distinction between *jí* and *huì* lies in the number of participants that may follow each. In general, this number is unrestricted for *huì*, but *jí* is typically followed by only one participant, or less commonly two. All records of encounters involve one person meeting with another, and all use *jí*, not *huì*, as in (11). Covenant records with *jí* normally involve a Lǚ agent and one other participant, as in (7). Records of military actions may involve Lǚ and up to two other participants, as in (9). (In fact, *huì* is significantly more common than *jí* in records of military actions, but this may be because military actions involving Lǚ and only one or two other states are relatively scarce.) But when three or more participants join with Lǚ in a covenant or military action, *huì* is normally used instead of *jí*.²³ The reverse restriction does not apply: although *jí* is far more common in records involving Lǚ plus one other party, *huì* is also possible in such records.²⁴

²¹ Similar to *CQ*, Zhuāng 16.4, 201 are records Xī 19.6, 380 and Xī 29.3, 475. Both *Gōngyáng* the *Gǔliáng* list “the Bó of Cáo” 曹伯 after “the Nán of Xǔ” 許男.

²² *CQ*, Xī 28.20, 451 and Chéng 13.3, 859.

²³ Two irregular records use *jí* and involve more than three participants; see *CQ*, Xī 5.4, 301 and Chéng 2.10, 786. The first of these is also irregular in that it is the only record of a meeting (*huì*) that also employs *jí*.

²⁴ Textual corruption may be at work in a few such cases; for example, in *CQ*, Huán 17.2, 148, the *Zuǒ zhuàn* version has *huì* with a single object, whereas *Gōngyáng* and *Gǔliáng* both read *jí*. Yet it is impossible to determine whether the *Zuǒ zhuàn* transmits an erroneous reading, or whether *huì* in *Gōngyáng* and *Gǔliáng* represents a later adjustment in which the text was

Despite these differences, *jí* and *huì* appear to be interchangeable in some instances, as in the following two covenant records:²⁵

- (22) 五月。公及諸侯盟于臯鼫。

The fifth month. Our Lord with the regional lords made covenant at Gāoyòu. (CQ, Dìng 4.4, 1533)

- (23) 十有二月。癸丑。公會諸侯盟于薄。

The twelfth month. *Guǐchǒu*. Our Lord with the regional lords made covenant at Bó. (CQ, Xī 21.7, 389)

No identifiable distinction exists between *jí* and *huì* in these pairs, and we must conclude that in some environments, either *jí* or *huì* was acceptable. Although *jí* is typically restricted to cases in which Lǚ acts together with one other party and is preferred over *huì* in such cases, and subject elision is regular with *jí* and unusual with *huì*, these are general tendencies and not hard and fast rules. Here it is worth noting that this conclusion—or rather, lack of conclusion—is both unexpected and unsatisfactory. It is possible for a spoken language to have two similar or even interchangeable grammatical particles, but in a text such as the *Spring and Autumn*, whose records were obviously regulated by strict formal rules, and in which ostensibly minor variations in terminology or form appear to have been significant, such a scenario seems highly unlikely, and we are left wondering if some important generalization has been missed.²⁶

2.2.5 Rank disparity and *jí* and *huì* in lists

Both *jí* and *huì* may be accurately rendered ‘with, and’ in listing patterns, and may be analyzed (at least tentatively, in the case of *huì*) as comitative prepositions. Yet grammatical analysis does not tell the whole story, for their use was closely linked to hierarchy and rank, concepts that were crucial to the *Spring and Autumn*. Marked listing patterns are but one of several formal devices that *Spring and Autumn* records employed to indicate Lǚ’s high status vis-à-vis other states.²⁷ Records used *jí* or *huì* only when Lǚ

“corrected” to align with the more common pattern of using *jí* with a single object.

²⁵ Two similar pairs are CQ, Huán 1.4, 82 and Huán 12.7, 133; and Yīn 1.2, 7 and Huán 17.2, 148, but see preceding note.

²⁶ Traditionally the significance of formal and terminological variations was considered to be linked to Confucian moralizing. Recent studies have proposed that such variations were indeed significant but were instead linked to ritual and hierarchical considerations; see Van Auken (2010, 2012).

²⁷ Others are described in Van Auken (2010:94-99).

was a participant, and in exceptional cases involving a Central State plus a very low-ranking state or group. The word *jí* (and *huì*) served to set the highest-ranking participant, typically Lǚ, apart from others, thereby calling attention to his elevated status above all others. In lists, which did not involve Lǚ, naming participants in hierarchical order was apparently considered sufficient, but when Lǚ was involved, or when a record included both a Central State and a very low-ranking entity such as Dí or Wú, *jí* or *huì* was used to emphasize the rank disparity and to separate the higher and lower ranking parties.

2.3 Separation of opposing sides in battles and making peace

The word *jí* also occurs in battle records. This pattern differs from the marked listing pattern in several respects. First, the only marker used is *jí*; *huì* does not occur in these records. Second, the use of *jí* is not directly related to hierarchy, and *jí* is used regardless of whether Lǚ is involved. Finally, instead of setting apart a single participant (as in the listing pattern), *jí* occurs between two opposing sides in battle records. Each side could consist of a single leader or state, as in (24), or several states acting in concert, as in (25). All but one of the 21 *Spring and Autumn* battle records that refer to opposing coalitions employ this pattern.²⁸

- (24) 十有一月。壬戌。晉侯及秦伯戰于韓。

The eleventh month. *Rénxū*. The Hóu of Jin did battle with the Bó of Qín at Hán. (*CQ*, Xī 15.12, 350)

- (25) 夏。四月。己巳。晉侯、齊師、宋師、秦師及楚人戰于城濮。

Summer. The fourth month. *Jìsì*. The Hóu of Jin, Qí troops, Sòng troops, and Qín troops did battle with someone from Chǔ at Chéngpú. (*CQ*, Xī 28.4, 448)

Without *jí*, the named combatants would simply read like a list, with no indication as to who was fighting against whom. The word *jí* prevents ambiguity in cases with multiple states on each side, and its primary function is to separate the two opposing coalitions.

The order in which battle records list states is unrelated to any material aspect of the battle such as which side was the aggressor or who was victorious, and instead adheres to the *Spring and Autumn* practice of naming states in hierarchical order. The coalition with the highest-ranking state is listed first, and within each coalition states are listed from highest to lowest in rank. Thus, *jí* separates two groups, each of which consists of a ranked list of states.

²⁸ The lone battle record in which opponents are not separated by *jí* is *CQ*, Wén 12.7, 586. Two others do not mention both sides and thus do not use *jí*; see *CQ*, Huán 10.4, 127 and Huán 12.9, 133.

Six of the seven records of ‘making peace’ (平 *píng*) also use *jí*.²⁹ This pattern is similar to that of battle records in that *jí* occurs between the two opposing (or presumably, formerly opposing) sides, but each side comprises only a single party.

(26) 夏。五月。宋人及楚人平。

Summer. The fifth month. Someone from Sòng and someone from Chǔ made peace. (*CQ*, Xuān 15.2, 757)

In both types of record, elision of the elements before *jí* is possible, and similar to lists, comparison with other historical sources reveals that the elided participant was typically Lǚ or a coalition of states including Lǚ, as here:

(27) 己巳。及齊侯、宋公、衛侯、燕人戰。

Jǐsì. [We] did battle with the Hóu of Qí, the Gōng of Sòng, the Hóu of Wèi, and someone of Yān. (*CQ*, Huán 13.1, 135)

The fact that the participants(s) preceding *jí* could be elided indicates that this is not a coordinating structure, and that here, as above, in these records *jí* is best analyzed as a preposition.

