

## A Model for Chinese Dialect Evolution\*

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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 Sui 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 Sui 隋 (581-618) dynasty rimebook, the *Qièyùn* 切韻. Karlgren viewed this work as a record of a type of koiné

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\* *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 *Qièyùn* a composite phonological inventory and not the speech of a single place and time (Norman & Coblin 1995). Nonetheless, new *Qièyùn* reconstructions continued to appear; the idea that modern Chinese dialects descend from the *Qièyùn* 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 *Qièyùn* 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 *Qièyùn* strongly supports such a view, and this is the prevalent view at the present time.<sup>1</sup> Rather than being a straightforward record of a language existing at a certain point in time and space, the *Qièyùn* gives us a complex diasystem whose several components are not easy to disentangle. Nor was the *Qièyùn* 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 *Qièyùn* in the 20<sup>th</sup> century (Zhōu 1966).

How do these views affect the idea of reconstruction? They tell us that if we do a literal reconstruction of the *Qièyùn*, 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 *Qièyùn* 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 *Qièyùn* 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 *Qièyùn* provides us with an objective and historical basis for the study of

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<sup>1</sup> Two good accounts of the nature of the *Qièyùn* 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.<sup>2</sup> 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

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<sup>2</sup> 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 *Qièyùn* as a basic datum of Chinese historical linguistics; what I propose, rather, is a reinterpretation of its role.

The *Qièyùn* 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 *Qièyùn* 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 *Qièyùn* 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 *Qièyùn* 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 *Qièyùn* 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 *Qièyùn* 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):<sup>3</sup>

<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).

<sup>3</sup> 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	kã
SZ	pø	tø	kø
NC	pøn	tøn	køn
MX	pan	tøn	køn
GZ	pun	tyn	køn

	CDC * <i>an</i>		
	斑	單	間
<i>Tone</i>	1	1	1
BJ	pan	tan	tɕien
YZ	pã	tã	kã
SZ	pe	te	ke
NC	pan	tan	kan
MX	pan	tan	kian
GZ	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
<i>Tone</i>	1	5	2
BJ	kuan	kuan	huan
YZ	kuã	kuã	xuã
SZ	kue	kue	fiue
NC	kuan	kuan	uan
MX	kuan	kuan	van
GZ	kuan	kuan	wan

	CDC * <i>iuan</i>		
	泉	拳	選
<i>Tone</i>	2	2	3
BJ	tɕ'yan	tɕ'yan	ɕyan
YZ	tɕ'yẽ	tɕ'yẽ	ɕyẽ
SZ	ziɿ	ɕziø	siɿ
NC	tɕ'yøn	tɕ'yøn	ɕyøn
MX	ts'an	kian	sien
GZ	ts'yn	k'yn	syn

	CDC * <i>ian</i>		
	變	天	見
<i>Tone</i>	5	1	5
BJ	pien	t'ien	tɕien
YZ	piẽ	t'iẽ	tɕiẽ
SZ	piɿ	t'ir	tɕir
NC	pien	t'ien	tɕien
MX	pien	t'ien	kian
GZ	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
<i>Tone</i>	2	1	1
BJ	min	ɕin	tɕin
YZ	miŋ	ɕiŋ	tɕiŋ
SZ	min	sin	tɕin
NC	min	ɕin	tɕin
MX	min	sin	kin
GZ	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	tɕyŋ	yŋ	yŋ	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	kuən	wən	wən	mun	ts'yŋ	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:<sup>4</sup>

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>kǎn</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

<sup>4</sup> *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 Tóng hé (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 puān. CDC \*pon<sup>l</sup>. Xiàmén 廈門 (XM) [puā<sup>1</sup>], Fúzhōu 福州 (FZ) [puan<sup>1</sup>], Jiàn'ōu 建甌 (JO) [puen<sup>1</sup>], Jiànyáng 建陽 (JY) [voij<sup>9</sup>].

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 [voij<sup>9</sup>] 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 than Mǐn vocalism in many cases harkens back to EC.

(2) 懶 'lazy'. EC *\*(d)lan<sup>x</sup>*. QY *lân*:. CDC *\*lan<sup>4</sup>*. XM [tuã<sup>6</sup>], FZ [tiaŋ<sup>6</sup>] (seen in the compound 懶蟲 [tiaŋ<sup>6</sup> thøyŋ<sup>2</sup>]), JO [tyeŋ<sup>4</sup>], JY [lyeŋ<sup>5</sup>].

