

COMMON CHINESE AND EARLY CHINESE MORPHOLOGY

DAVID PRAGER BRANNER

UNIVERSITY OF MARYLAND

Most of the evidence used in the reconstruction of early Chinese is derived from data that is fundamentally textual in nature, supplemented by extrapolation from non-Chinese languages. Relatively little evidence comes directly from modern forms of Chinese. This is especially true in the study of early morphology. This paper proposes some principles for evaluating dialect evidence for early Chinese morphology. It is observed that although morphology is found in many modern dialects in various productive forms, these forms appear to be local and should not be pushed back into our reconstruction of the early language. The best attested form of classical morphology, what has been called derivation by tone change (*sishēng biéyì*), is supported primarily by textual evidence rather than productive modern examples; it appears to have been lexicalized from an early time, and its place within early Chinese cannot be said to be supported by dialect evidence.

Based on original field-work from 1992 to 1996, the author presents data for two morphological features recently discussed by Laurent Sagart: a prefix **k-* and an infix **-r-*. It is argued that the **k-* prefix is the ancient feature best supported in modern dialects, although some of Sagart's proposals about the development of **k-* require further research. What Sagart considers an infix **-r-* is here considered to be a form of sound symbolism rather than morphology. It is also argued that morphology was probably not a feature of whatever standard spoken language may have existed in late Warring States and Hàn times, since Hàn-time Chinese, in spite of their strong tendency to systematize all forms of knowledge, do not seem to have left anything like a paradigm of the morphology in their language. The examples discussed in this paper are therefore considered to have held only reliquary or non-standard status in Hàn times.

In memory of Robert Austerlitz (1923–1994)

1. INTRODUCTION

THIS PAPER CONSIDERS some modern dialect data that is relevant to the question of morphology in early Chinese.¹ Morphology consists of the principles governing word formation, especially the processes of inflection (regular changes a word undergoes) and derivation (affixation). The distinction between inflection and derivation originates with Marcus Terrentius Varro (116–27 B.C.E.), who called them “natural declension” and “voluntary declen-

sion” (Taylor 1995). That distinction may, however, be somewhat artificial in languages not of Greco-Roman origin. While these processes, especially inflection, are not usually considered present in Chinese on any large scale, a number of morphological functions have been posited for early Chinese and incorporated into reconstructions. Serious work was pioneered by French-trained sinologists, above all Henri Maspero (1883–1945). An early attempt, and the one perhaps best known to the greater linguistic world, is the ablaut case-system that Bernhard Karlgren proposed for early Chinese personal pronouns (1920), although that hypothesis was decisively demolished on philological grounds by George Kennedy (1956). Laurent Sagart's innovative *Roots of Old Chinese* (1999) is a recent effort to assemble evidence for the larger question of early morphology, and I shall examine here the two of Sagart's proposals that I consider the best supported.

In another paper (Branner 1998) I have attempted to document the different backgrounds of the Western and native Chinese approaches to the evidence for early morphology. Premodern Chinese scholars, of course, histori-

This paper was delivered on 20 August, 2002, at the 11th meeting of the International Association of Chinese Linguists, at Aichi Prefectural University, Japan. My views on my data for the **-r-* infix were discussed in my 1995 paper.

¹ I use the term “early Chinese” to refer to what is also called “Old Chinese” or “Archaic Chinese,” because those terms seem to suggest a clearly defined linguistic entity. In fact, early Chinese is imprecisely defined, and is reconstructed using materials of greatly varying dates.

cally treated nearly all grammatical issues within the restrictively lexicographic model inherited from the *Hàn* scholia. A number of early Manchu-period scholars took this model to an extreme degree, which I have termed “purist.” The Western treatment of early Chinese, in contrast, seems from earlier times to have viewed the absence of an obvious derivational system as a kind of defect, to be remedied by the reconstruction of “lost” morphology. The “purist” and “reconstructionist” models are treated in detail in my 1998 paper, but I shall have a few words to say about them at the end of this one.

The reconstruction of early Chinese has depended most heavily on coordinating medieval phonology with early rhyming and *xiéshēng* 諧生 character structure. Although a certain number of reconstructed early Chinese features find support in the most conservative modern dialects, dialect evidence has been no more than a peripheral element in the study of early Chinese. In the case of early Chinese morphology, however, the usual sources can contribute very little, and scholars tend to turn for support to Tibeto-Burman languages and their reconstructed ancestor, proto-Tibeto-Burman. Reconstructed proto-Tibeto-Burman is not thought to be Chinese, however, nor any form of Chinese; it is a sister language to early Chinese, believed by its proponents to share a common ancestor with Chinese. For this reason, morphology in reconstructed Tibeto-Burman might be projected backwards into proto-Sino-Tibetan, but it makes relatively weak evidence for morphology in early Chinese itself. Even when comparable phonetic tokens can be identified in early Chinese, there is a methodological problem in interpreting them by way of Tibeto-Burman, moving as it were first backward to the putative ancestor and then forward into early Chinese. Much stronger would be native morphology in established forms of Chinese. It is with such internal Chinese evidence that this paper is concerned.

For the purposes of discussion here I introduce the concept of “Common Chinese,” meaning a notional meta-system comprising all modern varieties of Chinese (also Branner 2000: 160–66). True morphology, if it did once exist, is no longer productive in Common Chinese. That is, productive examples of morphology may easily be identified in many individual varieties of Chinese, but no such system has been found in a wide variety of dialects, nor does any appear relatable to a single, ancestral system. It is simplest to view them as having arisen independently or preserving older systems that were always regional. Examples that can be related to mainstream Classical evidence, on the other hand, are vanishingly rare. For instance, diminution and nominalization in many varieties of Northern Chinese are accomplished by rhotacization:

plain form: *huà* 畫 ‘to paint’; “painting” as a bound form
nominalized: *huàr* 畫兒 ‘painting’

plain form: *méi qì* 沒氣 ‘to be winded, out of breath’
diminuted: *méi qìr* 沒氣兒 ‘to have died, passed one’s last breath’²

No phonologically comparable diminutive process is found in Classical evidence or reported for the other major dialect groups, so diminution and nominalization by rhotacization cannot be assigned to “Common Chinese” as I have defined it, only to the Northern group.³

Morphology in early Chinese is studied using three principal kinds of data. They are essentially different, though scholars agree that they should be seen as ultimately interdependent: A) internal evidence from the written phonological tradition; B) comparisons with Tibeto-Burman morphology; C) evidence internal to spoken Chinese languages, if possible apart from influence by the written phonological tradition, that is, lower diglossic registers or styles of Chinese.⁴

The best-known Classical example of morphology belongs to both types A and B, but not C—the derivation by tone change treated by Zhōu Zǔmó 周祖謨 (1966[1946]), Gordon Downer (1959), and Tsu-lin Mei (1980). There are several different processes evident in the medieval sources, apparently not all of the same date, but the best known is the case of verbs that become nominalized when they change from their original tone into the *qùshēng* 去聲 tone category; that is an example of category A, above. The *qùshēng* tone category is thought to have originated in an early Chinese final *-s. It is this *-s that would have had the actual derivational function.⁵

² Some Mandarin speakers, not from Peking, have told me that there is no difference between the *qì* forms. However, my informant was most insistent about the difference. For sources of dialect data, see the references, below. My views on the meaning and use of dialect evidence are discussed in detail in Branner 2000: 9–37.

³ Like Mandarin, where the suffixed morpheme is identified as *ér* 兒 ‘son’, some Mǐn and dialects use a morpheme meaning “son” as a diminutive suffix, but the number appears to be rather more limited than is sometimes claimed. In particular, Mǐnnán *á* does not seem closely related to the suffix *kiáⁿ* (Branner 1994, 1999d).

⁴ For a concise discussion of diglossia, see Schiffman 1997.

⁵ See Branner 1998 for extensive discussion of the intellectual history of this subject. Mei’s 1980 essay on the subject is essential reading on the strata in the medieval evidence. For explanation of the various transcription systems used in this paper, see the references.

plain verbal form: 知 *zhī* {*tri*_{3b}} < **trje* 'to know'
 nominalized form: 知 *zhì* {*triH*_{3b}} < **trjes* 'knowledge'
 (also written 智)

plain verbal form: 乘 *chéng* {*zyeng*₃} < **zying* 'to ride'
 nominalized form: 乘 *shèng* {*zyengH*₃} < **zyings*
 'carriage with team of horses'

plain verbal form: 傳 *chuán* {*druan*_{3b}} < **drjon*
 'to transmit'
 nominalized form: 傳 *zhuàn* {*druanH*_{3b}} < **drjons*
 'a record'

A similar suffix *-s* is found in some Tibeto-Burman languages, an example of category B, above. Across Common Chinese as a whole this feature may be said to survive, but evidently only where lexicalized; it is no longer productive and may not have been since as early the late sixth century, if Yán Zhītūi 顏之推 (531–591?) is to be believed. That is, even if it was productive at one time, it no longer is. Many individual examples survive in various forms of Chinese merely because they were entrenched, as solitary words, in canonical lexicographic sources. And so this example does not have evidence in category C.