2.4 Use of *jí* between two objects

The word *jí* also occurs between objects of transitive verbs, either human (5 instances) or inanimate (9 instances). This construction is uniformly analyzed as a conjoining construction, and scholars are consistent in agreeing that *jí* is a conjunction and not a preposition in this pattern.³⁰

Instances with human objects occur in records of killings with two victims, either a ruler and a nobleman or two noblemen. The word *jí* is used in all three records in which the victims obviously differ in rank, that is, killings of a ruler and a nobleman:

(28) 春。王正月。戊申。宋督弑其君與夷及其大夫孔父。

Spring. The royal first month. *Wùshēn*. Dū of Sòng assassinated his ruler, Yúyí, and his nobleman, Kǒngfǔ. (*CQ*, Huán 2.1, 83)

²⁹ Included in these 6 records is a single instance of *jì* 暨, surely a variant for *jí*; see *CQ*, Zhāo 7.1, 1281 and discussion below. One other record does not use *jí*, as the other party was said to have come to Lǚ to make peace; see *CQ*, Yǐn 6.1, 48. Cf. *CQ*, Huán 10.4, 127, in which parties were said to have come to Lǚ to do battle.

³⁰ See discussion below and note 35.

The word *jí* also appears in two records in which both victims are noblemen, with no apparent difference in rank:

- (29) 陳殺其大夫慶虎及慶寅。
Chén killed their noblemen, Qìng Hǔ and Qìng Yín. (*CQ*, Xiāng 23.5, 1071)

Yet in two other instances in which both victims are noblemen, the victims are simply listed and *jí* is not used:

- (30) 夏。蔡殺其大夫公孫姓、公孫霍。
Summer. Cài killed their noblemen, Gōngsūn Xìng and Gōngsūn Huò. (*CQ*, Āi 哀 4.5, 1625)

Because of the paucity of killings with two or more victims (the *Spring and Autumn* contains only 8 such records) the evidence is insufficient to allow definite conclusions about the difference between these two patterns.³¹ Even so, we may wonder if *jí* may have been obligatory when the victims were of unequal rank. Additional information about the relative rank of the victims in (29) and (30) might throw light on the difference between records with and without *jí*, but unfortunately, such details are lost.

The word *jí* also conjoins pairs of inanimate objects in records of such events as taking and returning territory, construction of walls around settlements, and construction of buildings. The *Spring and Autumn* contains 9 such cases:³²

- (31) 齊人歸讙及闡。
Someone from Qí returned Huān and Chǎn. (*CQ*, Āi 8.7, 1646)

Yet again, *jí* is not obligatory, and objects may also be listed with no marker, as here:

- (32) 得寶玉大弓。
We obtained the precious jade and great bow. (*CQ*, Dìng 9.3, 1570)

Again, we may wonder if *jí* was used to indicate discrepancy in size or importance, but any evidence that might allow us to evaluate this hypothesis is lost.

³¹ The two other records in which victims are of unequal rank are *CQ*, Xī 10.3, 332 and Zhuāng 12.3, 190. The two other records in which both victims are noblemen are Xī 30.3, 578 (with *jí*) and Xuān 15.5, 758.

³² Similar examples include *CQ*, Zhuāng 29.5, 243 and Āi 8.3, 1646.

We may also note that two *Spring and Autumn* records have three objects, and neither uses *jí*.³³ Again, lack of evidence leaves us with unanswered questions, and wondering if perhaps *jí* was not used because of the number of objects—we might speculate that it was limited to pairs—or perhaps because there was no discrepancy in importance or rank.

2.5 Summary: *jí* in the *Spring and Autumn*

This study largely adheres to the conventional analysis of *jí* as a preposition or coverb (*jiècí*) or a conjunction (*liáncí*) but this distinction is not unproblematic.³⁴ Space restrictions permit only a brief discussion. Most existing scholarship on Classical Chinese does not explicitly define the categories “preposition” and “conjunction,” but we can extract definitions by examining supporting examples. Typically, when *jí* occurs in the pattern *jí* NP with no NP preceding *jí*, it is analyzed as a preposition, and in phrases of the structure NP-1 *jí* NP-2, it is analyzed as a conjunction.³⁵ That is, some analyses are based entirely on surface realization, and treat any case in which both NPs are present as conjunctions, even if NP-1 can be and is elided in similar phrases (Wǔ 2007:153, Zhōu 1989:137). This study assumes that the distinction between “preposition” and “conjunction” lies in whether or not the two NPs are of equal structural rank (Stassen 2000:18-21).³⁶ If NP-1 can be elided in a particular structure, even if it is not elided in all cases, then the two NPs are not of equal structural rank, and *jí* is best analyzed as a preposition. Therefore, *jí* is understood as a preposition in lists and battle records, since NP-1 may be elided. When *jí* occurs between two killing victims, in no

³³ These are *CQ*, Xiāng 23.5, 478, concerning human victims, and Ding 10.5, 1576 referring to territory returned.

³⁴ Pulleyblank (1995:61) prefers the term coverb, perhaps because words in this category can be independently negated. See *CQ*, Wén 16.1, 615 for the lone *Spring and Autumn* record in which *jí* meaning ‘with’ is negated.

³⁵ See e.g. Xú (1981:375), Qín (2009), Dīng (2008), Wǔ (2007) (but note a single exception in Wǔ 2007, ex. 4, p. 152). An alternative analysis appears in Zhāng (2007), which proposes two different analyses of records with NP-1 *jí* NP-2, depending on the semantic relationship of the arguments to the verb. Thus, *jí* is claimed to be a conjunction in records such as (9) and (38) on the grounds that A and B have the same semantic relationship with the verb, whereas in records of covenants and battles, such as (7), (22), (24), or (25), *jí* is a preposition, “A made covenant *with* B” or “A did battle *against* B”. This analysis is flawed in several respects, most obvious being its utter failure to take into account any of the numerous records, such as (19), (20), and (21), in which the NP preceding *jí* is elided.

³⁶ For a discussion of comitative markers from the point of view of language typology, see Haspelmath (2004:15).

case is either NP elided, and therefore *jí* may be regarded as a conjunction; this analysis extends to all cases in which *jí* occurs between objects of transitive verbs.

A frequently cited characteristic of conjoining structures is reversibility of constituents (Haspelmath 2004:35). Yet application of this rule to Classical Chinese can be problematic (Zhōu 1989:142, Jiǎng 1990:144). In particular, the *Spring and Autumn* is governed by strict rules related to hierarchical relationships, and so even in simple lists, reversibility is not possible. As shown above, one function of *jí* (and of *huì*) in lists is to separate the highest ranking party from all others; that is, it serves to emphasize disparity in rank. The regular order of states is a socio-linguistic rule related to social, political, or religious hierarchy, and not a syntactic rule related to structural hierarchy, but it nonetheless prevents us from invoking reversibility to determine whether or not patterns with *jí* may be considered conjoining structures, and leaves some ambiguity as to whether or not *jí* may ever be properly understood as a conjunction. For the moment, then, perhaps the best solution is to leave the question open, and to refer to *jí* as a “comitative marker”.

It is noteworthy too that certain uses common in other early texts are absent from the *Spring and Autumn*. For example, *jí* does not precede time expressions or references to events to mark time-when expressions, although it is frequently so used in other early texts, including the *Zuǒ zhuàn*.³⁷ Perhaps this usage did not occur in the language of Lǚ, but it is just as likely that this was absent from the *Spring and Autumn* because it is not a narrative work; that is, this absence may be related to the nature of this particular text, rather than the language it was written in. More curious, the pattern in which *jí* separates opposing sides in records of battles or making peace is rarely if ever found in other early texts, despite the fact that it is standard and common in the *Spring and Autumn*. This cannot be attributed to the nature of the *Spring and Autumn* itself, and seems instead to be an indication that the *Spring and Autumn* is written in a dialect that is not represented in other surviving early texts.

