

Tong King Lee

The University of Queensland, Australia

The Semantic Behaviour of Mandarin LAI in Serial Verb Constructions

Abstract. This paper aims to prove that the semantic behaviour of LAI in Mandarin Chinese changes as it assumes different grammatical positions in serial verb constructions. A synchronic analysis of Chinese linguistic data shows that LAI must have undergone the three stages of syntactic reanalysis postulated in Xing (2003), namely, serialization, decentralization and functionalization. Throughout these processes, LAI is gradually decategorized from a motion verb, coverb / resultative complement, verbal link and finally into a grammatical marker. Assuming unidirectionality in any grammaticalization process, it is argued that the semantic change of LAI must have followed the order: motional feature → deictic feature → grammatical feature. Importantly, the grammatical meaning of LAI emerges through the process of metaphorical extension from physical to abstract domains of experience. This conforms to the first semantic-pragmatic tendency characterizing the path of semantic change in Traugott (1989), which states that meanings based in the external described situation change to meanings based in the internal (evaluative/perceptual/cognitive) described situation.

Keywords: grammaticalization, syntactic reanalysis, semantic change, metaphorical extension

1. Introduction

As one of the most important mechanisms in the generation of syntactic categories (grammatical structures and functional markers), grammaticalization has long been a focus of much linguistic investigation. Following Hopper and Traugott (1993), we define grammaticalization as ‘the process in which lexical items and constructions assume in certain linguistic contexts a grammatical function, and once grammaticalized, continue to develop more grammatical functions’(xv). The emergence of new grammatical markers is not contingent on the loss or dysfunction of its lexical predecessor, such that there exists a ‘layering’ of morphemes which are etymologically and phonologically identical but functionally different (Bybee et al 1994:21).

The phenomenon of semantic extension in grammaticalization is intimately related to human cognition. It has been claimed that metaphor and metonymy are the two main mechanisms which motivate the emergence of grammatical meanings from lexical meanings (Hopper and Traugott 1993:77). Specifically, Heine et al. (1991) and Heine (1997) argue for metaphor as the main process in the development of spatio-temporal terms, such as the development of body-part terms into locatives and of space-related terms into temporal terms. For instance, the TIME IS SPACE metaphor is responsible for the temporal use of *behind*, as in ‘We’re *behind* schedule’. This lexical extension is the result of a conceptual mapping between the concrete spatial domain to the abstract temporal domain. Metaphorical extension can therefore be used to account for the phenomenon of semantic change diachronically and meaning relatedness synchronically.

The Mandarin morpheme LAI exhibits a classic case of polysemy, whereby the morpheme can be used in several senses, each associated with a specific syntactic structure. The more grammatical senses of LAI, however, have not been explored in a systematic manner. In this

contribution, we trace the emergence of the grammatical LAI specifically in serial verb constructions. Here we follow Heine et al. (1991) in regarding grammaticalization as a panchronic process.¹ We adopt a synchronic perspective in the investigation of the different senses of LAI in different syntactic environments and their meaning relatedness. At the same time, we apply the diachronic framework of syntactic reanalysis postulated in Xing (2003) to show that the lexical polysemy exhibited by LAI is a result of a series of syntactic change common to all Mandarin verbs undergoing grammaticalization. Lastly, we will provide a cognitive account of the emergence of a grammatical meaning of LAI, hence proving that grammaticalization is not merely an internal linguistic process, but relates itself closely to cognitive processes.

2. LAI as a main verb and its motional feature

According to Heine et al. (1991:33), the source meaning of a morpheme ‘may be said to refer to some of the most elementary human experiences, typically derived from the physical state, behaviour, or immediate environment of man.’ Following this definition, it can be ascertained that the source meaning of Mandarin Chinese LAI lies in its spatial sense ‘to come’ (therefore denoting a physical state), which is its primary meaning as a main verb.²

The cognitive basis of the semantics of LAI can be illustrated by the SOURCE-PATH-GOAL image schema, which consists of three elements: a source point A, a terminal point B, and a vector denoting a path from A to B. As Johnson (1987) points out, this schema is a recurrent structure underlying our bodily interaction with the immediate environment, such as walking from one place to another, throwing a ball to someone, hitting someone, giving someone a present etc.