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 [li<sup>3</sup>], FZ [li<sup>3</sup>], JO [ti<sup>4</sup>]; cf. Shíbēi 石陂 [di<sup>5</sup>], Dàtián 大田 [te<sup>4</sup>] (Oroshikise & Chén 1985).

鹿 'deer'. XM [lok<sup>8</sup>], FZ [løy<sup>8</sup>], JO [lu<sup>4</sup>], JY [lo<sup>8</sup>], Cháozhōu 潮州 (Jiēyáng 揭陽) [tek<sup>8</sup>], Hǎifēng 海豐 [tiok<sup>8</sup>] (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*<sup>c</sup>. Thai [khra:n<sup>4</sup>], Lóngzhōu 龍州 [kjan<sup>4</sup>].

‘carp’: Proto-Tai \**mblai*<sup>alc</sup>, Thai [nai<sup>2</sup>], Lakkia [-plai<sup>4</sup>].

‘deer’: Proto-Tai \**glɔk*<sup>d</sup>, Lóngzhōu [kjo:k<sup>8</sup>], Língāo 臨高 [tsok<sup>8</sup>].

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 [kuã<sup>1</sup>], FZ [kaŋ<sup>1</sup>], Mùyáng 穆陽 [kan<sup>1</sup>], JO [xueŋ<sup>1</sup>], JY [xueŋ<sup>1</sup>].

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 [xuain<sup>1</sup>], Shūfāng 書坊 [xoeŋ<sup>1</sup>], Shíbēi [xuain<sup>1</sup>], Yǒngān 永安 [hǔm<sup>1</sup>], Shàowǔ 邵武 [hon<sup>1</sup>]. 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 <sup>5</sup>	xa <sup>1</sup>	--	xa <sup>5</sup>
橘	xi <sup>7</sup>	xi <sup>7</sup>	xi <sup>7</sup>	--
箕	xi <sup>1</sup>	xi	xi	--
韭	xiu <sup>3</sup>	xiu <sup>3</sup>	xiu <sup>3</sup>	xiu <sup>3</sup>
教	xau <sup>1</sup>	xau <sup>1</sup>	xau <sup>1</sup>	xɔ <sup>1</sup>

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 \**han*<sup>2</sup>. XM [kuã<sup>2</sup>], FZ [kaŋ<sup>2</sup>], JO [kueŋ<sup>3</sup>], Shíbēi [guain<sup>9</sup>].

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

旱 ‘dry, drought’. EC \**gan*. QY *yân*:. CDC \**han*<sup>4</sup>. XM [uã<sup>6</sup>], FZ [aŋ<sup>6</sup>], JO [ueŋ<sup>4</sup>], JY [ueŋ<sup>5</sup>]; cf. Shíbēi [fuaŋ<sup>5</sup>].

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 [fi] 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 <sup>1</sup>	sai <sup>1</sup>	sue <sup>1</sup>	sai <sup>1</sup>
麻 ‘sesame’	muã <sup>2</sup>	muai <sup>2</sup>	muε <sup>5</sup>	mai <sup>7</sup>
籬 ‘basket’	lua <sup>2</sup>	lai <sup>2</sup>	sue <sup>5</sup>	sai <sup>7</sup>
破 ‘break’	phua <sup>5</sup>	phuai <sup>5</sup>	phuε <sup>5</sup>	phai <sup>5</sup>

Finals from Common Mǐn *\*oi*

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

Note that FZ [-ai] and [-uai] are unconditioned variants. JO [-o] corresponds to [-ui] in JY: 螺 [sui<sup>2</sup>], 坐 [tshui<sup>8</sup>], 火 [khui<sup>3</sup>]. Now we can examine QY *xiámǔ* 匣母 words having these finals.

荷 ‘carry’. JO [kue<sup>4</sup>] ‘carry on the back’; Shíbēi [guai<sup>5</sup>] ‘carry at the side’; Shàowǔ [hai<sup>3</sup>] ‘carry on a pole’; Méixiàn Hakka [khai<sup>1</sup>] ‘carry’ (Huáng 1995:98).

