Grammatical change:
theory and description

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10 The diachronic evolution of the directional particle lái in Mandarin

JAMES MCELVENNY

1 Introduction

This paper investigates the diachronic evolution of the Modern Mandarin particle lái ‘hither’ and its associated grammatical constructions. Lái belongs to the closed class of directional particles, whose basic function is to indicate paths over which the events described by the verbs they follow occur. Their presence in the language gives Modern Mandarin a ‘satellite-framed’ structure for the expression of manner and path in motion events, according to Talmyle’s (1985; 2003:21–146) system of classification. An example of lái ‘hither’ describing a path is provided in (1) below.

(1) The Modern Mandarin directional particle lái

... 只見 一位 體格 魁偉，滿臉 胡子 的
zhī-jìàn yì wèi tǐgé kuí wěi mǎn-liǎn húzi de
only-see one CL body large-boned full-face beard ASSOC

1 My thanks go to Jane Simpson and Derek Herforth, who have provided many insightful comments and criticisms on successive drafts of this paper. I also thank the anonymous reviewer who provided several suggestions that helped to strengthen this paper. Any errors of fact or argumentation are of course my own.
2 What I describe here as directional particles are normally identified as qū xiàng bù yǐ ‘directional complements’ in most research into Chinese grammar. I have avoided this term, however, since the forms that appear in Modern Mandarin do not have the properties of complements as that term is generally understood in modern Anglophone syntactic theory. Although there are several competing definitions of complement, they all tend to describe forms that fill argument slots of verbs (see, for example, Crystal 1997:75). The directional forms in Modern Mandarin and other modern Chinese dialects do not fill argument slots and so fall outside these definitions.
3 In Modern Mandarin lái and the other directional particles can also have a range of metaphorical meanings. These extended metaphorical uses of the directional particles fall outside the scope of this paper. See Chao (1968:458–467), Li and Thompson (1981:58–67) and Huang and Chang (1996) for further discussion on the metaphorical uses of the directional particles.
4 Abbreviations used in glosses: 1, 2, 3 = first, second, third person; ASP = Old Chinese aspect marker; CL = classifier; NOM = nominalisation marker; OBJ = Object; PART = Old Chinese sentence-final particle; PERF = perfective aspect marker; PL = plural; POS = possessive marker; PREP = the multi-purpose Old Chinese preposition yú 於; Q,PART = question particle; S = singular.
The Modern Mandarin directional particles are all historically derived from directional verbs through grammaticalisation. Grammaticalisation is the process through which forms come to take on more grammatical meanings in certain contexts. The pronunciation of a form undergoing grammaticalisation will also often become reduced and its syntactic class may change. In a prototypical instance of grammaticalisation, a content-bearing form belonging to a major word class, such as the noun or verb class, loses its original meaning in a particular construction and takes on a more grammatical meaning, such as indicating case, tense or a similar grammatical category. Its phonological form is reduced and it may become a clitic or an affix. The phenomenon of grammaticalisation is approached in this paper from the theoretical angle of Hopper and Traugott (2003).

The diachronic development of the directional particle lǎi provides a classic example of grammaticalisation. Its source is the directional verb lái 来 ‘come’, a content-bearing lexical item. In the course of its development, the particle has undergone phonological reduction, semantic bleaching and a change in word class from the major class of verbs to the minor class of directional particles.

The development of lǎi also exemplifies some of the common consequences of grammaticalisation. The directional verb lái from which the particle developed continues to exist alongside the particle in Modern Mandarin. This is an instance of ‘divergence’ (Hopper and Traugott 2003:118–122), where a common ancestral form can evolve over time into separate forms that serve distinct functions. In Modern Mandarin the particle lǎi can appear in different syntactic constructions that are functionally indistinct. This is an example of ‘layering’ (Hopper and Traugott 2003:124–126), where alternate forms from different sources come to serve the same function in a language.

In this paper I examine the precise path followed by lǎi as it evolved from a verb in Old Chinese up to its present state as a directional particle in Modern Mandarin. Although I restrict my discussion to lǎi, many of the observations made here also apply to the other directional particles in Modern Mandarin.5

2 Methods

The research presented in this paper is based on attested data drawn from a diachronic corpus of Chinese texts from Old Chinese times to the present. The periodisation that I adopt is that used by Sun (1996:3), who divides the history of Chinese varieties into four major periods, the Old Chinese period (500 BC–AD 200), the Middle Chinese period (AD 200–1000), the Early Mandarin period (AD 1000–1900), and the Modern Mandarin period (AD 1900–present).