3. *Gōngyáng* and *Gǔliáng* interpretations of *jí*

Both *Gōngyáng* and *Gǔliáng* are commentaries to the *Spring and Autumn*, but neither was written down until centuries after the primary text, and it is thus unsurprising that the language of these two works differs from that of the *Spring and Autumn* itself. Like many other commentarial works, *Gōngyáng* and *Gǔliáng* frequently quote or

³⁷ An instance in the *Zuǒ zhuàn* is, “When [it came to the time] he was born, he had a pattern on his hand” (及生，有文在其手), *Zuǒ zhuàn*, Zhāo 1, 1218. Yáng & Hé (1992:389, 393-394) list other examples.

paraphrase the primary text and discuss its choice of wording. When analyzing commentaries, one must take care to distinguish between features that are representative of the commentators's own language and instances in which a word or grammatical pattern appears only because it is used in the primary text. Keeping this in mind, we discover that use of *jí* in *Gōngyáng* and *Gǔliáng* differs significantly from that of the *Spring and Autumn*. Although neither commentary is primarily concerned with grammatical questions, their attempts to explain records with *jí* reveal inherent assumptions about its use and meaning, and support the observation that *jí* meaning 'with, and' was simply not part of the language of *Gōngyáng* nor of *Gǔliáng*.

In both commentaries, *jí* functions primarily as a full verb meaning 'reach to, extend to', as here:

- (33) 詰誓不及五帝，盟詛不及三王，交質子不及二伯。

Declarations and oaths do not reach back to the Five Emperors; covenants and imprecations do not reach back to the Three Kings; exchanging sons as hostages does not reach back to the Two Patriarchs.³⁸ (*Gǔliáng*, Yīn 8, 2.8b)

Similar instances in *Gōngyáng* include phrases such as "had not yet come up to the proper time" (*bù jí shí* 不及時) contrasted with "had passed the proper time" (*guò shí* 過時); "it did not extend to foreign [states]" (*bù jí wài* 不及外); and in *Gǔliáng*, "did not arrive for the [military] event" (*bù jí shì* 不及事).³⁹ Less frequently, *jí* appears in the compound *lěiji* 累及 'implicate, involve', but *jí* alone does not seem to have had this sense in either commentary.⁴⁰ Significantly, only when quoting the *Spring and Autumn* or in reference to the wording of the *Spring and Autumn* is *jí* used as a comitative marker.⁴¹

³⁸ In his commentary to *Gǔliáng*, Fàn Níng 范甯 (339-401) explains this passage by observing that in the *Shàngshū* 尚書, no "declarations" (*gào* 誥) or "oaths" (*shì* 誓) are associated with the legendary Emperors, although such documents occur in conjunction with later rulers; that no covenants (*mèng* 盟) or imprecations (*zǔ* 詛) are associated with the founders of the Xià, Shāng, or Zhōu dynasties, although such practices later became prevalent; and finally, by claiming (inaccurately) that the practice of exchanging hostages, common in the Warring States period, did not occur at the time of the two patriarchs (or hegemon *bà* 霸) of the Spring and Autumn period, Lord Huán of Qí 齊桓公 and Lord Wén of Jin 晉文公; see *Gǔliáng*, Yīn 8, 2.8b. See also discussion in Mò (1996:14).

³⁹ *Gōngyáng*, Wén 9, 13.13b; Zhāo 22, 23.9a; and *Gōngyáng*, Xī 1, 10.1b-2a; and cf. *Gōngyáng*, Yīn 1.1, 1.5b-6b; *Gǔliáng*, Yīn 1, 1.3a-b.

⁴⁰ The compound *lěiji* is typically used as an expansion of and substitution for *jí* in the *Spring and Autumn* records; but see also *Gǔliáng*, Zhāo 19, 18.4b.

⁴¹ Xú (1981:376) provides additional discussion of this point.

Both commentaries employ *yǔ* 與 instead of *jí* as the default comitative marker ‘and, together with’, and often substitute *yǔ* for *jí* when paraphrasing the *Spring and Autumn*, as here:⁴²

- (34) 公及齊大夫盟于薳。
Our Lord and a nobleman of Qí made covenant at Jì. (*CQ*, Zhuāng 9.1, 178)
- (35) 公曷爲與大夫盟？
On account of what did the [Lǚ] lord make covenant with a nobleman?
(*Gōngyáng*, Zhuāng 9, 7.2b)

Remarking on the first instance of *jí* in the *Spring and Autumn*, *Gōngyáng* defines *jí*, which it groups together with *jì* 暨 and *huì*. All three are said to resemble *yǔ*:

- (36) 及者何？與也，會、及、暨皆與也。曷爲或言會，或言及，或言暨？
會猶最也；及猶汲汲也；暨猶暨暨也。及我欲之，暨不得已也。
What is *jí*? It is “with.” *Huì*, *jí* and *jì* are all *yǔ* (‘and, with’). For what reason do some records say *huì*, some say *jí*, and some say *jì*? *Huì* is similar to “gather together,” *jí* is similar to “urgent,” and *jì* is similar to “resolute.” *Jí* is [used when] we [of Lǚ] desire something; *jì* is used when we cannot avoid it.
(*Gōngyáng*, Yīn 1, 1.3b-4a)

Apart from this passage, *huì* receives little attention in either commentary, though we may wonder if the gloss ‘gather’ was an oblique reference to the fact that more frequently than *jí*, *huì* was used in records involving the assembly of three or more parties.

Both commentaries remark on the two rare instances of *jì*. *Gǔliáng* employs the same paronomastic gloss as *Gōngyáng*, and elsewhere, also like *Gōngyáng* above, suggests that *jí* (in contrast to *jì*) was employed to indicate that an action was in accord with Lǚ’s intent.⁴³ This explanation may represent a commentarial attempt to establish

⁴² Other examples in which the commentary uses *yǔ* where the *Spring and Autumn* record has *jí* include *Gōngyáng*, Xiāng 3, 19.3b and *Gǔliáng*, Xiāng 3, 15.3b; *Gōngyáng*, Yīn 1, 1.3b-4a; Yīn 8, 3.9a; Zhuāng 9, 7.2b; and *Gǔliáng*, Xī 26, 9.8b-9a. The particle *yǔ* appears twice in the *Spring and Autumn*; see *CQ*, Huán 2.1, 83 and Huán 18.1, 151. Yáng Bójùn presents strong evidence that the second of these at least is likely an instance of textual corruption.

⁴³ The word *jì* appears in *CQ*, Zhāo 7.1, 1281. *Gōngyáng* does not comment (see Zhāo 7, 22.7b) but *Gǔliáng*, Zhāo 7, 17.5b gives the same gloss of *jì* as that given in *Gōngyáng*, Yīn 1, 1.3b-4a, example (36) translated above, and explains it as meaning “from abroad reaching to domestic” (以外及內). In another record, both the *Zuǒ* and *Gōngyáng* versions have *jì*, but *Gǔliáng* has *jí*, and none comment on the record; see *CQ*, Dìng 10.12, 1577; *Gōngyáng*, Dìng 10, 26.6b; and *Gǔliáng*, Dìng 10, 19.13b. Repeated six times in *Gǔliáng* is the remark that *jí*

a distinction between *jí* and *jì*, and at the same time to account for the fact that *jí* was generally restricted to lists including Lǚ. Even so, these explanations for *jì* are not substantiated by actual *Spring and Autumn* usage, and it is quite likely that *jì* was simply a variant form of *jí*.