In this paper I am chiefly concerned with evidence belonging to category C, which seems to me the most neglected and most difficult to find of the three types. A morphological system that remains productive today and is not restricted to a single, cohesive dialect group would be powerful evidence of its presence in the early language.

Few clear examples of the modern survival of early Chinese morphology have been described in print until recently. (Of course, material of this kind has scarcely been a prominent target of field research in Chinese before now, so other cases may simply be waiting to be noticed.) One example was proposed by Edwin Pulleyblank in his article on word families: he proposed relating the Mǐn 閩 contrast between aspirated and unaspirated obstruent initials in lower register tones to the Tibetan 'a-chung or "voiced *h*" prefix (1973: 114). However, although the Mǐn contrast may perhaps be the relic of an earlier morphological process, that process is certainly no longer active in attested Mǐn dialects. Note, too, that South Coblin (1995) has shown the 'a-chung symbol in Tibetan itself to have been a diacritic of varying usage, and not by any means simply a laryngeal sound, prefix or otherwise, so that this example may not be viable without further evidence.

Another example was proposed by Chang Song-hing and Lǐ Rúlóng (1992). They cite some twenty pairs of words in which nasal and stop endings alternate in colloquial Mǐnnán words of related meanings. For instance:

/uan¹/ ~ /uat⁷/ 'to turn, bend';
 /kxim²/ ~ /khip⁸/ 'to catch in the hand'.

They consider this alternation to be an example of "derivation" (*pàishēng* 派生) but do not explain the nature of the semantic relationship involved. They also do not say whether it is productive, but my field experience leads me to think it is not. There are many comparable examples in medieval and early Chinese, and that would seem to hold promise for the recovery of a true Common Chinese morphological pattern, except that the nature of the semantic relationship has never been pinned down satisfactorily. The term Chang and Lǐ use for the relationship between nasal and stop endings is *yáng-rù duìzhuǎn* 陽入對轉 "interchange between nasal and stop codas," introduced by the philologist Kǒng Guǎngsēn 孔廣森 (1752–1786) in his study of early Chinese rime groups (1966[1800: 1.2b]). In early Chinese, too, the semantic relationship between forms displaying this alternation has never been pinned down. Without knowing the nature of the relationship, it is hard to settle an opinion on the significance of Chang and Lǐ's data. Perhaps future fieldwork will give us more complete data with which to advance that investigation.

Let us return to the question of comparative evidence for morphology. To date, the feature cited by Pulleyblank is found in Chinese only within Mǐn, and the specific forms cited by Chang and Lǐ only within Mǐnnán. The goal of genetic classification demands, to my mind, that relics ought to be attested in at least two different sources of evidence, otherwise what we suspect to be reliquary may well be a local development or borrowing that ought not to be reconstructed into earlier forms of the common language. Two different sources of evidence could mean two significantly different dialect groups, or it could imply clear, mainstream ancient evidence as well as evidence from a modern dialect.

Among the many features proposed by Laurent Sagart, two meet this criterion. As it happens, each of them appears in the Mǐn and Jīn 晉 dialect groups. These two groups are remote from each other in geography and typology, and so fulfill the requirement of a genetic interpretation (even though Sagart is a proponent of cladistics, which in principle views shared innovations rather than shared relics as the basis of classification). Because Jīn and Mǐn are at opposite ends (north and south) of the Chinese linguistic area, we can believe that they represent the shell of an older spoken language replaced in the intervening areas by a more newly formed and less conservative kind of Chinese.

It is the purpose of this paper to consider other dialect evidence pertaining to these two relics. The first is a reconstructed prefix **k-* assigned a number of functions

TABLE 1

/ka ¹ tsua ⁸ /	/ka ¹ tsau ³ /	
‘cockroach’	‘flea’	
螞蟻	狡蟲	<i>Huìjǐ yǎsútōng shíwūyīn</i> (1818: 4.80, 6.30);
螺螿/螿	□蚤	<i>Zēngbǔ Huìyīn</i> (1820: 4.19b, 5.9a); ^a
螞蟻	蛇蝶/狡蚤/狡蚋	<i>Dùjiāngshū shíwūyīn</i> (n.d.: 169, 41, 184);
—	—	<i>Zēngbǔ Huìyīn miàowù</i> (1831).

^a The *Zēngbǔ Huìyīn* writes 蚤 for the second syllable, but evidently 蚤 is intended.

having at their core the meaning “discreteness” (Sagart 1999: 98–107). The second is what Sagart reconstructs as early Chinese infixed *-r-, which he identifies as connoting “distribution” of an action or object (1999: 117). Prior to the publication of Sagart’s book I had collected examples of both features in my own fieldwork. Since he has now described them in print, I shall key my presentation to his, discussing first prefix *k-, then reduplicated forms with initial *l* in the second syllable.

2. THE *K- PREFIX

Sagart’s 1999 book argues for the reconstruction of a morphological prefix *k- in early Chinese. Although clusters with *kl- had long been reconstructed, it was not until Maspero’s 1930 article that a derivational function was proposed for them. There is a well-described verbal prefix [kəʔ] in various Jin dialects that frequently involves momentary, repeated, or continuous action. Sagart observes that an identical syllable occurs with count-nouns in some forms of Jin and that it is similar to a syllable /ka¹/ appearing in some count-nouns and verbs of repeatable action in the Mǐnnán dialect of Amoy [Xiàmén] 廈門. Based on this parallel appearance in widely separated varieties of Chinese, Sagart proposes that they represent the survival of an initial *k- that had similar morphological functions. He adds some evidence from early Chinese texts, but I think it is insignificant by comparison to the dialect evidence.

Sagart’s prime Mǐn evidence for *k- is Amoy /ka¹/, which appears as what he considers a prefix in a variety of colloquial words, some of them relating to innocuous wild animals and vermin:⁶

/ka¹ tsua⁸/ ‘cockroach’;
/ka¹ tsau³/ ‘flea’;

⁶ All forms from Douglas 1899: 186–87; see also his cross-references for fuller glosses. There is a list of sources of dialect data in the references at the end of this paper.

/ka¹ tse²/ ‘cicada’⁷;

/ka¹ tshio²/ ‘a kind of small, boneless sea creature’;

/ka¹ tsui¹/ ‘turtledove’;

/ka¹ leŋ⁶/ ‘the black and white mynah bird’.

An initial syllable /ka¹/ also occurs in other native-looking words, including plants and tools as well as some verbs (discussed below).

It would be natural to identify /ka¹/ as a type of prefix for wild or feral plants and animals, of the same basic kind as *lǎo* 老, *huáng* 黃~蟻, *hú* 胡~葫~蝴, etc. (see Branner ms.) *Hú* 胡, in fact, would be the most appropriate candidate to write /ka¹/ as a *běnzì* 本字 or “etymological character,” since its phonological value in the early Chinese formal system is *ga, which must have sounded not unlike Amoy /ka¹/.⁸ But in point of fact, within the Mǐnnán lexicographic tradition /ka¹/ is not assigned a regular character, indicating that it has not been felt to be a unitary morpheme.

That is no serious obstacle to Sagart’s theory. Colloquial words in general are often represented very inconsistently in the traditional Mǐnnán character dictionaries (such as those collected by Âng 1993a, b). For instance, the well attested words for “cockroach” and “flea” are represented in Table 1.

⁷ Strictly speaking a Quánzhōu 泉州 word, not an Amoy word.

⁸ Note that in spite of the basic meaning “foreign,” not all words with the *hú* prefix in its written form necessarily refer to foreign things. Laufer, for example, names a number of plants that he says are native to China in spite of the presence of the prefix *hú* (1967[1919]: 195–202), and other examples are found in dialect. Here are some Wúzhái 梧宅 dialect names (where *hú* is rendered /fu²/) for familiar natural things that have a certain lowly or offensive quality:

fu² tshan¹ ‘garlic’ (literally, /fu²/ + “scallion”)

fu² khi² ‘leech’

fu² sæ² ‘fly (the insect)’

On the source of Wúzhái data, see the references.