I have attempted to select texts from each of these periods that are considered representative of the language of their time. Most official documents and high-class literature from the end of the Old Chinese period up to the beginning of the Modern

5 The other directional particles in Modern Mandarin are introduced briefly in §3.
Mandarin period were written in a style that emulated to varying degrees the language used in the classical literature of pre-Qin times. This is the Classical Chinese literary language (called wén yán 文言 in Chinese). In selecting texts from the Middle Chinese period on, I have avoided material of this type. Instead, I have chosen only texts written in a style more closely connected to the spoken language of their respective periods (báihuà 白話). The texts contained in my corpus are shown in Table 1 below. Each of the texts mentioned in the table was examined during the course of this research, but not every text provided examples that are cited in this paper. Even if no examples are cited from a text, the text is still relevant since it provided negative evidence—if a particular form is consistently not attested then it was probably not a feature of the language of the time.

**Table 1: Texts in diachronic corpus**

<table>
<thead>
<tr>
<th>Text</th>
<th>Date</th>
<th>Source</th>
<th>Approx. character count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zuòzhuan 左傳</td>
<td>ca 475 BC</td>
<td>Yang (1981)</td>
<td>200,000 characters</td>
</tr>
<tr>
<td>Lún yú 论語</td>
<td>ca 200 BC (earliest known written version)</td>
<td>Yang (1980)</td>
<td>16,000 characters</td>
</tr>
<tr>
<td>Shíjí 史記</td>
<td>ca 91 BC</td>
<td>Takikawa ([1934],1982)</td>
<td>500,000 characters</td>
</tr>
<tr>
<td>Shishuōxínyú 世說新語</td>
<td>ca AD 420–444</td>
<td>Liu (1996)</td>
<td>54,600 characters</td>
</tr>
<tr>
<td>Bái yújīng 百喻經</td>
<td>ca AD 483–494</td>
<td>Zhou (1993)</td>
<td>17,500 characters</td>
</tr>
<tr>
<td>Dùnhuángbiànwén 敦煌變文</td>
<td>ca AD 907–1127</td>
<td>Wu (1996)</td>
<td>230,000 characters</td>
</tr>
<tr>
<td>Zǔtángjì 祖堂集</td>
<td>ca AD 952</td>
<td>Zhang (2001)</td>
<td>120,000 characters</td>
</tr>
<tr>
<td>Zhūzi yǔlǐ 朱子語類</td>
<td>AD 1270</td>
<td>Wu (2003)</td>
<td>38,600 characters</td>
</tr>
<tr>
<td>Rúlín wài shì 儒林外史</td>
<td>early 18th c. AD</td>
<td>Wu (1958)</td>
<td>276,000 characters</td>
</tr>
</tbody>
</table>
It is often observed that even though throughout the greater part of Chinese history there has been a widely recognised standard literary language, in different periods there have often been several forms of 白话, each based on a different regional dialect. The diversity of the Chinese dialects extends far back in time. In the Old Chinese period there were probably already several dialects, some of which may not have been mutually intelligible (Yuan 1960:16–19; Norman 1988:183). This presents a problem for the historical linguist, since there are rarely enough texts from earlier varieties of the language extant to choose a particular dialect to study. It is also not always clear what ancient dialect a particular historical text represents.

I have been very mindful of the fact that the varieties represented in the texts in my corpus may not belong to a single line of descent. Most of the texts come from the northern part of the country, so they maintain a degree of geographical continuity, although this is not an entirely dependable measure of the relatedness of the texts, and I have not relied on this factor alone in selecting texts. For example, I have included the text 祖堂集, which is known to have been written in the south of China and which clearly contains features of many different dialects (Mei 1997). My approach to resolving issues of relatedness has been to compare the features that I find across texts from around the same period. If in the course of the investigation I found a feature in one text that is not attested in the others, I concluded that the feature must be a dialect variant. If, on the other hand, a feature was found across texts, then I took it to be representative of the northern variety of the time.

My approach in analysing the data presented by the corpus is to examine each synchronic stage in the language and posit an explicit description of it. From these descriptions it is possible to see the differences between each synchronic stage and thus the changes that have occurred between these stages. This approach rests on Saussure’s (1983:87–89) metaphor of language as a game of chess. Each synchronic stage is represented by a certain configuration of pieces on the board. Diachronic change is what happens when a piece is moved, creating a new synchronic configuration.

This metaphor has many shortcomings. Unlike configurations on a chessboard, there are no clear states in the history of language that correspond to moves in a game of chess. Every language is in a constant state of flux with a large amount of variation among speakers and even within the speech of a single speaker. This metaphor does not capture the true nature of diachronic change, but it does provide a useful model for conceptualising that change for the purposes of analysis.