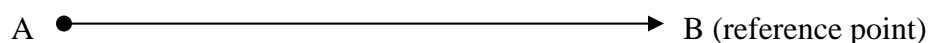


Figure 1 The SOURCE-PATH-GOAL image schema

The cognitive basis of LAI as a main verb can be represented by the SOURCE-PATH-GOAL image schema in Figure 1. The semantics of LAI is contingent on a specific point of reference, in this case, Point B. When an object traverses from A toward B, it embodies the motion represented by LAI from the perspective of Point B. Therefore, the semantics of LAI as a main verb has two aspects: (1) it has a [+active] (i.e. motional) feature, and (2) it is always relative to a specific point of reference.

Syntactically, LAI as a main (and only) verb occurs in a simple SVO construction, as shown below:

(A) [(NP₁) + LAI + (NP₂)]

As an illustration, LAI as a main verb can be used in the following instances (Lü 1984:45):³

a) NP (locative or temporal) + LAI + NP (agent)

(1) 我 家 裏 來 了 客 人。
 wo jia li LAI le keren
 I house-LOC come PFV guest
 A guest has come to my house.

(2) 昨 天 來 過 三 個 人。
 zuotian LAI guo san ge ren
 yesterday come EXP three CL people
 Three people came yesterday.

b) NP (agent) + LAI + NP (patient)

(3) 他 來 過 兩 封 信。
 ta LAI guo liang feng xin
 he come EXP two CL letters
 He sent two letters here.

(4) 你 們 能 來 幾 個 人?
 nimen neng LAI jige ren
 you-PLU can come how many people
 How many of you can come?

c) **NP (agent) + LAI + NP (locative)**

(5) 老 鄭 明天 來 北京。
 laozheng mingtian LAI beijing
 laozheng tomorrow come Beijing
 Laozheng is coming to Beijing tomorrow.

(6) 我 以前 來 過 這兒。
 wo yiqian LAI guo zhe'er
 I last time come EXP here
 I have been here before.

d) **LAI + NP**

(7) 快 來 一 杯 水。
 kuai LAI yi bei shui
 quick come one glass water
 Fetch a glass of water quickly.

(8) 來 一 碗 肉 絲 面。
 LAI yi wan rousimian
 come one bowl shredded meat noodle
 (Make) a bowl of shredded meat noodle.

In examples (1) through (8) above, LAI denotes the spatial movement of an entity from a point of origin to a point of destination, thus embodying the [+active] feature. As mentioned above, the use LAI always presupposes a particular vantage point, which relates to the directionality of the spatial motion in question. Specifically, LAI denotes the path of an entity moving toward the location of the speaker or a specific discourse referent. Conversely, QU, the antonym of LAI, denotes the path of an entity moving away from the position of the speaker or discourse referent. In other words, besides denoting a spatial movement, LAI also has an inherent deictic feature; it denotes both a spatial motion of an entity as well as the direction of motion with respect to the location of the speaker or a discourse referent. The dichotomy of LAI and QU is similar to that of the English verbs ‘come’ and ‘go’:

- (9) a. I'll *come* to your apartment tomorrow.
 b. I'll *go* to your apartment tomorrow.

As an example of how aspects of construal pertain to perspective, Langacker (2003:252) explains that the choice of 'go' vs. 'come' indicates whether the speaker is maintaining his own vantage point or adopting that of the listener. The same point can be made for the deictic function of LAI. However, when LAI performs as the only verb in a sentence as in the above examples, it carries with it the main action in the utterance, in which case its motional feature naturally takes precedence over its deictic feature.

It should be noted, however, that the deictic feature of LAI may or may not be relative to the actual position of the speaker or discourse referent. In specific discourse contexts, it may also refer to a metonymic direction, as seen in the following example:

- (10) 他 昨天 來 過 我 開 的 餐館。
 ta zuotian LAI guo wo kai de canting
 he yesterday come EXP I open POSS restaurant
 He came to my restaurant yesterday.

In example (10), LAI denotes the movement of the subject *ta* ('he') from an unknown point of origin to the restaurant, the point of destination. The speaker *wo* ('I') is taken as the point of reference. There are two possible scenarios. In the first, the speaker is physically in the restaurant when the subject arrived, in which case LAI is used in its conventional sense, since the subject is moving towards the location of the speaker. In the second, the speaker is not physically in the restaurant at the time the subject arrived. In this case, the use of LAI is still acceptable even though the subject was not actually moving towards the speaker at the time of motion, as the speaker is in ownership of the restaurant, the destination of the subject's motion. The location of the restaurant can therefore be metonymically related to the speaker. In the case when these two locations do not overlap (the second scenario), LAI can still be used to denote the movement of

the subject to the point of destination, as the latter is conceptually linked to the location of the speaker. This explains why a Singaporean on vacation in Taiwan may ask a local the following question: “你來過新加坡嗎? *ni LAI guo xinjiapo ma*” (Have you come to Singapore before? ⁴)

In this context, the motional feature of LAI is retained, while its deictic feature is abstracted.