2.1. Longer List of Amoy Forms

Below are the characters supplied in Campbell (1913) for a large number of Amoy words containing /ka¹/. Campbell's character assignments were made with native assistance in Japanese-governed Formosa, the literary characters having been based perhaps on Mackay (1876). They are compatible with the earlier assignments that clearly underlie Douglas' work and with material in older dialect rime-books. I observe that in Campbell it is most often nouns for which characters have been assigned. (The glosses below are mainly from Douglas 1899: 186–87 except where noted; I have converted the forms from Douglas's transcription following Branner 2000: 422.)

瞌睡	/ka ¹ tse ⁶ /, /tu ⁷ ka ¹ tse ⁶ / 'to nod in sleep' (Campbell 1913: 728, 289, 41 <i>ka-chē</i> , <i>tuh-ka-chē</i>);
交峽	/ka ¹ ia ⁸ / 'to take well in the market' (Campbell 1913: 289, 248 <i>ka-iáh</i>);
鯪蠟	/ka ¹ la ⁸ / 'a fish that tastes slightly like salmon' (Douglas 1899: 289 <i>ka-láh</i> ; Campbell 1913: 289, 417);
鯪□	/ka ¹ ban ⁶ / 'a kind of fish, not considered good eating' (Campbell 1913: 289 <i>ka-bāng</i> ; gloss from Barclay 1923: 89);
鷓鴣	/ka ¹ leŋ ⁶ / 'the magpie; more properly the black and white mina[h]: it can learn to speak a little' (Douglas 1899: 301 <i>ka-lēng</i> ; Campbell 1913: 289, 439);
菱蓬菜	/ka ¹ bua ⁸ tshai ⁵ / 'a sort of vegetable' (Campbell 1913: 289, 28, 79 <i>ka-bóah-chhài</i> ; first syllable also given as <i>kā</i> , (Campbell 1913: 291);
狡蚤	/ka ¹ tsau ³ / 'flea' (Campbell 1913: 289, 776 <i>ka-tsáu</i>);
狡蠶	/ka ¹ tsua ⁸ / 'cockroach' (Campbell 1913: 289, 782 <i>ka-tsóah</i>);
箒□	/ka ¹ lo ³ / 'half globular bamboo wicker vessel for holding rice' (also Douglas 1899: 315 <i>ka-ló</i> ; Campbell 1913: 289; Barclay 1923: 89 has a compound <i>kóng ka-ló</i> "to talk recklessly and foolishly," the empty basket representing empty talk);
江蟻	/ka ¹ tshio ² / 'a small edible shell-fish' (Douglas 1899: 82 <i>ka-chhiò</i> ; Campbell 1913: 289, 101);
鳩□	/ka ¹ tsui ¹ / 'the dove' (Campbell 1913: 289 <i>ka-tsui</i>);
甘棠樹	/ka ¹ tan ¹ tshiu ⁶ / 'a large tree with useless wood' (Campbell 1913: 289, 671, 110 <i>ka-tang-chhiü</i>);
家己	/ka ¹ ki ⁶ / 'oneself' (Campbell 1913: 318 <i>ka-kí</i> ; Douglas 1899: 187 also lists /ka ¹ ti ⁶ / <i>ka-tí</i> for Zhāngzhōu);

歸團	/ka ¹ nŋ ² / 'entire, complete' (Campbell 1913: 289, 520 <i>ka-nŋ</i> ; Douglas 1899: 338 has an alternate form <i>kui-nŋ</i> , which explains the graph used for the first syllable in Campbell);
筊簍	/ka ¹ lia ⁸ / 'a very large round bamboo wicker-work tray, used for drying things, or exposing them for sale' (Campbell 1913: 289, 442 <i>ka-liáh</i> ; Douglas 1899: 187 gives a second form /ka ¹ lue ² / <i>ka-lóe</i> , preferred in Tóngān 同安);
磕落	/ka ¹ lau ⁸ / 'to fall, to drop, as an inanimate object' (Campbell 1913: 289, 427 <i>ka-láuh</i>);
吉□	/ka ¹ pua ⁵ / 'cotton' (Campbell 1913: 290 <i>ka-pòà</i> ; Douglas 1899: 380 explain the name as "imitation of the Indian or Persian name <i>karpasí</i> "; cf. Laufer 1967[1919]: 488–492);
尻脊□	/ka ¹ tsia ⁷ /, /ka ¹ tsia ⁷ phiā ¹ / 'the back' (Campbell 1913: 290, 56, 576 <i>ka-chiah</i> , <i>ka-chiah phiā</i>);
傀儡戲	/ka ¹ le ³ hi ⁵ / 'puppet show' (Campbell 1913: 290, 427 <i>ka-lé-hì</i> ; Barclay 1923: 89 lists a number of compounds in which <i>ka-lé</i> refers contemptuously to the aborigines of Taiwan).

In the following examples, no character is assigned to /ka¹/:

□蟬	/ka ¹ tse ² / 'cicada' (Douglas 1899: 30 <i>ka-chē</i> indicates this is a Quánzhōu 泉州 form, equivalent to Amoy <i>am-pê-chê</i> and Zhāngzhōu 漳州 <i>am-pó-chê</i> ; Campbell 1913: 41);
□□□	/ka ¹ li ³ lo ² / 'not yet; not yet finished; yet distant; wide of the mark' (Campbell 1913: 290, 440, 465 <i>ka-lí-ló</i> ; Douglas lists many variant forms; Barclay 1923: 89 writes <i>iáu-bē ka-lí-ló</i> , which makes <i>ka-lí-ló</i> appear to mean "ready");
□□	/ka ¹ lio ² / 'words used in calling a dog' (Campbell 1913: 290, 455 <i>ka-liò</i>);
□陰	/ka ¹ iam ¹ / 'shivering; chilled' (Campbell 1913: 290, 248 <i>ka-iam</i>);
□怕□	/ka ¹ lun ³ sun ³ / 'to shiver with cold or fear; shivering feeling from eating something sour' (Campbell 1913: 290, 485, 660 <i>ka-lún-sún</i>);
撲□嚏	/pha ⁷ ka ¹ tshiu ⁵ / 'to sneeze' (Campbell 1913: 566, 290, 110 <i>phah-ka-chhiü</i>);
著□□	/tio ⁸ ka ¹ tsak ⁸ / 'slight obstruction in throat or nostrils' (Campbell 1913: 290 <i>tióh-ka-tsák</i>).

Plainly, the late premodern native tradition has not considered these /ka¹/ forms related. Rather, it is characteristic of Western reconstructionism to do so.

2.2. Diversity of the Dialect Evidence

In the great majority of attested cases, Amoy /ka¹/ precedes a dental initial (including semi-vowel *i*); it rarely precedes a labial or velar-laryngeal initial. So it may represent the relic not simply of **k-* but of an old dimidiated initial cluster such as **kt-* > **kət-*. Surely relevant is the fact that that Lóngyán 龍巖, a Mǐnnán dialect related to Amoy, has the short syllable /kat⁸/ for similar forms, in which the second syllable is in all cases dental:⁹

- /kat⁸ tsua⁴/ ‘cockroach’;
- /kat⁸ tsau³/ ‘flea’;
- /kat⁸ ni¹⁷+a/ ‘parrot’;
- /kat⁸ in¹⁷+a/ ‘kind of predatory bird that eats chickens (hawk?)’;
- /kat⁸ li¹²⁴⁷ ie⁴/ ‘armpit’.¹⁰

In extensive fieldwork in Lóngyán I have found only these five examples of the specific prefix /kat-/. Lóngyán has a few other suggestive forms from the Amoy list.

- /phat⁷ at⁷⁸ tshi⁷/ ‘to sneeze’, using a morpheme /at/ instead of the expected */kat/;
- /kat⁸ lo li²/ [kat † lo † li †] ‘to fall’, presumably related to Amoy *ka-láuh*; glossed by my informant as “to fall from a high place” (*diàoxialai* 掉下來). Note that the first syllable has a full tone value, and the second syllable, presumably the “etymological” syllable corresponding to Common Chinese 落, is unstressed. The informant identifies the isolation tone of /kat/ as /8/, but says that it cannot be used in isolation. His back-formation matches

⁹ For details on the sources and phonology of my Lóngyán data, see the references. The tone value of the Lóngyán syllable /kat/ is † in all these cases, which could be tone /7/ or tone /8/, indistinguishable because the sandhi values are identical in most environments. However, before tone /3/, an underlying tone /7/ would be expected to be pronounced ˩, so on this basis I have identified /kat/ in /kat † tsau³/, in “flea” as being in tone /8/ by elimination, and I assume /kat/ in the other examples is tone /8/, as well.