Not surprisingly, commentarial interpretations were influenced by the fact that *jí* did not have the same meaning or function in the language of the commentaries as in the records themselves. *Gōngyáng* explicitly recognizes that *jí* (like *huì* and *jì*) in the *Spring and Autumn* is equivalent to *yǔ* in its own language, and occasional substitution of *yǔ* for *jí* confirms that both commentaries implicitly understand this similarity. Yet neither is consistent in treating *jí* as a comitative marker. Rather, both *Gōngyáng* and *Gǔliáng* by default understand *jí* as a verb ‘reach, extend to (in time or space)’ and their explanations are often devoted to explaining why the default reading does not apply. Thus, commenting on the record translated in (27), *Gǔliáng* attempts to reconcile conventional *Spring and Autumn* use of *jí* in battle records with the understanding of *jí* that *Gǔliáng* presumed its readers to have.

(37) 其言「及」者，由內及之也。

That [the record] said “*jí*” was because they came from within [Lǚ] and reached them. (*Gǔliáng*, Huán 13, 4.6b)

Instead of understanding *jí* as a marker separating two opposing sides on the battlefield, a regular *Spring and Autumn* pattern, *Gǔliáng* treats it as a verb meaning ‘reach up to, arrive at [a location]’. A similar understanding of *jí* is at work in *Gōngyáng* and *Gǔliáng* remarks on the following record:

(38) 夏。五月。壬辰。雉門及兩觀災。

Summer. The fifth month. *Rénchén*. The Pheasant Gate and the two lookout towers burned. (*CQ*, Dìng 2.2, 1528)

Both assume that *jí* refers to the spread of the fire from one building reaching to another. Likewise, both agree that the fire started at the lookout towers, and since the record appears to say “reached the lookout towers,” it demands explanation. Thus *Gōngyáng* remarks:

was used when ‘the domestic side took it as their intent’ (內爲志焉爾); see *Gǔliáng*, Yīn 1, 1.2a ; Yīn 4, 2.1b; Huán 1, 3.2b; Zhuāng 23, 6.4b; Zhuāng 30, 6.13b; Xuān 4, 12.4b-5a. A handful of other comments link *jí* to “the domestic,” but none does so in a clear or systematic way; see for example (37) above, as well as *Gōngyáng*, Yīn 1, 1.6b and *Gǔliáng*, Yīn 1, 1.3b; and *Gǔliáng*, Wén 16, 11.10a.

- (39) 其言「雉門及兩觀災」何？兩觀微也。然則曷爲不言「雉門災，及兩觀」？主災者兩觀也。時災者兩觀，則曷爲後言之？不以微及大也。
Why is it that they said “The Pheasant Gate reaching to (*ji*) the two lookout towers burned”? The two lookout towers were lesser. This being the case, then why did they not say, “The Pheasant Gate burned, and it reached the two lookout towers”? It was because the primary fire was at the two lookout towers. If the primary fire was the two lookout towers, then why did they mention them later?⁴⁴ They did not go from lesser extending to greater. (*Gōngyáng*, Dìng 2, 25.4a)

The commentary recognizes the general rule that *Spring and Autumn* records identified the more important entity first; that is, records “did not go from lesser extending to (*ji*) greater.” Thus *Gōngyáng* still understands *ji* as a verb meaning ‘extend to, reach’ but rather than interpreting it in the concrete sense of reaching a point in time or space, the commentary explains *ji* as referring to hierarchy. *Gǔliáng* likewise tries to justify the fact that the record does not reflect the chronological progression of the fire.⁴⁵

Gǔliáng too endeavors to reconcile the verb *ji* meaning ‘reach, come up to [in time or space]’ with its use in pairs or lists, as in its comments on the record translated above in (28) identifying a ruler and a nobleman as killing victims. *Gǔliáng* notes that the order in which victims are listed does not adhere to the order in which they were killed, and sees this as warranting explanation.

- (40) 孔父先死，其曰「及」何也？書尊及卑，《春秋》之義也。
Given that Kǒngfǔ died first, why is it that the record says “*ji*”? Recording the respected reaching to the base is the principle of the *Spring and Autumn*. (*Gǔliáng*, Huán 2, 3.3a)

Thus here and elsewhere *Gǔliáng* proposes that *ji* did not indicate a chronological sequence, but a progression from major reaching to minor, or from higher to lower rank.⁴⁶

⁴⁴ This translation follows Qīng commentator Chén Lì 陳立 (1809-1869), reading *shí* 時 as an error for *zhǔ* 主; see *Gōngyáng yìshū* (vol. 4) 69.2b-3a.

⁴⁵ *Gǔliáng*, Dìng 2, 19.4a; this comment also proposes that the Pheasant Gate was mentioned first out of respect, but does not explicitly link this explanation to *ji*.

⁴⁶ Concerning *ji* indicating sequence “from revered to base” (尊及卑), see *Gǔliáng*, Zhuāng 12, 5.15b; Xī 10, 8.5b; Xī 30, 9.15a; and Dìng 11, 19.13b; concerning *ji* indicating sequence “from large to small” (大及小) see *Gǔliáng*, Zhuāng 29, 6.12b; Zhāo 5, 17.4b-5a. Other remarks propose that the absence of *ji* indicated that two inanimate objects were on par with each other; concerning buildings see *Gōngyáng*, Āi 3, 27.3b and *Gǔliáng*, Āi 3, 20.4b, and concerning territory, see *Gǔliáng*, Xiāng 21, 16.5a.

The *Gǔliáng* assertion that “Recording the respected reaching to the base is the principle of the *Spring and Autumn*” is certainly accurate, as records do indeed list higher-ranking people before those of lower rank. It is difficult to determine whether this applied to buildings, such as the Pheasant Gate and the lookout towers, or other inanimate objects, as the commentaries suggest, but the proposal itself is not unreasonable. Yet the principle of naming higher-ranking persons first was not restricted to lists with *jí*, but applied to all *Spring and Autumn* lists of people. *Gōngyáng* and *Gǔliáng* invoke this principle in an attempt to map their default understanding of *jí* as a verb meaning ‘reach, extend to, come up to [in time or space]’—or, apparently, in rank or position—onto sentences in which *jí* was simply a comitative marker, ‘and, with’. Elsewhere, as noted above, the commentaries also try to account for the fact that records with *jí* frequently involved the ‘domestic’ (*nèi* 內), that is, Lǚ, by associating it with Lǚ’s intent. Both commentaries strive to explain observations about the *Spring and Autumn* that they must have found confusing, yet they are misled by the fact that the use of *jí* in their language differed from that of the *Spring and Autumn*. In consequence they miss the crucial point that *jí* often serves to set apart the most important entity (nearly always Lǚ) from others, and in lists, it is this effort to separate and elevate, and not the hierarchical order itself, that seems to be the main function of *jí*. Thus *jí*, a comitative marker meaning ‘and, with’ in the *Spring and Autumn*, came to be reinterpreted as a verb meaning ‘reach, extend to, come up to’ in the later *Gōngyáng* and *Gǔliáng* commentaries.