3 The directional constructions in Modern Mandarin

In Modern Mandarin the directional particle 来 ‘hither’ co-exists with the directional verb 来 ‘come’, from which it is historically derived. The directional verb 来 in Modern Mandarin is shown in (2) below.

(2) The directional verb 来

藏花 說: ‘才 會 想到 來 這裡 淋淋雨。’
zhàng huā shuō cái huì xiǎng-dào lái zhèlǐ lín-lín-yǔ
Zanghua say and.only.then can think-reach come here relax
‘Zanghua said: “And so you finally thought to come here to relax.”’

(Lancaster Corpus)
The relationship between the verb and the particle is fairly transparent in Modern Mandarin. They have similar forms and have related meanings. There are clear differences between the modern verb and the particle, however. The most visible grammatical development of the directional particle is that it has lost the ability to have its own argument structure, while the directional verb lái still retains this ability (Lamarre 2005:10–11). In (2) above the verb lái introduces the location argument zhělǐ 這裡 ‘here’ to the clause. A directional particle could never introduce an argument.

The verb lái and the particle lái also have different forms, although the difference in the forms is obscured by the writing system. Both the verb and the particle are written with the same character but they are pronounced differently. The particle lái is always pronounced in the neutral tone when it appears immediately after the main verb in the clause (i.e., in the ‘inseparable configuration’, discussed below; Chao 1968:436–437; Lamarre 2005:7). Directional verbs, on the other hand, always have their full tonal value.

The continued co-existence of these two forms that share common ancestry could be considered an instance of divergence (Hopper and Traugott 2003:118–122). In cases of divergence a lexical form may develop new meanings and uses in certain grammatical constructions while continuing to exist with its original meaning and use in other constructions. Over time the forms in the two contexts may develop in different ways. To illustrate this phenomenon, Hopper and Traugott (2003:119) give the example of the relationship between the Modern English indefinite article *a(n)* and the Modern English numeral *one*. They both derive from the Old English word *an*, which meant ‘one, a certain’. Over time the indefinite article use of *an* developed. After the numeral and indefinite article uses of *an* became established, the forms began to diverge. *An* as an indefinite article in prenominal position became reduced, becoming simply *a(n)* (pronounced /ɔ(n)/ ), while *an* as a numeral and as a prenominal form became *one* (pronounced /wʌn/). In the same way, the directional verb lái and the directional particle lái have come from a common source and developed differently in terms of their meanings, grammatical behaviour and forms.

The particle lái can appear in two different syntactic configurations in Modern Mandarin, the separable configuration and the inseparable configuration. In the inseparable configuration lái appears immediately following the verb, and in the separable configuration it is separated from the verb by the verb’s aspect markers and object. An example of lái in the separable configuration is shown in (3a) below, and an example of it in the inseparable configuration in (3b).

(3) a. lái in separable configuration

... 果真 帶 了 些 文 件 來。
   guózhēn dài le xiē wénjiàn lái
   'it.turns.out carry PERF some document hither
   ‘... and in the end he brought some documents over.’
   (Lancaster Corpus)

b. lái in inseparable configuration

一個 又 一個 農村 婦女，從 家 裏
   yīgè yòu yīgè nóngcūn fùnǚ cóng jiālǐ
   one-CL again one-CL village woman from home-inside
As mentioned above, the directional particle in the inseparable configuration is pronounced in the neutral tone. The particle in the separable configuration, on the other hand, is pronounced with its full tonal value. The particle in the inseparable configuration has undergone phonological reduction, unlike the particle in the separable configuration. Since the particle in the inseparable configuration is bound to its host verb and has an attenuated pronunciation, it seems more clitic-like than the particle in the separable configuration. It could be considered more 'morphologised', to use Hopper and Traugott's (2003:140–142) term. That is, the particle in the inseparable configuration has moved further down the path of reduction in form than that in the separable configuration.