¹⁰ The morpheme /li¹²⁴⁷/ may be the same one in /thau² li¹²⁴⁷ kin¹+a/ ‘neck’. My practice in phonemicizing dialect data is to indicate a single tone category wherever possible. Where tone sandhi causes individual tone categories to merge, I try to determine the underlying value by reference to other words in the same dialect sample. Only when there is no clear way to distinguish the underlying tone do I write the tone value as a combination of numerals. (See Branner 2000: 405–6 for another statement of this practice.)

my conclusion about the noun-prefix, described in footnote 9.

Two other Lóngyán forms suggest the Amoy forms, but without evidence of */ka-/ or */kat-/:

- /lun³/ ‘to be afraid of’ (cf. Amoy /ka¹ lun³ sun³/);
- /lia⁴/ ‘large, shallow basket for drying rice’ (congruent phonologically to Amoy /lia⁸/, cf. Amoy /ka¹-lia⁸/).

Indeed, in the larger Mǐnnán region many of the Amoy forms of Douglas are now difficult to elicit in fieldwork, and comparable forms rare in published dialect data. In Taiwan, some of them appear in recent missionary dictionaries (Sprinkle et al. 1976, Marsecano and Ô et al. 1979, Embree et al. 1984), but as these works are part of a continuous lexicographic tradition it is impossible to know how many of the words were attested descriptively and how many copied from earlier missionary sources. In actual Taiwanese speech today I observe the verbal forms (“to sneeze,” “to shiver,” “to drop”) to be more prevalent than the nouns, perhaps because of the extensive modernization of language and society, even rurally. Apart from the Lóngyán forms cited above, there are fewer examples attested in Mǐn dialects other than the Mǐnnán of the Amoy area. Below are the Teochew [Cháozhōu 潮州] forms I have identified as suggesting Amoy /ka¹/, from a recent source (Choy 1991: 143–145):

- /ka¹ tsau³/ ‘flea’;
- /ka¹ tsua⁸/ ‘cockroach’;
- /ka¹ lau⁸/ ‘to drop’;
- /ka¹ thi⁵/ ‘to sneeze’;
- /ka¹ lo²/, /ka¹ li³ lo²/ ‘far off’ (cf. Lóngyán /ka¹ lo²/ ‘to have done well, to have come a long way’);
- /ka¹ nŋ²/ ‘whole, entire, intact’;
- /ka¹ ki⁶/ ‘onself’;
- /ka¹ pua⁵/ ‘cotton’;
- /ka¹ sau⁵/ ‘to cough’ (cf. Amoy /sau⁵/ (Douglas 1899: 411–412); Lóngyán /khat⁸ sau⁵/).

This mid-twentieth century list is far smaller than Campbell’s. Lóngyán’s /kat⁸/ is not matched by data in any other Mǐn dialect I have examined, and it would seem to be more conservative than Amoy and Teochew /ka¹/.

Lóngyán is not alone in diverging from Amoy. Among the common words in the long list, above, there are some inconsistencies within ordinary Mǐnnán dialects. The words for “the back (part of body)” and “person’s behind” vary noticeably (Table 2, variants boldfaced).

The Quánzhōu word for “the back” is inexplicable as a simple variant. I have found in fieldwork that informants

TABLE 2

	“the back”	“person’s behind”	source of data
<i>Teochew</i>	/ka ¹ tsia ⁷ /	/ka ¹ tshŋ ¹ /	(Choy 1991: 144–145);
<i>Amoy</i>	/ka ¹ tsia ⁷ /	/kha ¹ tshŋ ¹ /	(Douglas 1899: 187, 189);
<i>Zhangzhou</i>	/kha ¹ tsia ⁷ /	/kha ¹ tshuī ¹ /	(Douglas 1899: 187, 189);
<i>Quánzhōu</i>	/pa ¹ tsia ⁷ /	/kha ¹ tshŋ ¹ /	(Lín Liántōng 1993: 227–228);
<i>Lóngyán</i>	—	/khat ⁷⁸ tshī ¹ /	(original data). ^a

^a For “back” Lóngyán uses a form /au⁴ pue⁵ tsia⁷/; the expected form /kha¹ tsia⁷/ means “footprint.”

using /kha¹/ for these words generally etymologize the morpheme as the common Mǐnnán word for “foot.” But Lóngyán /khat-/ for “person’s behind” recalls the several forms with /kat-/ in that dialect (cf. also “to cough,” discussed above). There are probably other inconsistencies waiting to be discovered; in Ilan, a Taiwanese dialect systematically very close to Zhāngzhōu, I have recorded “to sneeze” as /pha⁷ kha¹² tshīū⁵/, with aspirated /kha¹/ . In many varieties of Taiwanese, “person’s behind” is actually /kha¹ tshŋ¹ phe³/, and /kha¹ tshŋ¹/ refers to the anus (/tshŋ¹/ “to perforate, make a hole in”; /phe³/, Amoy /phue³/ “cheek, bulge”).

Outside of mainstream Mǐnnán, the Mǐn dialects are, regrettably, not documented with anything like the thoroughness of the traditional missionary materials. But for Foochow [Fúzhōu] 福州 dialect, we do have good missionary and other documents. Foochow has a few forms suggestive of the Amoy examples:

- /ko² louŋ²/ ‘entire’ (Maclay and Baldwin 1944[1870]: 514, Lǐ Rúlóng et al. 1994: 115)
- /ka⁶ sak⁸/ ‘cockroach’ (Maclay and Baldwin 1944[1870]: 738; Lǐ Rúlóng et al. 1994: 97)
- /ka³ tsau³/ ‘flea’ (Maclay and Baldwin 1944[1870]: 301; Lǐ Rúlóng et al. 1994: 97)
- /ko¹ lo²/ ‘not yet’ (Maclay and Baldwin 1944[1870]: 370; I am considering this comparable to Amoy /ka¹ li³ lo²/ and Teochew /ka¹ li³ lo²/-/ka¹ lo²/).

The word for “flea” is striking because it is the principal form found in both the attested Mǐn and Jǐn data. But not only that; it is also found in standard Mandarin: *gèzao* 虻蚤, attested in written form by Mongol times and in spoken southern Mandarin by the late seventeenth century (Varo 2001[1695], “pulga”). It may be, in fact, that the existence of “flea” in both Mǐn and Jǐn is not purely reliquary, and is due to influence from Mandarin.

Foochow also has a number words of its own that may indicate the residue of an old *k- (or *kh-) prefix; all

have *l*- in the second syllable, which is more suggestive of a dimidiated *kr- cluster:¹¹

- /ka¹ laŋ¹ khi¹/ ‘slanting’ (Maclay and Baldwin 1944[1870]: 300; Lǐ Rúlóng et al. 1994: 95);
- /ko² lo⁶/ ‘scabies’ (Maclay and Baldwin 1944[1870]: 370; Lǐ Rúlóng et al. 1994: 114);
- /ko⁷ lou⁷ a⁶/ ‘armpit’ (Maclay and Baldwin 1944[1870]: 370; Lǐ Rúlóng et al. 1994: 115);
- /ko louŋ⁶/ ‘to rinse out’ (Lǐ Rúlóng et al. 1994: 115);
- /kho¹ lo¹/ ‘to snore’ (Lǐ Rúlóng et al. 1994: 173).

All seven of these examples display a kind of vowel harmony: the vowel of the first syllable is the same as the main vowel of the second.

2.3. Semantics of *k-

I have not yet addressed the question of semantics. Among the verbs in the lists above, “to sneeze,” “to cough,” “to doze off,” “to shiver,” “to drop,” and “catarrh” strongly suggest the repetitive or momentary sense that Sagart attributes to *k-. I think, however, that some of the others, notably Foochow /ka¹ laŋ¹ khi¹/ ‘slanting’ and Amoy /ka¹ li³ lo²/ ‘wide of the mark’ and /ka¹ ia⁸/ ‘to sell well’, are difficult to relate to this semantic core. As I have already suggested, there is no guarantee that any given word beginning with /ka¹/ (Amoy, Teochew) or /kat⁸/ (Lóngyán) or /ka/-/ko/ (Foochow) necessarily reflects the postulated prefix *k-. “Slanting” and the others may simply exhibit a serendipitous first syllable /ka-/ unrelated to the present prefix. The question is whether the majority of the Mǐnnán forms are not also serendipitous. Some sort of

¹¹ As, for instance, in Peking *shikeláng* ‘dung beetle’, Mandarin *qiāngláng* 螳螂. *Keláng* and *qiāngláng* are evidently both dimidiated forms of the same original *khláng.

semantic unity would be the most persuasive argument against serendipity.