4. Conclusions

While students of Classical Chinese today, like the *Gōngyáng* and *Gǔliáng* commentators, may find it tempting to read the verbal sense of ‘reaching, drawing up to’ into the particle *jí*, such a reading is anachronistic and incorrect. This is demonstrated by records such as (41) below, which certainly does not imply that the Lǚ ruler ‘came up to’ the Zhèng ruler to make covenant. Here as elsewhere, the record employs *jí* even though Lǚ did not move toward the other party, and in this case was actually the recipient of a visit:

- (41) 晉侯使卻曄來聘。
己丑。及卻曄盟。

The Hóu of Jin dispatched Xi Chōu to come on a friendly diplomatic visit.
Jíchǒu. [We] with Xi Chōu made covenant. (*CQ*, Chéng 11.2, 851)

It is noteworthy too that when noblemen or rulers paid visits to other states, they were considered to have subordinated themselves to the host state, a point that makes it still more unlikely that records like (41) should be thought to imply that Lǚ somehow ‘came up to’ the other party.⁴⁷

The *Spring and Autumn* was the product of a culture that was deeply concerned with relative rank and hierarchy, and its use of *jí* did not violate those norms, but reinforced them. Grammatically, *jí* was simply a comitative marker, but in many records it also was employed to emphasize hierarchical distinctions by separating the Lǚ participant (or rarely, another high-ranking party) from others, thereby marking his elevated status. The sense of ‘reaching, coming up to’ inherent to the verb *jí* seems to have been absent from the particle *jí* as it was used in *Spring and Autumn* records. We may speculate that the verb *jí* ‘reach, come up to’ gradually took on the sense of ‘extending to, including’ and eventually was transformed into a grammatical particle that simply meant ‘with, and’.⁴⁸ Even after the particle *jí* had been completely grammaticalized, in the *Spring and Autumn* it nonetheless co-existed with the lexical item from which it was derived. Such a situation, in which multiple layers co-exist, is normal and not unexpected.⁴⁹

Yet in *Gōngyáng* and *Gǔliáng*, *jí* was primarily (if not exclusively) a verb ‘reach, extend to, come up to’. Neither employed *jí* in its grammaticalized usage. Instead, when they encountered the particle *jí* they sought explanations that aligned with their understanding of a word that in their language was simply a verb. That the grammaticalized particle *jí* obviously did not imply ‘reach, extend to, come up to’ in the records seems to have made this word especially difficult for the commentaries to explain. The

⁴⁷ This is illustrated in the narratives in *Zuǒ zhuàn*, Xiāng 8, 959 and Zhāo 20, 1411; more generally, making a visit was equated with ‘disgrace’ (rù 辱).

⁴⁸ Unexplored in this study are other possible etymological connections, which suggest an alternative path of development. In the same phonetic series as 及 *jí* < **gəp* ‘reach, come up to’ are several obviously related words, including 汲 *jí* < **kəp* ‘to draw water (bring water to oneself)’; 吸 *xī* < **həp* ‘to inhale (bring air toward oneself)’; 扱 *xī* < **həp* ‘to gather, collect (bring items to oneself)’. In contrast to the verb *jí*, ‘reach, extend to [a point in space or time]’, these words involve causing something to come up to or reach oneself. We may well wonder if this sense is related to the *Spring and Autumn* use of *jí* as a comitative pronoun, that is, if underlying the records was the sense that Lǚ retained agency and rather than ‘reaching’ or ‘extending to’ the other states, the records attempted to present Lǚ as ‘drawing in’ leaders of other states to itself. Also worth noting is the comitative conjunction 累 *tà* < **ləp* used in the oracle bones and bronze inscriptions; see Takashima (1996:243-246) for discussion, and cf. 逮 / 逮 *dài* < **lās* ‘come’. Reconstructions follow Schuessler (2009).

⁴⁹ In this connection, the notion that a clear bright line separates categories such as “conjunction” and “preposition” may also warrant reevaluation. Grammaticalization is a gradual process, and the category of a given form may shift over time, and boundaries between categories are often fluid (Hopper & Traugott 2003:7).

misunderstanding produced by this linguistic difference left room for various inaccurate interpretations, for example, allowing *Gōngyáng* and *Gǔliáng* to introduce explanations linking *jí* to such concepts as intent, while placing less emphasis on the earlier *Spring and Autumn* preoccupation with hierarchy.

Grammaticalization is widely hypothesized to be a unidirectional process. That is, lexical items may undergo transformation into grammatical words, and during this transformation their lexical meaning becomes attenuated or is even lost, but the process does not occur in reverse (Hopper & Traugott 2003:99ff).⁵⁰ Thus it is particularly surprising that two later works, *Gōngyáng* and *Gǔliáng*, appear to exhibit an earlier stage of the grammaticalization process, in which *jí* is understood as a full verb and not conceived of as a particle. One possible explanation is that in the language(s) of *Gōngyáng* and *Gǔliáng*, the comitative marker *jí* had been supplanted by *yǔ*, but in such a scenario, we would expect a transitional period in which both co-existed, and we would not expect *jí* to be entirely absent and apparently incomprehensible as a comitative marker. A far likelier explanation is that the *Spring and Autumn* language was not directly ancestral to the *Gōngyáng* and *Gǔliáng* language(s). As noted above, the fact that the default word for ‘and, with’ was *jí* in some early works and *yǔ* in others was likely the result of dialect difference. Although *jí* had undergone grammaticalization into a comitative particle in the *Spring and Autumn* language, in the language(s) represented in *Gōngyáng* and *Gǔliáng*, even centuries later, *jí* remained a full verb and another word served as the comitative particle. Thus, this study offers support for the view that the language(s) of *Gōngyáng* and *Gǔliáng* were not direct descendants of that of the *Spring and Autumn*.⁵¹ This finding is significant for understanding Chinese language history, and may also aid us in evaluating the commentaries and their interpretations of *Spring and Autumn* records.

This brief and narrow study illustrates the complexity—or even messiness—of historical linguistics. Although the *Spring and Autumn* appears to be an extremely simple and formally regular text, one with few if any interesting grammatical features, in it we find a classic example of synchronic layering, in which grammaticalized forms have emerged and coexist with older forms. Thus a single instance of the full verb *jí*

⁵⁰ Recently a process called “degrammaticalization” has been proposed. Even if we accept this proposal, “degrammaticalization” is not the reversal of grammaticalization, that is, a process whereby a grammaticalized particle is transformed back into a full lexical item, but an innovative process whereby a grammatical or function word takes on a new sense as a lexical or content word (Norde 2009).

⁵¹ Indeed, tradition has it that the *Gōngyáng* tradition was from the state of Qí 齊, not Lǔ. The evidence assembled here does not confirm the Qí connection, but does indicate that if the *Spring and Autumn* was Lǔ text, then *Gōngyáng* almost certainly was not, and the same may be said of *Gǔliáng*.

coexists with comitative preposition *jí* and conjunction *jí*. Not surprisingly, expanding the scope of analysis to include later commentaries reveals differences in usage. While our first impulse might be to attribute usage variations to diachronic change, in this case, dialect variation is a far likelier explanation.

The observation that multiple dialects and languages were spoken in ancient China is hardly new, yet all too often, those of us who read early texts have found ourselves deceived by the work of Hàn scholars, work that often managed to conceal much diversity with a unified orthography and standardized versions of the classics. Historical phonologists have displayed increasing sensitivity to such complexities, and researchers who work with excavated manuscripts are regularly confronted with an almost bewildering degree of regional variation. Yet these issues are not restricted to phonology or orthography but also pertain to grammar and lexicon, and must be attended to by all who endeavor to understand the history of early Chinese language in its various forms, and by all of us who strive to read and clearly understand ancient Chinese texts.