In summary, the semantics of LAI as a main verb includes two aspects: a motional feature denoting spatial movement, and a deictic feature denoting the direction of motion relative to a specific point of reference. When used as the only verb in a sentence, the motional feature of LAI is primary, whereas its deictic feature is inherent.

3. LAI in serial verb constructions and its deictic features

Xing (2003) postulates three stages of syntactic reanalysis involved in the grammaticalization of Mandarin verbs: serialization, decentralization and functionalization. A synchronic analysis of LAI in contemporary usage shows that the morpheme exists in grammatical constructions which conform to these syntactic stages, suggesting that LAI has undergone these three re-analysis processes in the history of its semantic-syntactic evolution.

As implicated in Xing (2003), the serial verb construction is the first and therefore the most crucial environment in the grammaticalization of verbs, illustrated by the following formula:

$$(B) [(NP_1) + V + (NP_2)] \rightarrow [(NP_1) + V_1 + (NP_2) + V_2 + (NP_3)]$$

The above formula illustrates a structural reanalysis from a simple SVO construction into a serial verb construction, termed ‘serialization’ in Xing (2003). When LAI undergoes such a change, it can either take the position of V_1 or V_2 in the new construction. For instance:

- (11) 我 來 學校 → 我 吃 了 飯 才 來 學校。 (VP + LAI)
 wo LAI xuexiao → wo chi le fan cai LAI xuexiao
 I come school → I eat PFV meal ADV come school
 ‘I come to school’ → ‘I take my meal before coming to school.’

- (12) 他 來 醫院 → 他 來 了 醫院 就 回家。(LAI + VP)
 ta LAI yiyuan → ta LAI le yiyuan jiu huijia
 he come hospital → he come PFV hospital ADV go home
 He came to the hospital → He went home after he came to the hospital.

The above examples involve two consecutive actions, represented by LAI and one other verb. In this case, the semantic primacy of the two verbs are equal, so LAI denotes an independent action in its own right and therefore preserves its [+active] feature.

However, in many situations, each verb in a serial verb construction represents only a part of an event, in which case ‘some verbs may lose so much categoriality...that they are no longer clearly distinguishable from prepositions or case-markers.’ (Hopper and Thompson 1984: 735) This claim conforms to the second stage of syntactic reanalysis in Xing (2003), known as ‘decentralization’:

- (C) [(NP₁) + V₁ + (NP₂) + V₂ + (NP₃)]
 → Case 1: [(NP₁) + V_{main} + (NP₂) + V_{secondary} + (NP₃)]
 → Case 2: [(NP₁) + V_{secondary} + (NP₂) + V_{main} + (NP₃)]

We will show in the following that when LAI enters the syntactic change illustrated in (C), its deictic feature is projected whereas its verbal feature is weakened, relegating it to the position of a secondary verb. This is evidenced by the fact that in a serial verb construction, LAI normally loses the salient grammatical features of a verb, that is, features associated with the expression of temporal information. These include: (1) combinability with the aspect markers *le*, *zhe*, *guo*; (2) reduplication.⁵ By definition, a verb compatible with these grammatical features is a main verb, whereas a verb incompatible with these features is a secondary verb (Shi 2001:142). In the following, we consider two cases in turn, where LAI occurs before and after a main verb respectively. We will show that LAI displays a different semantic feature in each of these positions.