Sagart has identified “count-noun” as the feature of the **k-* prefix used with nouns, suggesting that the disappearance of such a prefix “may have been a factor in the rise of numeral classifiers in Chinese during the same period” (2000: 107). In passing, let me point out that two of the Amoy examples not mentioned by Sagart are most interesting in regard to the sense of discreteness that he attributes to **k-*: /ka¹ nŋ²/ “entire” and /ka¹ ki⁶/~ /ka¹ ti⁶/ “oneself.”

However, I find unsatisfying a few aspects of the count-noun proposal. First, Mǐnnán dialects generally have their own native-looking general numeral classifier equivalent in meaning to Mandarin *ge* 個~箇~个:

Amoy /e²/;
 Quánzhōu /ge²/;
 Teochew /kai²/;
 Lóngyán /ki²/.

Phonetically these forms are not perfectly comparable, but I believe their rough likeness may point to a common ancestor of considerable antiquity. One possible etymon is 其 {gi}, although functionally it would appear to be at some distance from the Mǐnnán forms.¹² Sagart himself (p.c. 2001) has suggested 個~箇~个 as the etymon, in the early Chinese *gē* 歌 rime-group, reconstructed **-ay* by Baxter, but the tone and initial-voicing do not match and will have to be explained. (Medieval rime-books give {keH₁} for this character, where **{ghe₁}* would be expected to match the Mǐn forms.) In any case, the relationship between the loss of **k-* and the evolution of classifiers in Mǐn would have to be clarified considerably beyond Sagart’s suggestion.

The proposed replacement of **k-* with numeral classifiers is an instance of a syntactic pattern emerging to replace a morphology-bearing phonological element. Since the whole theory of early morphology hinges on Chinese having changed typologically from a derivational language to an isolating one, Sagart’s count-noun proposal would constitute important evidence for the larger hypothesis. It does not appear that early classifiers (such as *ge* < {keH₁} 箇 or *jiè* < {keiH_{2b}} 介, both suggestive of **k-*) could have directly replaced a **k-* prefix.

¹² Besides its use as a possessive pronoun, *qí* 其 has another important Classical usage as a modal particle. Matthews and Xū (2002) have identified what appears to me to be a similar modal function of Teochew /kai²/, although they have tentatively treated it as a pronominal copula.

An intermediate stage of some sort must be assumed, and I see no obvious evidence of such a stage in Liú Shìrú’s 劉世儒 copious 1965 compilation. For example, in the earliest examples of numeral-plus-classifier phrases, those phrases appear after the noun, rather than before, e.g. 負服矢五十箇 (*Xúnzǐ* “Yìbīng 議兵” 15.272). We would have to stipulate that the **k-* prefix became lexicalized first and only later shifted position. Possibly the conservatism of the script would have obscured lexicalization at first. For another thing, when classifiers do eventually begin to appear preceding nouns, they are frequently separated from those nouns by tmetic modifiers, and we see this consistently beginning in early medieval times. We would have to say that the lexicalized prefix **k-* first appeared after the noun and numeral, and then jumped back to before the modifier-noun phrase. Competing usages (including oral-written divergence) might of course be responsible for this seeming complexity in the written record. Overall, in any case, I think that more historical detail is needed to validate this fascinating element of Sagart’s larger hypothesis.

Against the count-noun proposal, one might also object that count-nouns are extremely numerous in Mǐn dialects and only a very small number of them exhibit the /ka-/ prefix. An explanation may be that, among the nouns I have listed above, many of them are the names of decidedly humble objects, including both native plants and animals and undignified body parts. In this Mǐn is not unique. There are syllables similar to /ka-/ or /kha-/ in, for instance, Peking dialect words for certain other lowly body parts. As with *gèzao*, Peking gives a full tonal value, which may not be etymologically meaningful, to the *ge* syllable when it is the first in the word:¹³

gēlèmbār ‘kneecap’ (Peking dialect has a number of similar variants);
gēda ‘pimple, bump’;
gēbe ‘upper arm’.

Small numbers of like forms are found in a great many dialects. It may be that their lowly quality, even if not directly related to the **k-* prefix, has prevented their replacement with more phonologically standard words from the Common Chinese lexicon.

It may also be that the Amoy form represents the convergence or coevolution of more than one unrelated particle. It happens that several important Amoy and Taiwanese particles sound similar to /ka¹/. There is a coverb /ka⁷/ comparable to Mandarin *gēn* 跟 or *hé* 和

¹³ For sources of dialect data, see the references.

TABLE 5

Taiwanese:	gua ³	ka⁶	kin ¹ -tsiu ¹	tsia ⁷ lo ⁰ khi ⁰	a ⁰
Mandarin:	我	把	香蕉	吃下去	了
meaning:	“I”	prefix: direct obj.	“banana”	“to eat up”	particle: new state
	“I ate the bananas up.”				

TABLE 6

Taiwanese:	gua ³	ka⁶	tsia ⁷ lo ⁰ khi ⁰	a ⁰
Mandarin:	我	[no corresponding particle]	吃下去	了
meaning:	“I”	prefix: (verb is transitive)	“eat up”	particle: new state
	“I ate [it/them] up.”			

‘with’, also translatable as “and” between nouns. Below, Taiwanese is represented by data from Ilan.¹⁴

TABLE 3

Taiwanese:	gua ³	ka⁷	li ³	koŋ ³
Mandarin:	我	跟	你	講
meaning:	“I”	coverb: “with”	“you”	“say”
	“I’m telling you . . .”			

The glottal stop is ordinarily assimilated or lost in normal speech. This form /ka⁷/ is understood to correspond to the morpheme {kap_{1a}} 合 “together” in Common Chinese.

There also is a particle /ka⁵/ introducing complements of extent:

TABLE 4

Taiwanese:	kiā ¹	ka⁵	be ⁷	si ³
Mandarin:	怕	得	要	死
meaning:	“frightened”	suffix: extent	“want to”	“die”
	“scared to death”			

Douglas’s Amoy records, and dialects such as Lóngyán, render this particle /kau⁵/, the regular word “to arrive,” corresponding to Common Chinese {kouH₁} 邁. It appears to be parallel to Mandarin *de*, written 得 but evidently derived from *dào* 到, also “to arrive.”¹⁵

¹⁴ For sources of Ilan dialect, see the references.

¹⁵ Heine and Kuteva observe that Lahu’s verb [ga ɟ] “to arrive” is used in the same sense of “manage to do” (2002: 46). For details on the Lahu potential form, see Matisoff 1975:

There is a coverb /ka⁶/ introducing direct objects, as in Table 5. It is similar in usage to Mandarin *bǎ* 把, although some of its functions differ. Notably, as with the coverbs *yǐ* 以 and *yǔ* 與 in Classical Chinese and *bèi* 被 in Mandarin, the direct object can be dropped in some cases. In the Taiwanese example given in Table 6, the remaining /ka⁶/ functions as an adverb, but still serves to indicate that the main verb is transitive. This /ka⁶/ is traditionally written 共 /kaŋ⁶/, although the change of sound from /kaŋ⁶/ to /ka⁶/ is not a regular one and the association may be spurious.

The two coverbs /ka⁷/ and /ka⁶/ might conceivably be related to what Sagart calls the count-noun prefix; both do, certainly, precede nouns and pronouns, although it is not clear that only countable nouns are involved. The occasional transitivizing function of /ka⁶/ is hard to connect with intransitive verbs of repeatable action such as “to sneeze” and “to shiver.” A different possibility is simply that grammatical functions tend to coalesce onto syllables like [ka] in Mǐnnán, and that those functions share no core meaning historically. If that is the case, it may be that the noun-prefix /ka¹/, too, is no more than the fortuitous congeries of unrelated syllables.