Most linguists who have studied the directional constructions in Modern Mandarin believe that there is no semantic or pragmatic difference between the inseparable and separable configurations (Li and Thompson 1981:64; Shi 2002:161, although Liu 1998:40–45 provides a dissenting view). Since there is no discernable difference in meaning between the two configurations, they are probably best considered an example of 'layering' (Hopper and Traugott 2003:124–126). Under layering, alternate forms from different sources come to serve the same function in a language. For example, in English past tense is indicated on some verbs with the suffix -ed, as in walk/walked, and on other verbs it is indicated with vowel ablaut in the stem, as in drive/drove. These are two formally distinct ways to express the same notion and they have entered the language through different paths. The suffix -ed is probably derived from an auxiliary verb cognate with modern English do, while the vowel ablaut seems to have been inherited from a similar alternation in English’s Germanic ancestors (Hopper 1991:23). In the same way, the separable and inseparable configurations have come from two distinct sources in the history of the language. In this case, however, the sources of the constructions served different functions in earlier varieties of the language and over time have become more similar so that in Modern Mandarin they present two alternate ways to express the same meaning. The sources of the two configurations are discussed in §4 below.

Although I discuss only the particle lài in this paper, it is worth briefly introducing the full range of directional particles that exist in Modern Mandarin so that lài can be appreciated in its wider grammatical context. Most linguists recognise ten basic directional particles and a further fourteen combined directional particles (see, for example, Chao 1968:461–464 and Li and Thompson 1981:61–65). The basic directional particles can be divided into two classes, which can be distinguished both on semantic and syntactic grounds. The first class of particles includes lài ‘hither’ and its antonym qù ‘thither’. They both describe a path relative to a deictic centre anchored on the location of the speaker. These two particles can appear in either the separable or the inseparable syntactic configurations. The second class of directional particle consists of shàng ‘up’, xià ‘down’, jìn ‘in’, chū ‘out’, qi ‘upwards’, huí ‘back’, guò ‘over’, kāi ‘away’. These particles describe a path oriented around a landmark in the discourse rather
than the location of the speaker. These particles can only appear in the inseparable configuration. An example of the class two directional particle chū is shown in (4) below.

(4) The class two directional particle chū

爸爸 伸出 握拳 的 左手 ...
bàba shēn-chù wò-quán de zīu-shǒu
dad extend-out clenched-fist NOM left-hand
‘Dad stretched out his clenched left hand ...’
(Lancaster Corpus)

The combined particles consist of a class one particle followed by a class-two particle. The combined particles carry the meaning of both the class-one and the class-two particles, and so they express two paths, one oriented towards the speaker and the other on the landmark in the discourse. An example of a combined particle is shown in (5) below.

(5) Modern Mandarin combined particle

他們 從 孤獨 的 屋子 裡 走出來 ...
tā-men cóng gūdí de wū-zi lǐ zǒu-chu-lái
3-PL from lonely NOM room inside walk-out-hither
‘They walk out from inside the lonely room ...’
(Lancaster Corpus)

There is not enough space to discuss in detail the class two particles and combined particles. For more information on these directional particles, see Chao (1968:458–480), Li and Thompson (1981:58–65), Lamarre (2005) and McElvenny (2006).

4 The source of the directional constructions in Old Chinese

In Old Chinese (500 BC–200 AD) the directional verb lái 來 ‘come’ appears in two syntactic configurations, which are similar to the separable and inseparable configurations of the directional particle lài in Modern Mandarin. In the first Old Chinese configuration a motion or action verb is followed by a theme object noun phrase, which is then followed by a directional verb, as in (6a). In the second configuration a motion verb or physical action verb is followed by the directional verb lái ‘come’, which is then followed by an object noun phrase that refers to a theme. This is shown in (6b).6

(6) a. Forms involving lái in Old Chinese7

... 急 持 魏 齊 头 來!
ji chí wèi qí tóu lái
*C-(r)ik
urgent hold up Wei Qi head come
‘... bring back Wei Qi’s head!’
(Shiji 史記, 79.27–28, ca. 91 BC)

6 Only the Modern Mandarin pronunciations of forms in earlier varieties of Chinese are usually provided in this paper. Reconstructed pronunciations are only given when the original pronunciation is significant to the arguments put forward.

7 The forms *C-(r)ik and *C-(r)iks in between the pinyin transcription and the English gloss line in (6) and (9) represent the reconstructed Old Chinese pronunciation, which will be discussed below.
b. ...将 招 來 神 僖 之 属。

jiāng  zhāo  lái  shén  xiān  zhī  shū

*C-(r)iks

about to summon  make come spirit immortal  POS attach

‘... he was about to call forth the various spirits and their ilk.’

(Shiji 史記, 12.42, ca. 91 BC)

The structure in (6a), where the object appears between the verb chí and the directional verb lái, looks very similar to the modern separable configuration, which would consist of a verb followed by its object and then a directional particle, as in (3a). The structure in (6b), where the object appears after both verbs, looks very similar to the modern inseparable configuration, which would be made up of a verb followed by a directional particle and then the verb’s object, as in (3b).