3.1 Case 1: The semantic feature of “LAI + VP”

When LAI occurs before a main verb in a serial verb construction, it is used to introduce a locative phrase, or a spatial movement which precedes the main action, hence behaving like a coverb. Here LAI acquires a prepositional meaning similar to *dao* (‘to reach’). In other words, LAI has been partly decategorized from a verb to a quasi-preposition. This is shown by the fact that LAI loses the verbal features associated with the expression of temporal information, as illustrated in the following examples:

- (13) a. 他 來 市場 買 東西 (了)。
 ta LAI shichang mai dongxi (le)
 he come market buy things (PFV)
 He has come to the market to buy things.
- b.* 他 來 了 (過 / 著) 市場 買 東西 (了)。
 ta LAI le (guo / zhe) shichang mai dongxi (le)
 he come PFV (EXP/PROG) market buy things (PFV)
- c.* 他 來來 市場 買 東西 (了)。
 ta LAI LAI shichang mai dongxi (le)
 he come-come market buy things (PFV)
- (14) a. 他 來 日本 旅行 過 兩次。
 ta LAI riben lüxing guo liangci
 he come Japan vacation EXP twice
 He has been to Japan for vacation twice.
- b.* 他 來 了 (過 / 著) 日本 旅行 過 兩次。
 ta LAI le (zhe/guo) riben lüxing guo liangci
 he come PFV (EXP/PROG) Japan travel EXP twice
- c.* 他 來來 日本 旅行 過 兩次。
 ta LAI LAI riben lüxing guo liangci
 he come-come Japan vacation EXP twice

- (15) a. 他 來 公園 散 (散) 步。
 ta LAI gongyuan san (san) bu
 he come park stroll (stroll)
 He has come to the park for a stroll.
- b.* 他 來 了 (過 / 著) 公園 散 (散) 步。
 ta LAI le (guo/zhe) gongyuan san (san) bu
 he come PFV (EXP/PROG) park stroll (stroll)
- c.* 他 來來 公園 散 (散) 步。
 ta LAI LAI gongyuan san (san) bu
 he come-come park stroll (stroll)
- (16) a. 他 來 學校 上 (上) 課。
 ta LAI xuexiao shang(shang) ke
 he come school attend(attend)lessons
 He comes to school to attend lessons.
- b.* 他 來 了 (過 / 著) 學校 上 (上) 課。
 ta LAI le (guo / zhe) xuexiao shang(shang)ke
 he come PFV (EXP/PROG) school attend(attend)lesson
- c.* 他 來來 學校 上 (上) 課。
 ta LAI LAI xuexiao shang(shang) ke
 he come-come school attend(attend)lesson
- (17) a. 他 來 這裏 休息 (休息)。
 ta LAI zheli xiuxi (xiuxi)
 he come here rest (rest)
 He comes here to take a rest.
- b.* 他 來 了 (過 / 著) 這裏 休息 (休息)。
 ta LAI le (guo/zhe) zheli xiuxi (xiuxi)
 he come PFV (EXP/PROG) here rest (rest)
- c.* 他 來來 這裏 休息 (休息)。
 ta LAI LAI zheli xiuxi (xiuxi)
 he come-come here rest (rest)

In the preceding examples, the main verb (or verb phrase) following LAI can either combine with an aspect marker or undergo reduplication to express certain temporal information associated with the main action. On the other hand, it is normally ungrammatical for LAI to do so. This demonstrates that LAI has lost part of the grammatical features prototypically associated with a verb.

Semantically speaking, LAI has also experienced changes as a secondary verb, in the sense that its deictic feature has now surpassed its motional feature, since the primary action of an utterance has now been assumed by a main verb, with LAI functioning as an indicator of a related spatial movement preceding the primary action. Inherent in this spatial movement is the directionality of the primary action with respect to either the speaker or a discourse referent. Specifically, LAI indicates that the primary action is occurring at the location of the speaker or discourse referent. To test this, we can replace LAI in examples (12) through (16) with its antonym, QU. The resulting effect is that the primary action of each sentence remains unchanged, but the directionality of the action is reversed.

- (18) 他來市場買東西(了)。 → 他去市場買東西(了)。
 ta LAI shichang mai dongxi le ta QU shichang mai dongxi le
 he come market buy things PFV he go market buy things PFV
 He has come to the market to buy things. He has gone to the market to buy things.
- (19) 他來日本旅行過兩次。 → 他去日本旅行過兩次。
 ta LAI riben lüxing guo liangci ta QU riben lüxing guo liangci
 he come Japan vacation EXP twice he go Japan vacation EXP twice
 He has come to Japan twice for vacation. He has been to Japan twice for vacation
- (20) 他來公園散(散)步。 → 他去公園散(散)步。
 ta LAI gongyuan san(san) bu ta QU gongyuan san(san) bu
 he come park stroll (stroll) he go park stroll (stroll)
 He has come to the park for a stroll. He has gone to the park for a stroll.