2.4. Conclusion, *k-

On balance, it is evident that Amoy /ka¹/ is not unique within Mǐn; similar forms are attested in Teochew, Lóngyán, and Foochow. It is therefore no fluke in the Amoy data, and so its linkage with the Jīn dialect morphological prefix is stronger than might appear from Sagart’s presentation. However, the actual modern forms

233–34. Is it a coincidence that the Lahu form is phonetically similar to the Mǐnnán bound form [ka ɟ]?

identified as reflexes of **k-* vary a great deal more than Sagart lets on. (The *Lóngyán* form /kat-⁸/ is particularly striking.) Nevertheless, to date the **k-* prefix is the best supported single example of a reconstructed morphological feature posited on the basis of comparative evidence. It is also the first such feature whose traces are visible in some form other than tonally in modern dialects. By connecting the *Mǐn* reliquary forms to the living *Jīn* morphological process, Sagart has made what may well prove to be a major discovery.

3. THE **-r-* INFIX

Sagart's book, building on an earlier article, compares *diéyùn* 疊韻 (reduplicated-final) forms from *Mǐn* and *Jīn* dialects, in which the second syllable repeats the vocalism of the first but begins with *l-* (1993a: 11; 1993b: 263–80; 1999: 117–20). Sagart identifies them as dimidiated survivals of an early Chinese infixed **-r-*, which he identifies as connoting “distributed action or object, i.e., an action or object which is not homogeneous in time or in space” (1999: 117). Along with clear evidence from various *Jīn* dialects and Foochow, Sagart cites data from Pān Wèishuǐ's article on Kienow [Jiàn'ōu] 建甌 dialect, a variety of Northern *Mǐn* 閩, spoken in north-eastern Fukien (Pan 1994):

*ŋe*⁵ ‘crooked’ > *ŋe*⁵ *le*⁵ ‘very crooked’;
*k'i*¹ ‘crooked’ > *k'i*¹ *li*¹ ‘very crooked’.

The change of meaning is intensive. In most cases, however, the meaning of the Kienow *diéyùn* forms simply involves some type of disorder or mildly unfavorable quality. Here are other examples from the same source:

*pu*⁶ > *pu*⁶ *lu*⁶ ‘wrinkled’;
*ku*¹ > *ku*¹ *lu*¹ ‘to squat’;
*pa*⁵ > *pa*⁵ *la*⁵ ‘to crawl’;
*ts'u*⁷ > *ts'u*⁷ *lu*⁷ ‘to shrink’;
*tse*¹ > *tse*¹ *le*¹ ‘chapped’;
*niau*⁵ > *niau*⁵ *liau*⁵ ‘to become wound
around with’;
*tiŋ*⁶ > *tiŋ*⁶ *liŋ*⁶ ‘entangled’;
*paiŋ*³ > *paiŋ*³ *laiŋ*³ ‘to turn upside down’;
*kau*⁸ > *kau*⁸ *lau*⁸ ‘to mix together’;
*k'y*⁷ > *k'y*⁷ *ly*⁷ ‘wavy’;
*mɔ*¹ ‘ill?’ > *mɔ*¹ *lɔ*¹ ‘bumpy (of a road)’.

The forms with added *-l-* do sometimes intensify the original meaning, but the meaning itself usually involves some form of disorder or mild deprecation.

Sagart, citing unpublished data of Michel Désirat, has shown that some classifiers in Foochow undergo redupli-

cation with *l-* in the second syllable (1999: 119). I have collected similar examples in the village of Guānzhuāng Shàngzhuó 官莊上濯, from a variety of Hakka spoken in western Fukien. Shàngzhuó's formal affiliation as a variety of Hakka is illustrated (without discussion) in Branner (2000: 70–71). As in Foochow, ordinary classifiers are made to undergo reduplication, with *l-* replacing the initial of the second syllable. The new, bisyllabic classifier that is formed is always collective (refers to a group of things) and suggests disorder or dispersion.

*pəu*¹ ‘measure for bundles’
> *pəu*¹ *ləu*¹ ‘measure for disorderly bundles’;
*pv*³ ‘measure for fistfuls’
> *pv*³ *lv*³ ‘measure for mixed bunches of flowers’;
*pha*² ‘measure for rows’
> *pha*² *la*² ‘measure for rows of many things (chairs, people, etc.)’;
*phu*² ‘measure for puddles’
> *phu*² *lu*² ‘measure for a whole lot of water all over the floor’;
*fou*³ ‘measure for nestfuls’
> *fou*³ *lou*³ ‘measure for bustling nestfuls of young birds’;
*tu*¹ ‘measure for piles of things’
> *tu*¹ *lu*¹ ‘measure for piles of various things piled up together’;
*tshəŋ*² ‘measure for clumps of plants’
> *tshəŋ*² *ləŋ*² ‘measure for entire clumps of plants’ (emphasis on the whole thing);
*tcio*¹ ‘measure for piles of things’
> *tcio*¹ *lou*¹ or *tcio*¹ *liou*¹ ‘measure for disorderly piles of long things, such as bunches of noodles, cut-off braids’;
*tchiŋ*² ‘measure for flocks of birds’
> *tchiŋ*² *liŋ*² ‘measure for whole flocks of flying birds’;
*ke*⁷ ‘measure for bundles’
> *ke*⁷ *le*⁷ ‘measure for bundles of something long and soft, bound with a piece of its own material (such as rice-straw, taro-stalks, etc.)’;
*koŋ*¹ ‘measure for groups of people’
> *koŋ*¹ *loŋ*¹ ‘measure for large groups of people marching in a line’ (*dāzhèn* 大陣);
*khuəŋ*³ ‘measure for tied bundles’
> *khuəŋ*³ *ləŋ*³ ‘measure for loads of mixed things picked up in both arms’.

I have observed Shàngzhuó's particular pattern in other western Fukien sites such as Liánchéng 連城 and Níng-huà 寧化 counties (these are not strictly Hakka dialects, however; see Branner 2000: 73–84), and I believe it is widespread areally. That is an important point, because it means that the feature appears in dialects other than the highly conservative *Jīn* and *Mǐn* groups. A second

important fact about the Shàngzhuó process is that it is productive today, unlike what Sagart and Désirat describe for Foochow. Lǐ Rúlóng 李如龍, a Mǐn dialect specialist long resident in Foochow, has informed me (p.c. 1993) that this process is not now productive in Foochow.

Not only Hakka, but also Peking dialect has a certain number of odd colloquial words in *dīéyùn* form, with the second syllable in neutral tone and with initial *l*-. Again, there is a distinct connotation of awkwardness or inappropriateness throughout these examples:

- bāla* 'ugly scar' (cf. *bā* 'scar');
- pāla* 'measure for disorderly clumps of carabao's excrement';
- pála* 'to scrape together (food) on the plate' (cf. *pá* 'to rake up, scrape into the mouth');
- tūlu* 'to come unwound, unravelled';
- gūlu* 'to mutter';
- hūlu* 'to muss (an animal's fur)'.

Evidently this is a widespread feature in Chinese, and doubtless deeper fieldwork will uncover more examples.

Peking dialect has still other productive processes that appear to be related to something like an *-l*- infix. Peking can take bisyllabic adjectives and make them either intensive or more pointedly disagreeable by reduplicating the first syllable and inserting plain *le*. The pattern can be summarized as AB > A *le* AB:

- xiǎoqì* 'stingy'
- > *xiǎolexiǎoqì* 'very stingy, miserly; disagreeably so';
- hútú* 'unable to think clearly'
- > *húlehútú* 'unable to think clearly; absent-minded; confused or easily confused';
- mèiqì* 'effeminate'
- > *mèilemèiqì* 'very effeminate';
- nǚqì* 'effeminate'
- > *nǚlenǚqì* 'very effeminate';
- shǎqì* 'stupid'
- > *shǎleshǎqì* 'very stupid, having a very stupid air';
- mǎhu* 'slapdash, thoughtless'
- > *mǎlemǎhu* 'especially slapdash, very careless';
- wēntūn* 'not diligent; underhanded'
- > *wēnlewēntūn* 'very slow-moving at one's work, not straight-forward'.

Although it is hard to pin down the meaning of this *le* syllable, it is plainly associated with the change in meaning; reduplication alone does not account for pejorative intensification. This *le* is also obviously not related in any simple way to the aspectual verb-suffix *le*.