There is also an obvious connection in meaning between the Old Chinese forms and the Modern Mandarin forms that they resemble. In both (6a) and (6b) there is a conversational implicature that the motion event described by the directional verb lái indicates a path over which the event described by the first verb occurs or over which one of the arguments of the first verb moves as a result of the action expressed by the first verb. In (6a) lái indicates that the action of holding up, expressed by the verb chí, occurs over a path towards the speaker, and in (6b) lái indicates that the spirits were summoned in a direction towards the speaker.

There are several major differences between the Old Chinese and Modern Mandarin forms, however. The form lái in both of the Old Chinese examples is clearly an ordinary verb. As is shown below, it takes part in morphological processes in Old Chinese that are restricted to verbs and it also occupies the same syntactic environment as any other verb.

There is also a very clear difference in meaning between the separable and inseparable configurations in Old Chinese, unlike in Modern Mandarin, where it seems there is no difference. In Old Chinese the separable configuration is typically associated with self-agentive motion. In the example in (6a) the subject is told to come under his own force towards the speaker while holding up Wei Qi’s head. The inseparable configuration, on the other hand, is associated with caused motion. In (6b) the spirits are summoned and so they are caused to come towards the speaker.

The association of the separable configuration with self-agentive motion is easy to understand if other examples with a similar structure are considered. It was quite common in Old Chinese to co-ordinate clauses without any overt marking when the two clauses described two separate events that occurred in sequence. When the subject of the two clauses had the same referent, it was also common for the subject of the second clause to be elided through zero anaphora. The coincidence of these factors would give rise to forms like those in (7) below, which have a very similar structure to the form in (6a).

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8 The relationship between the zero subject of the second clause and the full subject of the first clause discussed here is anaphoric, but note that in all historical varieties of Chinese it is quite common for subjects that can be understood from context not to be overtly realised. For discussion of this phenomenon in Old Chinese, see Pulleyblank (1995:13–14), and for discussion of it in Modern Mandarin, see Li and Thompson (1981:657–662).
The diachronic evolution of the directional particle lái in Mandarin

(7) a. Unmarked co-ordination of clauses in Old Chinese

攻擊李由軍破之。

attack Li You army destroy 3.S.OBJ

‘He attacked Li You’s army and destroyed it.’

(Shiji 史記, 54.4, ca. 91 BC)

b. 若雖長大, 好帶刀劍, 中情怯耳。

although long big like carry knife sword inside feeling cowardly that’s all

‘Though you may be tall and big and like to carry a knife and a sword, inside your temperament is just cowardly.’

(Shiji 史記, 32.3, ca. 91 BC)

The sequence of the clauses is iconic for the order of the events that they describe. So in (6a) above the actor is understood to first hold some object and then to come. This would give rise to the conversational implicature that the directional verb is merely describing a path over which the event of holding was performed. This implicature was probably later conventionalised as lái became grammaticalised, giving rise to the modern interpretation of lái as simply ‘hither’, as in dài-lai 帶來 ‘carry-hither’, shown in (3b) above.

It is possible to see why caused motion would be associated with the inseparable configuration in Old Chinese, as in (6b). It was quite common in Old Chinese for transitive verbs to appear in serial verb configurations where the verbs shared their subject and object arguments. Some examples of transitive verbs in a serial verb configuration are shown in (8) below.

(8) a. Old Chinese verbs in a serial verb configuration

與秦擊敗楚於重丘。

with Qin attack defeat Chu at Chongqiu

‘With Qin [he] attacked and defeated Chu at Chongqiu.’

(Shiji 史記, 46.36, ca. 91 BC)

b. 意除去先帝之臣...

completely remove get.rid.of former emperor POS original vassal

‘[He] dismissed all the former emperor’s original vassals ...’

(Shiji 史記, 87.24, ca. 91 BC)
One key feature of the forms shown in (6b) and (8) is that it seems the two verbs cannot be separated. For example, in (8b) above the pre-verbal modifier jin 隨 appears before both verbs and there is no attested example in the Old Chinese section of the corpus where a pre-verbal modifier can appear between two verbs in a structure of this type. This same observation also applies to the example in (6b), which contains the verb lái. Both lái and the verb in front of it, zhāo 召 ‘summon’, are preceded by the adverbial modifier jiāng 將 ‘about to’. This modifier could probably not be inserted between them.