- (21) 他 來 學校 上(上)課。 → 他 去 學校 上(上)課。
 ta LAI xuexiao shang(shang) ke ta QU xuexiao shang(shang) ke
 he come school attend(attend)lessons he go school attend(attend)lessons
 He comes to school to attend lessons. He goes to school to attend lessons.
- (22) 他 來 這裏 休息(休息)。 → *他 去 這裏 休息(休息)。
 ta LAI zheli xiuxi (xiuxi) ta QU zheli xiuxi (xiuxi)
 he come here rest (rest) he go here rest (rest)
 He comes here to take a rest. 'He goes here to take a rest.'

In examples (18) through (22), the main action in each pair of sentences containing LAI and QU is the same (as represented by the main verb). However, as LAI and QU have inherently polarized deictic features, the directionalities of the main action in the two sentences are diametrically reversed. This explains why the sentence containing QU in (22) is ungrammatical: the inherent deictic feature of QU (which denotes an entity moving away from the speaker) cannot compromise with that of *zhe li* (literally 'here', the speaker being the reference point). On the other hand, LAI and *zhe li* can co-exist because of their common deictic feature. This demonstrates that in the serial verb construction, the semantic feature of LAI is commonly more deictic than motional. In this case, LAI is used to indicate the directionality of occurrence of the main action with respect to the speaker or a discourse referent, rather than denote an independent action in its own right.

3.2 Case 2: The semantic features of “VP + LAI”

We have seen how LAI may lose its verbal features when it occurs pre-verbally in a serial verb construction. The same applies to the case when LAI occurs post-verbally. In this situation, LAI acts as a verbal complement, in the sense that it introduces a directional component after the main verb. The following examples illustrate the deictic function of LAI in a post-verbal position:

- (23) 賈珍 有 了 幾分酒， 益發 高興，
 Jiazhen you le jifen jiu, yi fa gaoxing,
 Jiazhen have PFV some wine more happy
 便 命 取 了 一 竿 竹簫 來。
 bian ming qu le yi gan zhuxiao LAI
 ADV order take PFV one CL bamboo flute come
 Jiazhen was feeling ecstatic from the wine he drank, and ordered a bamboo flute to be
 fetched. (HLM⁶, Chapter 20)
- (24) 寶玉 笑 著 走 近 床 來 道：
 Baoyu xiao zhe zou jin chuang LAI dao
 Baoyu smile EXP walk near bed come say
 “妹妹 身上 可 大 好 了？”
 Meimei shenshang ke dahao le
 sister health PRT recover PFV
 Smiling, Baoyu walked near the bed and said, “Has sister’s health recovered?” (HLM,
 Chapter 30)
- (25) 探春 早 又 遞 過 一 鍾 暖 酒 來。
 tanchun zao you diguo yi zhong nuanjiu LAI
 Tanchun soon again pass one CL warm wine come
 Tanchun has again passed over a cup of warm wine. (HLM, Chapter 60)
- (26) 忽 有 一 個 婆 子
 hu you yi ge pozi
 suddenly have one CL elderly lady
 手 裏 托 了 一 碟 糕 來。
 shouli tuo le yi die gao LAI
 hand in carry PFV one CL cake come
 At this time, an elderly lady came with a dish of cakes in her hands. (HLM, Chapter 50)
- (27) 吃 飯 畢， 又 陪 入 園 中 來。
 chifan bi you pei ru yuan zhong LAI
 eat finish ADV accompany enter garden LOC come
 came into the garden after the meal (HLM, Chapter 70)

In a “V + LAI” construction, LAI indicates that the action named by the preceding verb is directed toward the location of a discourse referent. In other words, the main action denoted by V is always observed from a specific point. In (23), LAI indicates that the action 取了一竿竹簫 ‘fetching a bamboo flute’ is observed from the perspective of Jia Zhen and directed toward him. In (24), LAI indicates that Baoyu’s action 走近床 ‘walking towards the bed’ is observed from Daiyu’s perspective and directed toward her. Similarly, LAI in (25) indicates that Tanchun’s action of ‘passing a cup of heated wine’ is observed from Baoyu’s perspective and directed toward him.