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「及」在《春秋》的使用 以及其在《公羊》、《穀梁》的解釋

方妮安

愛荷華大學

《春秋》是現存先秦文獻中唯一使用「及」作為主要伴同標記的作品。本文的第一部分分析《春秋》中四種「及」的基本使用結構，第二部分探索在《公羊》、《穀梁》中「及」的使用。雖然在《春秋》中，「及」只不過是伴同標記，但在《公羊》、《穀梁》的語言中「及」完全是一個動詞。相應的，「及」在這兩部文獻也有值得探討之處。「及」的這些詞性上的不同，影響了《公羊》、《穀梁》對「及」字的評注，也產生了對《春秋》中某些條目的解讀稍偏離原來意義。本文所挖掘的文獻資料肯定了目前公認的觀點，也即，古代中國有多種方言；而且更確切一點說是，《春秋》的語言有別於《公羊》和《穀梁》。

關鍵詞：春秋，公羊，穀梁，注釋，古代中國，語法化，伴同，古代中國的方言

Contributors

William H. BAXTER 白一平 is Professor of Chinese and Linguistics at the University of Michigan in Ann Arbor. He received his Ph.D. in Linguistics from Cornell University. His main research interests are the history of Chinese, the interpretation of early Chinese texts, and historical linguistics in general. His publications include *A Handbook of Old Chinese Phonology* (1992); “Word formation in Old Chinese” (1997, with Laurent Sagart); “Situating the language of the *Lao-tzu*: the probable date of the *Tao-te-ching*” (1998); “Beyond lumping and splitting: probabilistic issues in historical linguistics” (2000, with Alexis Manaster Ramer); “Mandarin dialect phylogeny” (2006); 〈‘執’、‘勢’、‘設’等字的構擬和中古 sy-（書母=審三）的來源〉[The reconstruction of the words 執 *yì*, 勢 *shì*, and 設 *shè*, and the origin of the Middle Chinese initial sy-] (2010) and *Old Chinese: A New Reconstruction* (forthcoming, with Laurent Sagart).

David Prager BRANNER 林德威 is Willis F. Doney Member at the Institute for Advanced Study. He studied articulatory phonetics and dialect field methods with Robert Austerlitz (B.A., Columbia University) and Chinese descriptive and historical linguistics with Jerry Norman (Ph.D., University of Washington), as well as computer science (City College of New York and Hacker School). His research interests encompass the Chinese language in all periods, and he considers himself a sinologist specializing in language rather than a linguist specializing in Chinese. Current long-term publication projects are a Chinese dictionary and a handbook of medieval prosody. Representative research reports include “The classification of Longyan” (1999); “Common Chinese and early Chinese morphology” (2002); “Tonal prosody in Chinese parallel prose” (2003); “Some composite phonological systems in Chinese” (2006); “Motivation and nonsense in Chinese secret languages” (2010); “Portmanteau characters in Chinese” (2011); “A curious lexicographic relic of the Cultural Revolution” (2013).

CHĀNG Méixiāng 昌梅香 is Lecturer of Chinese at the College of Liberal Arts, Shaanxi Normal University, where she teaches Chinese and linguistics. She received her Ph.D. in Chinese Dialectology from Jinan University (暨南大學), Guangzhou, where she worked under the supervision of Wǔ Wēi 伍巍. Her research focuses on the history, relationships, and reconstruction of the Gàn dialects in Jí'ān 吉安. Her published papers include 〈贛語雲樓話的變調〉[Tone sandhi in the Gàn dialect of Yúnlóu] (2010); 〈遂川方言的送氣分調〉[Tone splits caused by aspirated consonants in the Suichuān dialect] (2012) and 〈《漢英韻府》拼音系統評介〉[A brief introduction to the

transcriptional system in *Samuel Wells Williams' Syllabic Dictionary of the Chinese Languages*] (2013).

Zhongmin CHEN 陳忠敏 is a Professor of Chinese linguistics at Fudan University. He received his Ph.D. from the University of California, Berkeley, where he worked under the supervision of Pang-Hsin Ting. His major research interests lie in Chinese historical linguistics and dialectology, and experimental phonetics. His major publications include 《嘉定方言研究》 [Studies on the Jiāding Dialect] (1993); 《寧波方言詞典》 [Dictionary of the Ningbō Dialect] (1997); *Studies on Dialects in the Shanghai Area—Their Phonological Systems and Historical Developments* (2003), and 《漢語方言語音史研究與歷史層次分析法》 [The Historical Phonology of Chinese Dialects and Methodological Issues in the Analysis of Historical Strata] (2013).

Gǔ Qián 顧黔 is a Professor at Nanjing University, where she teaches Chinese linguistics. She received her Ph.D. in Linguistics from Nanjing University, under the direction of Lǚ Guóyáo. Her research focuses on Chinese dialectology, dialect geography, and Chinese phonology. Her publications include 〈通泰方言韻母研究〉 [A synchronic and historical study of rimes in the Tong-Tai dialects] (1997); 《江蘇省志·方言志》 [Record of Dialects—Jiangsu Provincial Annals] (1998, with Bào Míngwěi 鮑明燁 et al.); 《通泰方言音韻研究》 [Study of Tong-Tai Dialect Phonology] (2001); 《江淮官話與吳語邊界的方言地理學研究》 / *Chinese Dialect Geography: Distinguishing Mandarin and Wu in their Boundary Region* (2006, with Richard VanNess Simmons and Shí Rǚjié 石汝杰).

Zev HANDEL 韓哲夫 is Associate Professor at the University of Washington, Seattle, where he teaches Chinese language and linguistics. He received his Ph.D. in Chinese from the University of California at Berkeley, where he studied Chinese historical phonology under the direction of Pang-Hsin Ting. His research interests include the history of Chinese, Sino-Tibetan comparison and reconstruction, and the role of Chinese characters in Asian writing systems. Among his publications are *Old Chinese Medials and their Sino-Tibetan Origins* (2009) and articles on Old Chinese and Sino-Tibetan phonology, Tibeto-Burman languages, Northern Min dialects, and Chinese characters.

Nathan W. HILL 內藤丘 is Lecturer in Tibetan and Linguistics at the School of Oriental and African Studies, University of London. He studied at Harvard University with Leonard van der Kuijp and Jay Jasanoff. His research focuses on Old Tibetan and Tibeto-Burman/Sino-Tibetan historical linguistics. His publications include *A Lexicon of Tibetan Verb Stems as Reported by the Grammatical Tradition* (2010), and *Old Tibetan*

Inscriptions (2009, with Kazushi Iwao). His current projects include the creation of a Tibetan diachronic part of speech tagged corpus and the search for sound laws relating Tibetan, Burmese, and Chinese.

Dah-an HO 何大安 is Academician at Academia Sinica. He received his Ph.D. at National Taiwan University, where he studied under the supervision of Prof. Pang-Hsin Ting. His main research interests lie in Chinese historical phonology, Chinese dialectology, and Austronesian linguistics. Among his major publications are 《聲韻學中的觀念和方法》[Concepts and Methods in Chinese Phonology] (1987), and 《規律與方向：變遷中的音韻結構》[Rules and Directions: The Changing Structure of Phonology] (1988), as well as numerous research articles and edited volumes.

Guillaume JACQUES 向柏霖 is *chargé de recherche* at the Centre National de la Recherche Scientifique (CNRS) in Paris, Centre de recherches linguistiques sur l'Asie orientale (CRLAO). He received his Ph.D. at Paris VII University. His main research interests are language documentation, historical linguistics and language typology. His publications include a short grammar of Japhug Rgyalrong, 《嘉絨語研究》[Study on the Rgyalrong Language] (2008), and a series of articles on the morphosyntax and historical phonology of Rgyalrong, Tangut, Kiranti, and Tibetan languages.