夥 ‘many’. XM [ua<sup>6</sup>] (Douglas 1899) ([oã] in [bô oã] ‘not many’), FZ [uai<sup>6</sup>] (in [nuo<sup>8</sup> uai<sup>6</sup>] ‘how many’), Shūfāng [oe<sup>5</sup>] ‘many’, Shàowǔ [uai<sup>3</sup>] ‘id.’

禾 ‘rice plant’. JY [ui<sup>2</sup>], JO [o<sup>5</sup>], Shàowǔ [uai<sup>3</sup>]. Note that Yóuxī 尤溪, an Eastern Mǐn dialect, has [uai<sup>2</sup>].

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 *\*sian<sup>5</sup>*. XM [suã<sup>5</sup>], FZ [siaŋ<sup>5</sup>], JO [syen<sup>5</sup>], JY [syen<sup>5</sup>].

- (6) 泉 ‘spring, source’. EC \**dzan*. QY *dzjän*. CDC \**dzion*<sup>2</sup>. XM [tsuã<sup>2</sup>], FZ [tsuoŋ<sup>2</sup>], JO [tsyɛŋ<sup>5</sup>], JY [tsyɛŋ<sup>2</sup>].

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 [sian<sup>2</sup>] in [sian<sup>2</sup> chüi<sup>3</sup>] (Ibañez 1941-1943:43). Fúqīng 福清 also has a comparable form [sian<sup>2</sup>] (Féng 1993). The Fúzhōu form is not a regular correspondent and is probably due to literary influence.

- (7) 鱧 ‘yellow eel’. EC \*(*h*)*dan*. QY *zjän*:. CDC \**zhian*<sup>4</sup>. XM [tshuã<sup>6</sup>], FZ [tshian<sup>6</sup>], JO [syɛŋ<sup>6</sup>], JY [syɛŋ<sup>5</sup>], Shàowù [ʃien<sup>3</sup>].

The character *shàn* 鱧 does not appear in the *Guǎngyùn* 廣韻. In the *Jiyùn* 集韻 it appears with the *fǎnqiè* 反切 spelling 上演切. The character 鱧 is apparently an allograph of 鱠, 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 鱠 with the *fǎnqiè* 常演切 which is equivalent to the *Jiyùn fǎnqiè* for 鱧 (*zjän*:.). In the OC system of Baxter, 鱠 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 *gjon*-. CDC \**gian*<sup>6</sup>. XM [kiã<sup>6</sup>], FZ [kian<sup>6</sup>], JO [kyɛŋ<sup>5</sup>], JY [kyɛŋ<sup>6</sup>].

The JO tone is irregular.

## 5.2 EC \**on*

- (9) 斷 ‘break’. EC \*’*don*. QY *duân*:. CDC \**don*<sup>4</sup>. XM [tɿ<sup>6</sup>], FZ [tauŋ<sup>6</sup>], JO [toŋ<sup>6</sup>], JY [tuŋ<sup>5</sup>].
- (10) 卵 ‘egg’. EC \*(*h*)’*lon*. QY *luân*:. CDC \**lon*<sup>4</sup>. XM [nɿ<sup>6</sup>], FZ [lauŋ<sup>6</sup>], JO [soŋ<sup>6</sup>], JY [suŋ<sup>5</sup>].

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 // phonemically.) ‘Egg’ is a typical example of this correspondence. Several other examples are shown below:

螺 ‘snail’. EC \*(h)’loy. QY *luâ*. CDC \**lo*<sup>2</sup>. XM [le<sup>2</sup>], FZ [løy<sup>2</sup>], JO [so<sup>5</sup>], JY [sui<sup>2</sup>].

籃 ‘basket’. EC \*(h)’lam. QY *lâm*. CDC \**lam*<sup>2</sup>. XM [nã<sup>2</sup>], FZ [laŋ<sup>2</sup>], JO [saŋ<sup>5</sup>], JY [saŋ<sup>2</sup>].

露 ‘dew’. EC \*(h)’la. QY *luo-*. CDC \**lu*<sup>6</sup>. XM [lɔ<sup>6</sup>], FZ [lou<sup>5</sup>], JO [su<sup>6</sup>], JY [su<sup>6</sup>].

聾 ‘deaf’. EC \*(h)’lung. QY *lung*. CDC \**lung*<sup>2</sup>. XM [laŋ<sup>2</sup>], FZ [løyŋ<sup>2</sup>], JO [soŋ<sup>5</sup>], JY [soŋ<sup>2</sup>].