The verbs in the inseparable structure in (8) also share all their arguments; that is, in these examples the agent arguments of both verbs have the same referents and so do the patient arguments. It appears that verbs that appear in this structure in Old Chinese always share their arguments in this way. This presents an interesting problem for the analysis of lái in (6b). In (6a) lái is intransitive and non-causative, with only a theme argument, but in (6b) lái must be transitive and causative, with a causer and theme arguments, since it is paired in the inseparable structure with the causative verb zhāo, which has causer and theme arguments. It was in fact possible for the verb lái in Old Chinese to be either causative or non-causative, as can be seen in (9) below, where lái is the only verb in the clauses. In (9a) lái is non-causative and in (9b) lái is causative.

(9) a. Non-causative and causative uses of lái when it is the only verb in the clause

有 朋 自 遠 方 來,
yòu péng zì yuǎn fāng lái
*C-(r)ik

have friend from distant place come

不 亦 樂 乎？
bú yì lè hū
not indeed happy Q.PART
‘When friends come from afar, is it not a pleasure?’

(Lúnyǔ 論語, 1.1, ca 200 BC)

b. ...故 遠 人 不 服,
...gù yuǎn rén bù fú
thus distant people not submissive

則 修 文 德 以 來 之。
zé xiū wén dé yǐ lái zhī
*C-(r)iks

then cultivate culture virtue in.order.to make.come 3.S.OBJ
‘... so if distant people are not submissive, then one should cultivate one’s virtue to make them come.’

(Lúnyǔ 論語, 16.1, ca 200 BC)

There was most likely a morphological difference between the causative and non-causative variants of the verb lái in Old Chinese. The causative form was probably derived from the non-causative form through the addition of the suffix *-s (Downer 1959; Baxter 1992:313–319; Sagart 1999:131–132 and Mei [1980]2000:315–319). In Baxter’s (1992) reconstructed Old Chinese pronunciation, which is indicated between the Modern Mandarin
transcription and the gloss line in (6) and (9), the non-causative variant of ɿài was pronounced *C-(r)êk, and its causative variant was pronounced *C-(r)êks, with an *-s suffix.

The evidence for reconstructing the *-s suffix is fairly indirect and there is controversy over both whether it should be posited at all and, if it can be posited, what function(s) it should be assigned. The main piece of evidence supporting the reconstruction of the *-s suffix is the attested alternation in tone in the reading tradition of the Middle Chinese period (AD 200–1000) called sì shēng bié yì 四聲別義 ‘four tones differentiate meaning’. Under this tonal alternation, verbs that were normally read in one of the three Middle Chinese tone classes pǐngshēng 平聲 ‘level tone’, shǎngshēng 上聲 ‘rising tone’ and rùshēng 入聲 ‘entering tone’ would be read in the fourth tone class qǐshēng 去聲 ‘departing tone’. The change in tone indicated a difference in meaning. Although this morphological alternation was realised as a difference in tone in Middle Chinese, phonological reconstruction suggests that the form in Old Chinese was most probably a suffix with the form *-s. There is also an apparently cognate suffix in Classical Tibetan that has the form *-s (Baxter 1992:313–319; Sagart 1999:131–132 and Mei [1980]2000:315–319).

The *-s suffix seems to have had a variety of different functions in Old Chinese, depending on what verb it attached to (see Downer 1959; Schüessler 1985:349 and Mei [1980]2000 for different analyses of the functions of *-s). However, in the case of the verb ɿài and the other directional verbs in Old Chinese, the *-s suffix seems to always serve the function of deriving a causative form from a basically non-causative form.

Derivation by *-s is only one example of the system of morphological derivation that existed in Old Chinese. This system has almost entirely disappeared as Chinese has evolved away from being an inflecting language towards being an isolating language.

From the evidence presented above, it can be seen that in Old Chinese there are forms that are similar to the directional constructions in Modern Mandarin, but they differ from the Modern Mandarin forms in significant ways. These similar-looking forms were probably the prototypes that were later reanalysed through successive stages to produce the Modern Mandarin forms.

5 The evolution of the directional constructions in the Middle Chinese and Early Mandarin periods

There are several major differences between the Old Chinese prototypes for the directional particle ɿài and its syntactic constructions and the Modern Mandarin forms. Unlike the Old Chinese verb ɿài and the verb ɿài in Modern Mandarin descended from it, the Modern Mandarin directional particle ɿài cannot act as an independent predicate and cannot have its own argument structure. There has also been a change in the meaning of the separable and inseparable configurations: in Modern Mandarin they no longer encode a distinction between self-agentic and caused motion.