Joseph A. LEVI 雷祖善 is a Visiting Scholar at the George Washington University. He received his Ph.D. from the University of Wisconsin-Madison. Among his many research interests are Romance historical linguistics and philology, with special emphasis on Portuguese and Italian, and missionary linguistics in Africa and Asia during the 16th to 18th centuries. His publications include “Portuguese and other European missionaries in Africa: A look at their linguistic production and attitudes” (2009); “Padre Joaquim Afonso Gonçalves (1781-1834) and the *Arte China* (1829): An innovative linguistic approach to teaching Chinese grammar” (2007); “Sino-Lusitanian religious contacts and scholarly rewards: Father Matteo Ricci, S.J., (1552-1610) and the *Dicionário Português-Chinês*, (c. 1583-1588)” (2001); and *Francisco Varo's Grammar of the Mandarin Language (1703): An English Translation of 'Arte de lingua mandarina'* (2000, with W. South Coblin); *O Dicionário Português-Chinês de Padre Matteo Ricci* (1998).

Lǚ Guóyáo 魯國堯 is Professor Emeritus at Nanjing University, and a Distinguished Professor at Hangzhou Normal University. He received his graduate degree from Peking University. His research interests include Chinese dialects, historical linguistics, lexicography, grammar, and philology. His major publications include 《魯國堯自選集》[Collected Works of Lǚ Guóyáo] (1993); 《魯國堯語言學論文集》[Collected

Essays in Linguistics] (2003); 《語言學文集：考證、義理、辭章》 [Essays in Linguistics: Philology, Principles, and Rhetoric] (2008); and 《魯國堯語言學文集：衰年變法叢稿》 [Collected Studies in Linguistics by Lǚ Guóyáo: New Thinking in His Later Years] (2013).

James MATISOFF 馬蒂斯夫 is Professor Emeritus at the University of California, Berkeley. He received his A.B. and A.M. in French literature at Harvard, and his Ph.D. in linguistics at Berkeley in 1966. His research interests include Sino-Tibetan languages and linguistics, and he has conducted extensive fieldwork in Thailand on the Lahu language. He is the author of numerous articles and books, including *The Grammar of Lahu* (1973/1982); *Variational Semantics in Tibeto-Burman* (1978); *Blessings, Curses, Hopes and Fears: Psycho-ostensive Expressions in Yiddish* (1979); *The Dictionary of Lahu* (1988); *Handbook of Proto-Tibeto-Burman* (2003); *English-Lahu Lexicon* (2006); and *The Tibeto-Burman Reproductive System* (2008).

Jerry NORMAN 羅杰瑞 (1936-2012) was Professor Emeritus at the University of Washington, Seattle. He received his Ph.D. from the University of California, Berkeley, where he studied under Yuen Ren Chao and James Bosson. His scholarly interests included Chinese dialects and historical phonology, Manchu, Mongolian, and Altaic studies. His major publications include *Chinese* (1988) and *A Comprehensive Manchu-English Dictionary* (2013); he also co-authored an article with South Coblin, “A new approach to Chinese historical linguistics” (1995).

Laurent SAGART 沙加爾 is a senior scholar at the French Centre National de la Recherche Scientifique (CNRS), and he also teaches at Institut National des Langues et Civilisations Orientales, Paris. He received his Ph.D. from the University of Aix-Marseille 1. His research focuses on the reconstruction of Old Chinese, the wider affiliation of Chinese, the classification of East Asian languages, and the interface between historical linguistics, archeology and population genetics. His major publications include *Les Dialects Gan* (1993); *The Roots of Old Chinese* (1999); and *Old Chinese: A New Reconstruction* (forthcoming, with William Baxter).

Morten SCHLÜTTER 徐德 is an Associate Professor at the University of Iowa, where he teaches Buddhism and Chinese religion. He holds an M.A. in Chinese Studies from the University of Copenhagen and a Ph.D. in Religious Studies from Yale University, where he studied under Stanley Weinstein. He is the author of *How Zen Became Zen: The Dispute over Enlightenment and the Formation of Chan Buddhism in Song-dynasty China* (2008) and several articles on various aspects of Chinese Buddhism. He is also

co-editor of *Readings of the Platform Sūtra* (2012, with Stephen Teiser), and his current book project concerns different versions of the *Platform Sūtra*.

Axel SCHUESSLER 許思萊 is Professor Emeritus at Wartburg College in Waverly, Iowa. He received his doctoral degree in Sinology at the Ludwig-Maximilians-Universität in Munich, where he also studied Sanskrit, Tibetan and Mongolian. He studied under Herbert Franke, Wolfgang Bauer and Helmut Hoffmann. He is author of *A Dictionary of Early Zhou Chinese* (1987); *Etymological Dictionary of Old Chinese* (2007); and *Minimal Old Chinese and Later Han Chinese* (2009).

Zhongwei SHEN 沈鍾偉 is Professor of Chinese at the University of Massachusetts Amherst, where he teaches Chinese linguistics. He received his Ph.D. in linguistics from the University of California, Berkeley, where he worked under the supervision of William S-Y. Wang. His research focuses on the mechanism of sound change, early Mandarin Chinese seen from non-Chinese materials, and Chinese dialectology. His publications include *Exploring the Dynamic Aspect of Sound Change* (1997); *Studies on the Menggu Ziyun* (2008); *Diachronic Studies of the Wu Dialect* (2011); and *Synchronic Studies of the Wu Dialect* (2011).

Richard VanNess SIMMONS 史皓元 is Professor of Chinese at Rutgers, the State University of New Jersey, where he teaches Chinese language and linguistics. He received his Ph.D. in Chinese linguistics and dialectology from the University of Washington, Seattle, under the supervision of Jerry Norman. His research focuses on the history, geography and classification of the Chinese dialects, and includes extensive fieldwork investigating and mapping the dialects of Zhèjiāng and Jiāngsū. His publications include *Chinese Dialect Classification—A Comparative Approach* (1999); *Issues in Chinese Dialect Description and Classification* (1999); *Chinese Dialect Geography: Distinguishing Mandarin and Wu in their Boundary Region* (2006, with Shí Rǔjié 石汝杰 and Gù Qián 顧黔); *Handbook for Lexicon Based Dialect Fieldwork* (2006, with Gù Qián 顧黔 and Shí Rǔjié 石汝杰); and *Shanghainese Dictionary and Phrasebook* (2011).

Jackson T.-S. SUN 孫天心 is Research Fellow at the Institute of Linguistics, Academia Sinica. He received his Ph.D. from the University of California at Berkeley, where he studied under the supervision of James Matisoff. His research focuses on the synchronic and diachronic phonology and morphosyntax of Tibetan, Rgyalrong, Qiang, and Tani languages in the Sino-Tibetan family. His major publications include *Aspects of the Phonology of Amdo Tibetan: Ndzorge Shæme Xæra Dialect* (1986); “Parallelisms

in the verb morphology of Sidaba rGyalrong and Guanyinqiao in Rgyalrongic” (2000); “Stem alternations in Puxi verb inflection” (2000); “Verb-stem variations in Showu Rgyalrong” (2003); “Complementation in Caodeng Rgyalrong” (2012); “Uvularization as a linguistically relevant secondary articulation: evidence from Qiang” (with Jonathan Evans, forthcoming), and *Proto-Tani: A Tibeto-Burman Mesolanguage* (with Mark Post, forthcoming).