六 ‘six’. EC \*(h)’luk. QY *ljuk*. CDC \**liuk*<sup>8</sup>. XM [lak<sup>8</sup>], FZ [løyŋ<sup>8</sup>], JO ([ly<sup>4</sup>]), JY [so<sup>8</sup>].

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

笠 ‘rainhat’. EC \*(h)’lip. QY *ljəp*. CDC \**lip*<sup>8</sup>. XM [lueŋ<sup>8</sup>], FZ [liŋ<sup>8</sup>], JO [se<sup>6</sup>], JY [se<sup>8</sup>].

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 [lam<sup>1</sup> me<sup>0</sup>] ‘kind of basket’, [liuk<sup>7</sup>] ‘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 [tɕiu<sup>7</sup>], Yao Biaomin [klo<sup>7</sup>].

‘rainhat’. Proto-Tai \**kliop*<sup>7</sup>.

‘snail’. Yao Mian [kuei<sup>1</sup>], Yao Bianmin [kli<sup>1</sup>], Proto Miao-Yao \**klwei*<sup>1</sup> (Wáng & Máo 1995).

(11) 管 ‘pipe, tube’. EC \*’*kon*. QY *kuân*:. CDC *kuon*<sup>3</sup>. XM [kŋ<sup>3</sup>], FZ [kuoŋ<sup>3</sup>], JO [koŋ<sup>3</sup>], JY [kuŋ<sup>3</sup>].

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<sup>w</sup>an*, 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 [kuāi<sup>1</sup>], FZ [kuoŋ<sup>1</sup>], JO [kueŋ<sup>1</sup>], JY [kyeŋ<sup>1</sup>].

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 *bjwɔn-*. CDC *\*van<sup>6</sup>*. XM [pŋ<sup>6</sup>], FZ [puoŋ<sup>6</sup>], JO [pueŋ<sup>6</sup>], JY [puŋ<sup>6</sup>].

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* 飯 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:<sup>5</sup>

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

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<sup>5</sup> 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 *dźjwän*. CDC *\*jion*. XM [tsun<sup>2</sup>], FZ [suŋ<sup>2</sup>], JO [yeŋ<sup>3</sup>], JY [yeŋ<sup>9</sup>].

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 *\*yon<sup>4</sup>*. XM [hŋ<sup>6</sup>], FZ [huoŋ<sup>6</sup>]; cf. Yǒngān [ʃyẽ<sup>4</sup>], Shàowǔ [fiẽ<sup>3</sup>] (< *\*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*<sup>4</sup>. XM [pĩ<sup>6</sup>], FZ [pieŋ<sup>6</sup>], JO [pieŋ<sup>4</sup>], JY [pieŋ<sup>6</sup>]. Cf. Shíbēi [biŋ<sup>5</sup>], Chóngān [wiŋ<sup>5</sup>].

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 [ŋja<sup>8</sup> tsie<sup>3</sup>].

- (17) 前 ‘front’. EC \*’*dzen*. QY *dzien*. CDC \**dzian*<sup>2</sup>. XM [tɕiŋ<sup>2</sup>], FZ [seiŋ<sup>2</sup>], JO [tɕhiŋ<sup>5</sup>], JY [tɕhiŋ<sup>2</sup>].

- (18) 蓮 ‘lotus’. EC \*(h)*len*. QY *lien*. CDC \**lian*<sup>2</sup>. FZ [leiŋ<sup>2</sup>], JO [laiŋ<sup>5</sup>], JY [laiŋ<sup>2</sup>].

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

- (19) 肩 ‘shoulder’. EC \*’*ken*. QY *kien*. CDC \**kian*<sup>1</sup>. XM [kiŋ<sup>1</sup>], FZ [kiŋ<sup>1</sup>], JO [kaiŋ<sup>1</sup>], JY [kaiŋ<sup>1</sup>].

- (20) 硯 ‘inkstone’. EC \*(h)’*ngen*. QY *ngien*-. CDC \**ngian*<sup>6</sup>. XM [hi<sup>6</sup>], FZ [ŋieŋ<sup>5</sup>], JY [ŋaiŋ<sup>6</sup>].

- (21) 面 ‘face’. \*EC \*(h)*men*. QY *mjän*-. CDC \**mian*<sup>6</sup>. XM [bin<sup>6</sup>], FZ [meiŋ<sup>5</sup>].