The process is productive in Peking dialect today. A second Peking example involves certain monosyllabic

adjectives that are made intensive or more pointedly disagreeable by adding nonsensical bisyllabic suffixes with *le* preceding them. The suffixes vary (most often *-bāji*), but they are always in tone /1/, and the pattern can be summarized as A > A *le*-[suffix]:

- tián* 'sweet'
- > *tiánlebāji* 'cloyingly sweet, unpleasantly sweet';
- ruǎn* 'soft'
- > *ruǎnlebāji* 'cowardly';
- lǎn* 'lazy'
- > *lǎnlebāji* 'very lazy';
- yě* 'ill-mannered'
- > *yělebāji* 'very ill-mannered';
- niān, niār* 'tired, pooped'
- > *niānlebāji* 'exhausted and slow-moving; reticent, secretive';
- huá* 'slippery'
- > *huálebāji* 'reticent';
- tǔ* 'unsophisticated'
- > *tǔlebāji* 'very unsophisticated' (*hěn tǔ* 很土);
- hēi* 'black'
- > *hēilebāji* 'dirty';
- yóu* 'oily'
- > *yóulebāji* 'disgustingly greasy';
- hóng* 'red'
- > *hónglebāji* 'loud red' (derisive);
- zǐ* 'purple'
- > *zǐlebāji* 'loud purple' (derisive);
- lǜ* 'green'
- > *lǜlebāji* 'loud green' (derisive);
- huáng* 'yellow'
- > *huánglebāji* 'loud yellow' (derisive; rare: *huángbedēngdēng* preferred¹⁶);
- lèng* 'careless'
- > *lènglebāji, lèngleguāji* 'very careless, lacking foresight';
- miàn* 'mealy'
- > *miànlegūnāng* 'overly soft, mealy (said of food)';
- xiè* 'too thin (said of liquid foods)'
- > *xièleguāngdāng* 'much too thin, not thickened nearly enough (said of liquid foods)'.

All three groups of Peking examples have in common three elements: first, either outright reduplication or the addition of a nonsense suffix; second, introduction of an initial *l*- on the second syllable, which is in neutral tone; third, the intensification of meaning and addition of a sense of disorder or derision.

¹⁶ Peking dialect has a certain number of similar constructions using *be* instead of *le*.

I assume Sagart would disagree with me on the inclusion of examples of the *A-le-AB* and *A-le-[suffix]* types because he visualizes a morphological infix *-r-* equivalent to early Chinese *-r-* and a process of reduplication perhaps related to Austronesian morphology. Apart from the related problem of whether the widespread medial *-r-* in early Chinese phonology was a morphological feature at all, I am persuaded to allow *le*-insertion examples because I see all the data above as a kind of sound symbolism. I am not convinced that classical derivational morphology is involved here.

I am also not convinced that the intensive function that Sagart has assigned to his infix *-r-* is descriptively adequate. The data I have supplied really seem to encompass the senses “disagreeable” or “disorderly,” which Sagart has not identified. But I think there is a likeness between the durative ~ iterative sense found in much of Sagart’s data and the sense of “disorder” in my examples (e.g., “row” > “disorderly row”), and there is certainly a simple connection between “disorder” and pejorative sense.

The semantic shifts exhibited in the present data do not seem to me precise enough to be called grammatical. The overall process is widespread geographically, although within each dialect where it is found it seems to be limited to a very small part of the lexicon, even when it is productive. It encompasses verbs, nouns, and adjectives, which shows that it is not limited to ordinary Chinese grammatical categories, and it involves a change in meaning that varies a great deal between specific examples. None of these facts definitively rules out considering the process morphological in origin, but I assert that it is better to call it a form of sound-symbolism, because of the variety of its manifestations and the hazy quality of the semantic shifts involved.

In sum, although I am not convinced this feature is actually a survival of ancient morphology—it may merely be a kind of sound-symbolism that happens to be common areally—nevertheless it would seem to be evidence of a process found in enough diverse varieties to be considered a feature of Common Chinese.

4. CONCLUDING REMARKS AND QUESTIONS

Both initial *k-* and sound-symbolic *-l-* appear to be well and broadly attested. No doubt future research on dialects and premodern sources, some now unknown to us and others known but unrecognized, will turn up

¹⁷ See general studies in Koerner and Asher 1995 by Kiparsky, Staal, Householder, and Taylor.

more features of this kind, and the larger question of describing the detail of Common Chinese will progress in unexpected ways.

But there also remains the problem of the identity and origin of Common Chinese. I have defined it as a notional metasystem of the features of Chinese. Further, I have proposed that features should not be reconstructed into the early language unless they are either diversely attested in Common Chinese or at least attested in both modern and ancient evidence. But must all Common Chinese features necessarily be reconstructed into the early language? Is it not conceivable that features such as the **k-* prefix were already reliquary by the late Warring States and Hàn, or existed only in varieties of language out of the mainstream?

If Chinese in an early stage really exhibited morphology, then why do early Chinese sources never describe it, as for instance early Indian sources do Sanskrit morphology, early Greek sources do Greek morphology, and early Roman sources do Latin morphology?¹⁷ It is not as if late Warring States sophists failed to pay attention to their language; the *Mòzǐ*, *Xúnzǐ*, and *Gōngyáng Zhuàn* all teem with comments on the meaning and usage of grammar words, sometimes in absolute terms and sometimes comparatively (see the fine assembly of primary materials in Zhèng and Mài 1964: 276–319). Indian, Greek, and Roman philologists, however, were deeply attracted not just to detailing usage but to identifying the patterns in morphological changes, which they described analogically in paradigms, a tool that has remained basic to understanding grammar in these inflected languages. Gragg (1995) has identified paradigms in the ancient comparison of Sumerian and Akkadian words, in Babylonian documents as old as the early second millennium B.C.E.

Where are the paradigms for Chinese? How is it possible that the Hàn-time authors of the profoundly systematizing *Huáinánzǐ* 淮南子, *Chūnqiū fánlù* 春秋繁露, and *Báihǔ tōng* 白虎通—so keen in their appetite for asserting patterns on all forms of knowledge—overlooked analogical order in language?¹⁸ Or was there no such order in the language they knew? Syllabic writing, in use in the Eastern Mediterranean since the third millennium

¹⁸ The ancient tradition of *wǔyīn* 五音 “five sounds” (*gōng* 宮, *shāng* 商, *jué* 角, *zhǐ* 徵, *yǔ* 羽) seems to be musical in origin. It is attested in this sense by the time of the *Mencius*. Although in later periods it had a phonological application, it is not clear how far back that may go. The *Qièyàn kǎo* 切韻考 of Chén Lǐ 陳澧 (1810–1882) lists some of the early phonological references to these terms (1966[1868]: 6.6b-8b) and none go back even to the Hàn.

B.C.E., forces the writer to be aware of phonetic changes. We recognize that the Chinese writing system may have obscured all manner of morphological variation from posterity, but could it also have suppressed that variation? Could it have concealed morphological changes from the early Chinese themselves? Or did early Chinese of the late Warring States and Hàn in fact no longer have productive morphology?

To my mind, this is a case of the dog not barking. I hold that Chinese literary people of those days must not have mentioned morphology because there was none to mention in their mainstream spoken languages.

The traditions that I described at the beginning of this paper—one purely lexicographic, the other reconstructionist and paradigmatic—are fundamentally different outlooks. It is often possible to make good sense of the same data using either one. Let me take an example from the work of a contemporary scholar equally at home in both traditions. Edwin Pulleyblank, in his superb *Outline of Classical Chinese Grammar*, follows a syntactic approach to grammar, treating the many Classical particles in a way quite compatible with the lexicographic Chinese tradition. Describing certain pronouns, he writes,

Shú 孰 {dzyuk}¹⁹ is one of a group of words in {-k} including *gè* 各 {kak} ‘each,’ *huò* 或 {ghwek} ‘some,’ and *mò* 莫 {mak} ‘none,’ which are confined to preverbal position referring to the subject, and which usually select the subject from a larger group. (1995: 92)

He continues, describing the usage of *shú* and giving examples from early texts, and there are similar passages devoted to *gè*, *huò*, and *mò* (1995: 92, cf. 130, 134–36). It is characteristic of the lexicographic model to emphasize the grammar words individually and merely mention their shared features of usage and phonology in passing, if at all. That is how Chinese scholiasts have worked, up until the Sòng dynasty, when Jiǎ Chāngcháo 賈昌朝 (998–1065) and Huáng Zhèn 黃震 (1213–1280) began attempting to systematize the received lexicographical tradition of what we now consider derivation by tone change (Branner 1998).

But the paradigm-building frame of mind places analogy first and individual examples second, and so in Pulleyblank’s recent article on morphology, he treats the

¹⁹ For the sake of consistency, I have replaced Pulleyblank’s “EMC” reconstructions with my own “anti-reconstructional” transcription. EMC stands for Early Middle Chinese, Pulleyblank’s name for a language reconstructed based closely on *Qièyùn* categories.