Ken-ichi TAKASHIMA 高嶋謙一 is Professor Emeritus in the Department of Asian Studies, University of British Columbia, and has held a number of distinguished visiting appointments in Europe and East Asia, including a lifetime appointment as Professor at Anhui University in Hefei. He received his Ph.D. from the University of Washington, Seattle, where he studied palaeography with Paul L-M. Serruys and phonology with Fang-Kuei Li. His research interests concern pre-Qin Chinese and Chinese palaeography, with a focus on oracle-bone and bronze inscriptions. Publications to date include *Studies of Fascicle Three of Inscriptions from the Yin Ruins / 殷墟文字丙編研究*, 2 vols. (2010, vol. 1 with Paul L-M. Serruys 司禮儀), among his eight books and approximately a hundred scholarly articles published in North America, Europe, and East Asia.

Pang-Hsin TING 丁邦新 is Emeritus Agassiz Professor of Chinese linguistics at the University of California, Berkeley. He received his Ph.D. from the University of Washington, Seattle, where he worked under the supervision of Fang-Kuei Li and Paul L-M. Serruys. His research focuses on Chinese historical linguistics, phonology and dialectology. His major publications include 《臺灣語言源流》[The Origin of Taiwan Languages] (1970); *Chinese Phonology of the Wei-Chin Period—Reconstruction of the Finals as Reflected in Poetry / 魏晉音韻研究* (1975); 《儋州村話：海南島方言調查報告之一》[The Tan-chou Ts'un-hua Dialect] (1986); 《丁邦新語言學論文集》[Selected Works of Ting Pang-Hsin in Linguistics] (1998); 《一百年前的蘇州話》[The Suzhou Dialect at the Beginning of the Twentieth Century] (2003); and 《中國語言學論文集》[Selected Works on Chinese Linguistics] (2008).

Newell Ann VAN AUKEN 方妮安 is a Visiting Assistant Professor at the University of Iowa. She received her undergraduate education at the University of Virginia, and her Ph.D. from the University of Washington, Seattle, where she worked under the supervision of William G. Boltz, and also studied under Jerry Norman. Her research interests include early Chinese language and texts, and she is particularly interested in exploring the gap between the early meanings and functions of texts, and the ways in which those texts came to be understood and deployed in later times. She has written several articles on the *Spring and Autumn* (*Chūnqiū* 春秋).

ZHĀNG Zhīlíng 張志凌 is Lecturer in the College of International Students, Southeast University (東南大學), in Nanjing. She received her Ph.D. in Linguistics and Applied Linguistics from Nanjing University. Her research interests include Chinese dialects, comparative linguistics, language variation and Chinese internationalization. Her research interests lie in analyzing pronunciation variations in Chinese dialects using socio-linguistics methodology. She has published a number of research papers in the field of Chinese linguistics.

Key to cover images



Nos. 1 and 11 are early 18th century missionary transcriptions of the Mandarin word meaning ‘south’ from Francisco Varo’s (1627-1687) *Arte de la lengua Mandarina*, reproduced from pp. 30 and 204 of W. South Coblin and Joseph Abraham Levi, *Francisco Varo’s Grammar of the Mandarin Language* (1703) (Amsterdam & Philadelphia: John Benjamins, 2000).

Nos. 2, 5, 6, and 8 are from the entry for *nán* 南 on p. 316 of Coblin, *Comparative Phonology of the Central Xiāng Dialects* (Taipei: Institute of Linguistics, Academia Sinica, 2011). **No. 2** is Jerry Norman’s 2006 Common Dialectal Chinese (CDC); **No. 5** is Modern Standard Chinese in *Hànyǔ pīnyīn* followed by the *Qièyùn* 切韻 System (QYS) reconstruction; **No. 6** is Coblin’s Common Central Xiāng reconstruction (CCX); and **No. 8** is a Xiāng dialect form.

No. 3 is a Manchu transcription of the Mandarin pronunciation of 南 (*nan*) from p. 14 of *Ilan-gurun-i bithe*, an 18th century Manchu edition of *Sān guó zhì* 三國志 (rpt. San Francisco: Chinese Materials Center, 1979).

No. 4 is a pair of Korean transcriptions of 南 (*nan*) giving the standard and popular readings from the Korean textbook for learning Mandarin titled *Bak Tongsa* 朴通事 (probably 17th c.), taken from p. 7 of the *Bak Tongsa* section of the modern photo-reprint *Nogeoldae, Bak Tongsa eonhae* 老乞大, 朴通事諺解, ed. by Hangukhak munheon yeon-guso 韓國學文獻研究所 (Seoul: Asea munhwasa 亞細亞文化社, 1973).

No. 7 is the Manchu word *julergi*, meaning ‘south,’ from *Wù míng lèi jí* 物名類集 (probably early Qīng), held by the Bibliothèque nationale de France, available at <http://gallica.bnf.fr/ark:/12148/btv1b9002884c> (last accessed Nov. 8, 2013).

Nos. 9 and 15 are both from a facsimile of an early 18th c. edition of the *Guāngyùn* 廣韻. **No. 9** is the character itself and **15** is the *fānqiè* 反切, from p. 221 of Chén Péngnián 陳彭年 (961-1017) et al., *Jiàozhèng Sòng běn Guāngyùn* 校正宋本廣韻 (rpt. Taipei: Yiwén yīnshūguǎn, 1984).

No. 10 is the character 南 taken from slip #2 of a Warring States manuscript now known as “Wǔ wáng jiàn zuò” 武王踐阼, reproduced in Mǎ Chéngyuán 馬承源, ed., *Shànghǎi bówùguǎn cáng Zhànguó Chǔ zhúshū* 上海博物館藏戰國楚竹書 (Shànghǎi: Shànghǎi gǔjí chūbǎnshè, 2008), vol. 7, p. 16.

No. 12 is a reproduction of a bronze inscription form of 南 from a late Western Zhōu vessel known as the *Liáoshēng xǔ* 麥生盥, from Chou Fa-kao 周法高, *Jīnwén gǔlín* 金文詁林 (Hong Kong: Chinese University Press, 1974), vol. 8 (*juàn* 6), entry 0797f.

No. 13 is Tibetan *lho*, meaning ‘south,’ from an Old Tibetan manuscript fragment of the *Old Tibetan Annals*, tentatively dated to the 9th c., discovered at Dūnhuáng and now held by the British Library; British Library Manuscript IOL Tib J 750, line 162.

No. 14 is a Korean transcription of 南 (*nam*) from *Hongmu jeong-un yeokhun* 洪武正韻譯訓 (1455) by Sin Sukju 申叔舟 (1417-1475), a modified and annotated version of the Chinese rime dictionary *Hōngwǔ zhèngyùn* 洪武正韻 (1375); it is taken from p. 87 of the modern photo-reprint of the 1455 edition, *Hongmu jeong-un yeokhun* (Seoul: Goryeo daehakkyo chulpanbu 高麗大學校出版部, 1974).

No. 16 is the small seal script (*xiǎozhuàn* 小篆) form of 南 reproduced in Xǔ Shèn 許慎, comp., *Shuōwén jiězì zhù* 說文解字注 (1807; rpt. Taipei: Líming wénhuà, 1991) p. 276 (6b:4a).

No. 17 is a ‘Phags-pa transcription of the Chinese pronunciation of 南 (*nam*) from the 14th century *Ménggǔ zìyùn* 蒙古字韻, p. 111 (2:21a) in *Xùxiū Sīkù Quánshū* 續修四庫全書, vol. 259 (Shànghǎi: Shànghǎi gǔjí chūbǎnshè, 1995).

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LANGUAGE AND LINGUISTICS MONOGRAPH SERIES 53

Edited by Richard VanNess Simmons and Newell Ann Van Auken

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