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

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

The only relevant Mǐn form is JY [sueŋ<sup>2</sup>].

- (23) 剪 ‘shear’. EC \*’*tsen*. QY *tsjän*-. CDC \*’*tsian*<sup>3</sup>. FZ [tseiŋ<sup>3</sup>], JO [tsaiŋ<sup>3</sup>], JY [tsaiŋ<sup>3</sup>].

- (24) 辦 ‘manage’. EC \*’*bren*. QY *bän*-. CDC \*’*ban*<sup>6</sup>. FZ [paiŋ<sup>6</sup>], JO [paiŋ<sup>6</sup>], JY [paiŋ<sup>6</sup>].

Cf. Fúqīng [peŋ<sup>6</sup>].

- (25) 斑 ‘speck on the skin’. EC \*(n)*pren*. QY *pan*. CDC \*’*pan*<sup>1</sup>. FZ [peiŋ<sup>1</sup>], JY [waiŋ<sup>9</sup>].

- (26) 揀 ‘select’. EC \*’*kren*. QY *kan*-. CDC \*’*kan*<sup>3</sup>. XM [kiŋ<sup>3</sup>], JO [kaiŋ<sup>3</sup>], JY [kaiŋ<sup>3</sup>].

- (27) 閑 ‘leisure’. EC \*(n)*gren*. QY *yän*. CDC \*’*han*<sup>2</sup>. XM [iŋ<sup>2</sup>], FZ [eiŋ<sup>2</sup>], JO [aiŋ<sup>3</sup>].

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

### 5.4 EC \*in

- (28) 扁 ‘flat’. EC \*’*pin*. QY *pien*:. CDC \**pian*<sup>3</sup>. XM [pĩ<sup>3</sup>], FZ [pieŋ<sup>3</sup>], JO [piŋ<sup>3</sup>], JY [pieŋ<sup>3</sup>].

Chóngān [wiŋ<sup>9</sup>] implies an EC \*(*n*)’*p*.

- (29) 天 ‘sky’. EC \*’*thin*. QY *thien*. CDC \**thian*<sup>1</sup>. XM [thĩ<sup>1</sup>], FZ [thieŋ<sup>1</sup>], JO [thiŋ<sup>1</sup>], JY [hieŋ<sup>1</sup>].

- (30) 年 ‘year’. EC \*(*h*)*nin*. QY *nien*. CDC \**nian*<sup>2</sup>. XM [nĩ<sup>2</sup>], FZ [nieŋ<sup>2</sup>], JO [niŋ<sup>5</sup>], JY [nieŋ<sup>2</sup>].

The \*(*h*) is shown by Cháoyáng 朝陽 [hĩ<sup>2</sup>] and the upper register tone in Shàowǔ [nin<sup>7</sup>].

- (31) 眠 ‘sleep’. EC \*’*min*. QY *mien*. CDC \**mian*<sup>2</sup>. XM [bin<sup>2</sup>], FZ [miŋ<sup>2</sup>], JO [meŋ<sup>2</sup>], JY [miŋ<sup>2</sup>].

In Mǐn dialects *mián* 眠 is not the ordinary word for sleep but it occurs in a number of expressions referring to sleeping: XM [bin<sup>2</sup> baŋ<sup>6</sup>] ‘to dream’, FZ [tshuŋ<sup>3</sup> miŋ<sup>2</sup>] ‘sleepy’, JY [miŋ<sup>2</sup> moŋ<sup>6</sup>] ‘dream’.

- (32) 鱗 ‘fish scale’. EC \*(*h*)*lin*. QY *ljen*. CDC *lin*<sup>2</sup>. XM [lan<sup>2</sup>], FZ [liŋ<sup>2</sup>], JO [saiŋ<sup>5</sup>], JY [saiŋ<sup>2</sup>].

- (33) 緊 ‘tight’. EC \**kin*. QY *kjien*:. CDC \**kin*<sup>3</sup>. XM [kin<sup>3</sup>], FZ [kiŋ<sup>3</sup>], JO [keŋ<sup>3</sup>], JY [kiŋ<sup>3</sup>].

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*<sup>1</sup>.