It is difficult to determine when the directional verb ɿài in the separable and inseparable configurations lost the ability to act as an independent predicate and so crossed over the boundary to become the directional particle ɿài. It is possible to see, however, when ɿài lost the ability to have an independent argument structure. From the Old Chinese period up to the early Middle Chinese period there are many forms attested that have the key structure of a directional verb ɿài following another verb where ɿài independently introduces an argument to the clause, such as that in (10) below, where ɿài independently takes a location argument.
(10) Lái introducing location argument to clause

汝懷刃密來我側...

rǔ huái rèn mì lái wǒ cè
2.s conceal.in.clothes blade secretly come 1.s side
‘... you conceal a knife in your clothes and sneak up on me ...’

(Shǐshùoxīnyǔ 世說新語, p.719, ca. AD 420–444)

By the mid-Early Mandarin (AD 1000–1900) period, as represented by the Lǎoqìdà (ca AD 1400), there are no examples of lái or its antonym qù, which belongs to the same subclass of directional particles in Modern Mandarin, in a postverbal position where it introduces a location argument. No examples appear in any later texts in the corpus. It can therefore be assumed that by the Early Mandarin period lái in the postverbal position has already lost its ability to have an independent argument structure. This is one of the key attributes that distinguishes the directional particle lái in Modern Mandarin from its corresponding directional verb lái and so is a main indicator of its grammaticalisation.

There is probably no single factor that led to the loss of the non-causative and causative distinction marked in Old Chinese by the separable and inseparable configurations. One likely factor is the grammaticalisation of the verb lái in these configurations. Once lái had lost its independent argument structure, it would simply have functioned as a modifier to the predicate and so its relationship to the arguments in the clause would have been wholly determined by its accompanying verb.

In addition to the specific factor of the grammaticalisation of lái, there was also a general decline in use of the Old Chinese verbal morphology, including the suffix *-s, which began in the Middle Chinese period (Li and Thompson 1976 and Mei [1991]2000). In its place there was an increasing tendency from the end of the Old Chinese period onwards for verbs that previously took part in the causative/non-causative alternation to appear in bimorphic compounds (Norman 1988:129). The bimorphic collocations that appeared in this period became increasingly lexicalised. This meant that there were alternative polysyllabic forms for the expression of causative and non-causative meanings, whereas previously derived forms of the same monosyllabic morpheme would have been used. For example, in Old Chinese miè 濾 is attested as meaning either ‘wipe out’ or ‘be wiped out’. At this time there are also disyllabic expressions like hūnmiè 毀滅 ‘destroy and wipe out’ (causative) and mièwáng ‘be wiped out and disappear’ (non-causative). In Old Chinese, however, miè is more common on its own than in compounds. In the Zuòzhùàn (ca 475 BC), miè occurs 136 times and it only appears in a recognisable compound once. In the Shījì (ca 91 BC), miè occurs alone 355 times and it only appears in recognisable compounds 10 times. By the Early Mandarin period, as represented by Zhūzhūlèi (AD 1270), Piáotónghshì yànjùe and Lǎoqìdà yànjùe (ca AD 1400), and Rūlínwǎishì (early 18th century), however, miè is only ever used in compounds.

In Old Chinese there was also the ‘pivot construction’, which contains a verb that takes both a noun phrase complement and a clause complement (Pulleyblank 1995:40–42). The noun phrase complement of the matrix verb serves as both the object of the matrix verb and the subject of the embedded complement clause, hence the name ‘pivot’. An example of this structure is shown in (11) below.
The diachronic evolution of the directional particle \lai\ in Mandarin

(11) Pivot construction in Old Chinese

\begin{verbatim}
líng gǒu yǒu yuàn suī fùrén zhē hào zhī
\end{verbatim}
command if have resentment prep lady nom repay 3.s.obj

‘[He] ordered all who had any grudge against the lady to repay it.’

(Zuòzhuan 左傳, Āi Gōng 26th year 哀公二十六年, p.1728, ca. 475 BC)

One of the functions of the pivot construction was to create periphrastic causatives, as can be seen in (11). However, in Old Chinese the first verb in the construction could only be one of a very small set, which consisted of shí 使 ‘send’, líng 令 ‘command’, zhù 助 ‘help’ and wèi 謂 ‘call’ (Pulleyblank 1995:40–42). In Middle Chinese, however, other verbs came to act as the first verb in this structure. It was also common for intransitive verbs that described a resulting event or state to appear as the second verb in this structure. This generated a conversational implicature that there was a cause and result relationship between the two verbs in this construction. Some examples of this are shown in (12) below.