Hence, when LAI occurs after a “V + NP” construction, it performs the deictic function of denoting the orientation of the main action from the perspective of a discourse referent. In this case, LAI does not represent a spatial movement, but the resultative direction of a verbal action in the form “V + (NP) + LAI”. This fact becomes immediately clearer when NP is omitted from the above construction, in which case LAI follows a main verb immediately, forming a verb-resultative (VR) construction:

$$(D) [V + (NP) + LAI] \rightarrow V + \emptyset + LAI \rightarrow V + R$$

The VR construction is a productive grammatical form in Chinese, as seen from the compounds 取來 *qu* LAI ‘take come’, 走來 *zou* LAI ‘walk come’, “遞來 *di* LAI ‘pass come’, 拿來 *na* LAI ‘take come’, 回來 *hui* LAI ‘back come’, 過來 *guo* LAI ‘back come’, 撞來 *zhuang* LAI ‘knock come’. As seen from the literal meanings of the above compounds, LAI indicates that the action denoted by the preceding morpheme possesses a certain directionality ‘come’, and therefore implies that the vantage point of a speaker or discourse referent must be considered for its interpretation. As a resultative component, LAI loses its [+active] feature, while its deictic feature takes over as its primary semantic feature. This is can be seen from the fact that when

LAI in (23) through (27) is replaced with QU, the main action of each sentence remains the same, but the orientations of the actions are reversed.

The above analysis shows that LAI exhibits different semantic features in different syntactic positions. We conclude this section with two further examples which illustrate this fact:

- (28) 請 太爺 來 家 來
 qing taiye LAI jia LAI
 please grand master come home come
 受 一 受 家子 的 禮。
 shou yi shou jiazi de li
 accept one accept family members PRT greeting
 Would grandmaster please come home and accept greetings from members of the family. (HLM, Chapter 10)
- (29) 鳳姐 笑 道：“媳婦 來 接 婆婆 來 了。”
 fengjie xiao dao xifu LAI jie popo LAI le
 Fengjie laugh say daughter-in-law come fetch mother-in-law come PFV.
 Fengjie laughed and said, “Your daughter-in-law has come to fetch you [title *popo* as honorific].” (HLM, Chapter 45)

In (28), the first LAI is a main verb indicating the movement of a person from a point of origin to a point of destination. The second LAI, however, indicates that the action of ‘coming to the house’ is directed towards the speaker. In (29), the first LAI precedes the main verb ‘to fetch’, indicating the location of the main action (the presumed locative *zhe li*, literally ‘here’, being omitted). The second LAI follows the main verb, indicating that the action denoted by the main verb is directed towards the discourse referent ‘mother-in-law’.

3.3 The semantic feature of “VP1 + LAI + VP2”

In the preceding analysis, we have been dealing with serial verb constructions involving LAI and a main verb. In this section, we shall examine the semantics of LAI in serial verb constructions involving two other main verbs: “VP₁ + LAI + VP₂”.

A typical serial verb construction is a symmetrical structure composed of two juxtaposed verb phrases: “VP₁ + VP₂”. When LAI enters this construction as a verb, it disrupts the symmetry of the original structure by inserting a grammatical unit between VP₁ and VP₂. Therefore, in order to regain syntactic symmetry, LAI has to combine with either VP₁ or VP₂ to form a single grammatical unit, resulting in either “ [VP₁ + LAI] + VP₂” or “VP₁ + [LAI + VP₂] ”. This is a result of syntactic reanalysis in the process of grammaticalization. Reanalysis is defined as a change in the structure of an expression or class of expression that does not involve any immediate or intrinsic modification of its surface manifestation (Langacker 1977: 58). Reanalysis typically involves a synthesis of two units (Hopper and Traugott 1993), as is the case in the combination of LAI with either VP₁ or VP₂. The syntactic descriptions below show how LAI may undergo reanalysis when it enters a symmetrical serial verb construction:

- (E) [(NP₁) + V₁ + (NP₂) + LAI + V₂ + (NP₃)]
 → Case 1 [(NP₁) + {V₁ + (NP₂) + LAI } + V₂ + (NP₃)]
 → Case 2 [(NP₁) + V₁ + (NP₂) + {LAI + V₂} + (NP₃)]

The combination of LAI with either VP₁ or VP₂ results in a loss of its independent grammatical status, which further results in a weakening of its lexical meaning. As illustrated in (E), there are two possible cases in which this can occur. In the first case, LAI combines with its preceding verb to form a single grammatical unit, forming the construction “[VP₁ + LAI] + VP₂”:

- (30) 如今 鴛鴦 是 不 當 這 差 了,
 rujin yuanyang shi bu dang zhe chai le
 now Yuanyang MOD NEG do this work PFV
 今日 鴛鴦 偏 接 過 塵尾 來 拂 著。
 jinri yuanyang pian jie guo chenwei LAI fu zhe
 today Yuanyang ADV take EXP duster come dust EXP
 Yuanyang is no longer doing this work, but today she took a duster to dust
 the place here. (HLM, Chapter 40)

- (31) 我 才 看 見 攏 翠 庵 的 紅 梅 有 趣,

wo cai kanjian longcui'an de hongmei youqu
I just see Longcui'an POSS red plum blossom interesting

我 要 折 一 枝 來 插 瓶。

wo yao zhe yi zhi LAI cha ping

I want pluck one CL come put into vase

I just saw some pretty red plum blossoms in Longcui'an. I'm going to pluck one for the vase. (HLM Chapter 50)

(32) 黛玉 直瞪瞪 的 瞅 了 半天

daiyu zhidengdeng de jiu le bantian

Daiyu straight PRT stare PFV half-day

拿 起 手 帕 子 來 擦 眼 淚。

reng naqi shoupazi LAI ca yanlei

ADV raise handkerchief come wipe tears

Daiyu stared blankly for a long while, and then wiped her tears with a handkerchief. (HLM Chapter 30)

(33) 劉 姥 姥 因 上 次 來 過，

liu laolao yin shangci lai guo

Liu old lady because last time come EXP

知 道 平 兒 的 身 份，

zhidao ping'er de shenfen

know Ping'er POSS status

忙 跳 下 地 來 問 “姑 娘 好”。

mang tiao xia di LAI wen guniang hao

hurriedly jump LOC ground come ask young lady good

Grandmother Liu knew who Ping'er was as she came before, and so hurriedly brought herself to the ground and asked: "How are you, my young lady?" (HLM Chapter 39)

(34) 說 著，也 上 床 來 膈 肢 晴 雯。

shuo zhe ye shang chuang LAI gezhi qingwen

say EXP ADV up bed come tickle Qingwen

As he was saying that, he came up to the bed to tickle Qingwen. (HLM Chapter 70)

In the above examples, LAI is not part of the verb phrase following it.

Here LAI is a clitic complement to its preceding verb phrase, indicating the orientation of the action denoted by the latter (with respect to a discourse referent). In other words, LAI has

lost part of its lexical meaning. The semantic feature of LAI in this structure is identical to that in the “VP + LAI” construction discussed earlier.

In the second case, LAI combines with the main verb following it to form a grammatical unit, resulting in the construction “VP₁ + [LAI + VP₂]”:

- (35) 宝 玉 见 了 这 样 ， 知 难 挽 回 ，
 baoyou jian le zheyang zhi nan wan hui
 Baoyu see PFV this know difficult recover
 打 叠 起 千 百 样 的 款 语 温 言 来 劝 慰 。
 dadie qi qianbaiyang de kuanyu wenyan LAI quanwei
 speak LOC numerous POSS gentle words LAI console
 Baoyu knew it would be hard to pacify her and was prepared *to* coax her
 with all sorts of blandishments and kind words. (HLM Chapter 20; Yang and Yang 1999:
 557)

- (36) 自 己 下 床 悄 悄 秉 灯 来 照 。
 zi ji xia chuang qiaoqiao bing deng LAI zhao
 oneself down bed stealthily hold torch LAI illuminate
 Crept down from the bed and stealthily shone a torch. (HLM Chapter 30)

- (37) 这 都 是 当 日 有 钱 的 老 公 们
 zhe dou shi dangri you qian de laogongmen
 this ADV COP that time have money POSS husbands
 和 那 些 有 钱 的 愚 妇 们
 he naxie you qian de yufumen
 and those have money POSS wives

听见 有 个 神 就 盖 起 庙 来 供 着。
tingjian you ge shen jiu gai qi miao LAI gong zhe
hear have CL deity ADV build LOC temple LAI sacrifice EXP

When those wealthy men and their women heard there was a god, they built a temple to make offerings (HLM Chapter 43)

(38) 况且 他 并 不 知 你 病 特 来 瞧 你,
Kuangqie ta bing bu zhi ni bing te LAI qiao ni
Furthermore he ADV NEG know you ill especially come see you