### 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 *\*ken<sup>1</sup>*. XM [kun<sup>1</sup>], FZ [kyŋ<sup>1</sup>].
- (35) 根 ‘root’. EC *\*kun*. QY *kən*. CDC *\*ken<sup>1</sup>*. XM [kun<sup>1</sup>], JO [kyeŋ<sup>1</sup>], JY [kyeŋ<sup>1</sup>].
- (36) 恩 ‘favor’. EC *\*un*. QY *ʔən*. CDC *\*en<sup>1</sup>*. XM [un<sup>1</sup>], FZ [ouŋ<sup>1</sup>].
- (37) 痕 ‘scar’. EC *\*gun*. QY *ɣən*. CDC *\*hen<sup>2</sup>*. XM [hun<sup>2</sup>], FZ [houŋ<sup>1</sup>].
- (38) 振 ‘shake, tremble’. EC *\*tun*. QY *tʃjueŋ-*. CDC *\*cin<sup>5</sup>*. XM [tsun<sup>5</sup>], FZ [tsuŋ<sup>1</sup>].

Note the tonal anomaly in the FZ form.

- (39) 忍 ‘endure’. EC *\*nun*. QY *nʒjen:*. CDC *\*nin<sup>3</sup>*. XM [nuŋ<sup>3</sup>], FZ [nuŋ<sup>3</sup>].
- (40) 巾 ‘towel’. EC *\*kun*. QY *kjen*. CDC *\*kin<sup>1</sup>*. XM [kun<sup>1</sup>], FZ [kyŋ<sup>1</sup>], JY [kyeŋ<sup>1</sup>].
- (41) 近 ‘near’. EC *\*gun*. QY *gʒən:*. CDC *\*gin<sup>4</sup>*. XM [kun<sup>6</sup>], FZ [køyŋ<sup>6</sup>], JO [kyeŋ<sup>6</sup>], JY [kyeŋ<sup>5</sup>].
- (42) 銀 ‘silver’. EC *\*ngun*. QY *ngjen*. CDC *\*ngin<sup>2</sup>*. XM [gun<sup>2</sup>], FZ [ŋyŋ<sup>2</sup>].
- (43) 隱 ‘hidden’. EC *\*un*. QY *ʔjən:*. CDC *\*in<sup>3</sup>*. XM [un<sup>3</sup>], FZ [yŋ<sup>3</sup>].

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*<sup>3</sup>. XM [pun<sup>3</sup>], FZ [puoŋ<sup>3</sup>], JO [poŋ<sup>3</sup>], JY [puŋ<sup>3</sup>].
- (45) 豚 ‘piglet’. EC *\*(h)’dun*. QY *duən*. CDC *\*dun*<sup>2</sup>. XM [thun<sup>2</sup>], FZ [thouŋ<sup>2</sup>].
- (46) 頓 ‘a meal’. EC *\*’tun*. QY *tuən*-. CDC *\*tun*<sup>5</sup>. XM [tŋ<sup>5</sup>], FZ [tauŋ<sup>5</sup>], JY [tuŋ<sup>5</sup>].
- (47) 溫 ‘warm’. EC *\*’un*. QY *ʔuən*. CDC *un*<sup>5</sup>. XM [un<sup>1</sup>], FZ [uŋ<sup>1</sup>], JY [oŋ<sup>1</sup>].
- (48) 分 ‘divide’. EC *\*pun*. QY *pjuən*<sup>3</sup>. CDC *\*fun*<sup>1</sup>. XM [pun<sup>1</sup>], FZ [puoŋ<sup>1</sup>], JO [puəŋ<sup>1</sup>], JY [puŋ<sup>1</sup>].
- (49) 春 ‘spring’. EC *\*thun*. QY *tshjuen*. CDC *\*chiun*<sup>1</sup>. XM [tshun<sup>1</sup>], FZ [tshuŋ<sup>1</sup>], JO [tshoiŋ<sup>1</sup>], JY [theŋ<sup>1</sup>].
- (50) 雲 ‘cloud’. EC *\*(h)wun*. QY *juən*. CDC *\*yun*<sup>2</sup>. XM [hun<sup>2</sup>], FZ [huŋ<sup>2</sup>].

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*<sup>1</sup>.
- (52) 眼 ‘eye’. EC *ngrun*. QY *ngan*:. CDC *\*ngan*<sup>4</sup>.
- (53) 限 ‘limit’. EC *\*grun*. QY *yǎn*:. CDC *\*han*<sup>4</sup>. XM [an<sup>6</sup>], FZ [aiŋ<sup>6</sup>].

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

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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) 提出的啞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