(12) a. Extended periphrastic causatives in Middle Chinese

\begin{verbatim}
huàn jiāngláng jiúé!
call Jianglang wake
‘Call Jianglang awake!’
(Shìshuòxīnyǔ 世說新語, Jiăujué no.27 假説第二十七, p.725, ca AD 420–444)
\end{verbatim}

b. jīn dāng dā rǔ qiān liàng chī zhé
now should beat 2.s front two tooth break
‘Now [I] should beat your front two teeth broken.’

(Xiănyújìng 賢愚經, quoted in Ohta [1958]1987:197, ca AD 430)

Li and Thompson (1976:481) show that as the number of compound causative forms and the number of periphrastic causative forms increased in the Middle Chinese period, the number of morphologically derived causatives declined. Later the number of causative verbs available in the pivot construction also declined and the compound causatives became the most common form. There is therefore a definite trend in the history of the Chinese language away from morphologically derived causatives and towards compound and periphrastic causatives, which has subsequently moved in favour of compound causatives alone. The loss of the formal marking of morphologically derived causatives may have made the difference between the separable and inseparable configurations unclear. The later decline of the pivot construction, which resembles the separable configuration, as a productive means of forming causatives may have also contributed to blurring the distinction between the separable and inseparable configurations.

The causative/non-causative distinction between the separable and inseparable configurations seems to have been lost by the end of the Middle Chinese period. In the texts of this time the directional forms can either appear before the object or after the object when
a caused motion meaning is intended. It is difficult to find good examples that are directly parallel to each other, but in (13) are two examples with the antonym of lài, qù.\(^9\)

(13) a. Causative with qù after object in late Middle Chinese

阿爷 貳 此 孩 去...
āyé māi què háir qù
uncle sell off child away
'The uncle sold off the child ...'

(Dūnhuángbiānwén 敦煌變文, p.384, Five Dynasties period AD 907–1126)

b. Causative with qù before object in late Middle Chinese

...身 穿 金鉄，揭 去 頭牟...
shēn chuān jīnjīa jiē qù tóumóu
body wear armour remove away helmet
'... on his body he wore armour, and he took off his helmet ...'

(Dūnhuángbiānwén 敦煌變文, p.384, Five Dynasties period AD 907–1126)

By the end of the Middle Chinese period, the causative/non-causative distinction between the inseparable and separable configurations had been lost, and by the mid-Early Mandarin period lài in the separable and inseparable configurations had been grammaticalised to the extent that it could no longer take its own argument structure. By the mid-Early Mandarin period then the directional particle lài in its basic spatial sense and its associated grammatical constructions appear to have reached the state found in Modern Mandarin.\(^10\)

6 Conclusion

The directional particle lài in Modern Mandarin has been grammaticalised from the directional verb lài in earlier varieties of Chinese. The particle developed as a result of several reanalyses of the verb that occurred in earlier varieties of Chinese when the verb appeared in either the separable or inseparable configurations. In the course of its grammaticalisation, lài lost the ability to act as independent predicate and also its independent argument structure. The original verb lài has existed throughout the period of development of the directional particle lài and continues to exist alongside it in Modern Mandarin. The presence of both the directional verb and the particle is probably best considered an example of divergence.

The distinction between the separable and inseparable configurations in which lài appeared was also reanalysed. In Old Chinese these two structures encoded a difference in causativity, but in Modern Mandarin there is no clear difference between the structures. The overlapping functions of the separable and inseparable configurations in Modern Mandarin could be considered an example of layering. The loss of the causative/non-

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9 Note that (13a) is not a perfect example, since the direction of the selling is marked with both què 'off' and qù 'away'. The presence of què is an additional variable that could have an influence on this structure. However, this example does clearly show that qù can appear separated from the verb when a caused motion meaning is intended and when there is no self-agentive motion.

10 Lài has undergone other changes in the development of its metaphorical senses since the mid-Early Mandarin period. The other directional forms mentioned in §3 have also undergone many changes in this time. See McElvenny (2006) for further discussion of these issues.
causative distinction in these structures can probably be attributed to the general loss of the verbal morphology that was previously used to mark this distinction and also to the progressing grammaticalisation of the particle. As it lost the features of a verb, its relationship to the arguments in a clause came to be determined solely by the verb it was associated with.

The diachronic developments described above have applied to varying degrees to all the directional particles in Modern Mandarin and have led to their emergence as a distinct class of morphemes in the language. In the modern language all the directional particles appear postverbally and serve the basic function of indicating a path associated with the event described by the verb. They have all been grammatikalised from directional verbs in earlier varieties of Chinese, and in most cases the source verbs continue to exist alongside the grammaticalised particles.

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