{-k} ending as “a distributive suffix” and simply lists the four particles as a class, adding the rare particle *shí* 寔 {dzyek} as a fifth member (2000: 41–42). Now, it may well be that *shú*, *gè*, *huò*, *mò*, and *shí* all have final {k} because final {k} is a distributive suffix. There are, to be sure, a hundred or more common Classical words ending in {k} and they do not all exhibit distributive function. But, lacking the evidence for a large-scale paradigm, any modern linguist will seek to construct a small-scale model exactly as Pulleyblank has, by generalizing from a small set of similar examples as a first start and hoping it will lead somewhere. Linguists of ancient India and the Mediterranean also attempted to make large-scale generalizations. Varro even occasionally reconstructed proto-forms to account for anomalies in his paradigms.

But we find such generalization, large or small, nowhere in the received corpus of ancient Chinese scholia. I conclude that whatever morphology we are reconstructing for early Chinese had ceased to function in the mainstream of the language by the time of the texts representing that language.

In other words, I am proposing that this is a matter of diglossia—of high and low registers coexisting in spoken language. China, with its millennia-long written tradition, must have known a close relationship between the high spoken register and the written language for much of that time. It would be alone among known literate cultures there had been no such relationship.

The issue of diglossia is important and, I think, has been too little addressed in the entire study of early Chinese. Ting Pang-Hsin 丁邦新, commenting on Sagart’s book, has asked how early Chinese could have had polysyllabic forms, when the *Shijing* and *Shàngshū* use such consistently regular *sìyán* line-structure (2002a, 2002b).²⁰ Although neither Ting nor Sagart say as much, I think the

²⁰ Neither Ting nor Sagart (2002) mention ligatures (*héwén* 合文) in the Zhōu bronze inscriptions, in which a single compound graph stands for two distinct monosyllabic morphemes ordinarily written with two distinct graphs. Some of the most widely seen of these are numerals *niàn* 廿, *sā* 卅, etc., which are fusions and may well have been pronounced as one syllable from an early date, but there are a number of others, by no means all of which are numeral fusions. (It is interesting that the Qín tetrasyllabic inscriptions are transcribed in the extant *Shiji* using 二十 for 廿 and 三十 for 卅, which destroys the prosodic balance of the line; *Shiji* 1959: 6.243, 245, 249, 250, 252, 261. Were they indeed fusions in the original literary language, or were there actually more than four syllables in a four-stress tetrasyllabic line?) However, this point is minor in comparison with diglossia.

real answer to the problem of polysyllabicity and the characters is that the “high” diglossic style has long involved monosyllabic character-readings, while much more diverse forms have existed in regional speech. It is hard to read Yáng Xióng’s 揚雄 *Fangyan* 方言, for instance, without being struck by the sundry disyllabic forms that correspond to monosyllables in familiar written form. Virtually all of the evidence in the present paper is of the “low” diglossic variety, and I believe that the

nature of the words involved points to low varieties in the early period, as well.

In sum, Common Chinese morphology, although we now begin to see evidence that it is solidly attested, must reflect realities of some diglossically low form of Chinese either older than or separate from the late Warring States and Hàn written corpora. Its application in the reconstruction of the high register of early Chinese may, after all, be out of place.

REFERENCES

1. SYSTEMS OF ROMANIZATION AND TRANSCRIPTION

My romanizations in this paper are varied. Medieval forms are always placed in curly brackets {}. China’s medieval phonological tradition is the earliest whole sound system we have for any type of Chinese; reconstructed early Chinese is, conceptually, derived in large part from the medieval system, with the addition of data from rhyming, character structure, and other sources. I illustrate phonological points in the main using medieval phonology, clothed in the direct transcription system presented in Branner 1999b. A few starred forms indicate Baxter’s Old Chinese reconstruction, with **s* substituted for his **h*.

I use Postal forms for proper nouns that I judge reasonably well known in the field (Amoy, Foochow, Kienow, Peking) and Pinyin for all other Mandarin words. Dialect is generally transcribed in the International Phonetic Alphabet.

Phonemic tone categories in dialect data are written in superscript after the syllable (e.g., tsɑ⁴); the eight common Chinese tone categories are numbered here as follows:

[upper register, or “Yīn 陰”]	[lower register, or “Yáng 陽”]
yīnpíng 陰平 {1}	yángpíng 陽平 {2}
yīnshàng 陰上 {3}	yángshàng 陽上 {4}
yīnqù 陰去 {5}	yángqù 陽去 {6}
yīnrù 陰入 {7}	yángrù 陽入 {8}

2. SOURCES OF DIALECT DATA

Amoy [Xiàmén] 廈門. Important city in southern Fukien. My primary source for Amoy is Douglas 1899. I have adapted Douglas’s romanization system to IPA, using mainly the phonetic values described in Tung 1960: 737–91. Two exceptions are Douglas’s “eng” and “ek,” which I have retained as / eŋ / and / ek /; Tung writes / iŋ / and / ik /.

Foochow [Fúzhōu] 福州. City. The data here are taken from Maclay and Baldwin (1870) and Lí Rúlóng et al. 1994.

Ilan [Yílán] 宜蘭. County in northeastern Taiwan. Informants come from villages in the border region of Chiao-hsi

[Jiāoxī] 礁溪 and Chuang-wei [Zhuàngwéi] 壯圍 townships. Villages represented:

Chiao-hsi Ta-yi [Dàyì] 大義. Ms. 林阿嫻 (b. 1933).

Chiao-hsi Yü-t’ien [Yùtián] 玉田. Mr. 張阿傳 (b. 1898?), Mr. 張阿霖 (b. 1932), and Ms. 張珣 (b. 1962);

Chuang-wei Ku-t’ing [Gùtíng] 古亭. Mr. 陳阿祿 (b. 1922) and Ms. 陳阿琴 (b. 1935);

Chuang-wei Mei-ch’eng [Měichéng] 美城. Mr. 游木春 (b. 1933), Mr. 游炳登 (b. 1935), Ms. 游淑真 (b. 1960), and Mr. 游志斌 (b. 1962);

Data collected mainly between 1986 and 1995, in Ilan, New York, and Seattle. Some data from my Ilan notes appears in Branner 1999a and 2000.

Kienow [Jiàn’ōu] 建甌, a city in northeastern Fukien. Source: Pan 1994.

Lóngyán 龍巖. City in western Fukien, whose dialect belongs to the northern variety of Mínnan. Principal site: Xībēi Tiǎowéi 西陂條圍, a village near the city limits, whose speech is essentially that of the city proper. Principal informant: Mr. Chén Yízhì 陳一致, 78 (?) *sui* in 1992, village intellectual. Extensive unpublished survey by myself with Yeo Shujen, 1992–95. Some of the Lóngyán material has appeared in Branner 1999a and 2000.

Peking, a.k.a. Běijīng 北京. The dialects spoken in this city provide the phonological and syntactic basis for the standard language called Mandarin in English, but differ from it considerably in some areas of lexicon. My principal informant for Peking dialect forms is Mrs. HUANG Yi [Huáng Yì] 黃麗, born 1929, a native of the Xízhimén 西直門 district, in fieldwork between 1994 and 1996 in Seattle. Other data from this survey appear in Branner 1999c.

Quánzhōu 泉州. An important city northeast of Amoy. Data used here are from Lín Liántōng 1993; the material labelled “Cn” (Chinchiang [Jīnjiāng] 晉江) in Douglas 1899 is occasionally cited, though of uncertain reliability.

Shàngzhuó. Shàngháng Guǎnzhūāng Shàngzhuó 上杭官莊上濯, western Fukien. Informant: Mr. Lín Huànzhēn 林煥珍, 50 *sui* in 1992, museum official. Long survey, 1992–95. Other

- data from this survey appear as “Guanjuang” in Branner 1999a: 47–51.
- Teochew [Cháo zhōu] 潮州, city in eastern Kwangtung. Source: Choy Chun-ming 1991.
- Wúzhái. Lóngyán Wàn’ān Wúzhái 龍岩萬安梧宅, village in western Fukien. Informants: Mr. Téng Yǒngyí 滕永貽, b. 1928, retired middle-school teacher (principal informant); Ms. Téng Xǐqīng 滕喜青, 27 suì in 1993, teacher; Mr. Téng Zhìjiān 滕志堅, 49 suì in 1993, local official. Long survey with Yeo Shujen, 1993–1994. Much Wúzhái data appears in Branner 2000.
- Zhāngzhōu 漳州. An important city west of Amoy. Data used here are from Douglas 1899, adapted as described in the entry for Amoy, above.
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