想 来 一 定 是 找 麝 月 来 说 话。

xiang lai yi ding shi zhao Sheyue lai shuohua
think LAI must COP find Sheyue LAI talk

Furthermore, he doesn't know you're ill and yet has come to see you. He must be here to find Sheyue for a chat. (HLM Chapter 52)

(39) 大观园 中 收拾 出 缀 锦 阁 并 嘉 荫 堂
daguanyuan zhong shoushi chu cuijinge bing jiayintang
Daguanyuan LOC tidy LOC Cuijinge and Jiayintang

等 几 处 大 地 方 来 作 退 居。

deng ji chu da defang LAI zuo tuiju
etc. few CL big places LAI as retirement residence

To tidy up a few large compounds such as Cuijinge and Jiayintang in Daguanyuan as residences for retirement. (HLM Chapter 71)

In the above examples, LAI is syntactically affiliated to the verb following it. This [LAI + VP₂] unit then forms a serial verb construction with VP₁. Semantically speaking, LAI in this structure represents neither the spatial movement of an entity nor its direction of motion. It indicates that the action denoted by VP₂ is the motive of the action denoted by V₁. In (35) for instance, the action 劝慰 *quanwei* 'to console (or coax)' is the motive of the action 打叠起千百样的款语温言 *da die qi qian bai yabng de kuangyu wen yan* 'to use all sorts of blandishments and kind words'. In (36), the action 照 *zhao* 'to light up' is the motive for the action 秉灯 *bing deng* 'to hold the lamp'. In these constructions, LAI loses its autonomous grammatical position and becomes a linking element between two action verbs. The grammatical function of LAI in this

sense is similar to the prepositional use of ‘to’ in English. See the translation in (35), reproduced as (40) below (Yang and Yang 1999: 557):

(40) [Baoyu] knew it would be hard to pacify her and was prepared *to* coax her with all sorts of blandishments and kind words.

In other words, LAI has developed a grammatical meaning in the sense of the English ‘to’. In grammaticalization, semantic change usually develops from a lexical (less grammatical) to a (more) grammatical status, such that the grammatical and lexical meanings of a morpheme are inversely related. As the grammatical meaning of LAI develops, its lexical meaning clearly weakens. This can be proven by the fact that when LAI is omitted from the examples (34) to (38), the primary sense of each sentence is still kept intact by the serial verb construction “V₁ + V₂”. For instance, 找麝月来说话 *zhao Sheyue LAI shuo hua* is basically no different from 找麝月说话 *zhao Sheyue shuo hua*.

However, LAI has not fully become a grammatical marker in these instances, as it still retains its deictic meaning. This can be seen by the fact that when LAI is replaced by its antonym QU, the directionality of the verbal actions denoted by V₁ and V₂ is reversed:

(41) 他飛到倫敦來看望他母親。
 ta fei dao lundun LAI kanwang ta muqin
 he fly to London LAI visit he mother
 He flew to London to visit his mother.

(42) 他飛到倫敦去看望他母親。
 ta fei dao lundun QU kanwang ta muqin
 he fly to London QU visit he mother
 He flew to London to visit his mother.

In example (41), LAI indicates that the action 飛到倫敦看望他母親 *fei dao lundun kanwang ta muqin* ‘flew to London to visit his mother’ is directed toward the location of the speaker.

Conversely, QU in example (42) indicates that the same action is directed away from the location of the speaker. This demonstrates that LAI does not possess a purely grammatical sense in the above construction.

Therefore, in a serial verb construction consisting of two [+active] verbs, LAI attaches itself either to its preceding or following verb to form a “V₁ + LAI” or “LAI + V₂” syntactic unit. We further hypothesize that this phenomenon of reanalysis is responsible for the formation of some of the fixed-form expressions in Chinese involving stative verbs, such as ‘say’, ‘see’ and ‘think’:

V + 來(LAI)	來 (LAI) + V
說來話長 shuolai huachang speak LAI word long	換個角度來說 huan ge jiaodu laishuo change angle LAI speak
表面上看來 biaomianshang kanlai surface aspect look LAI	我們來看今天的主題 women laikan jintian de zhuti we LAI look today POSS topic
想來你一定很愉快 xianglai ni yiding hen yukuai think LAI you certain very happy	來想想這個問題 lai xiangxiang zhege wenti LAI think-think this CL problem

In each of the above expressions, LAI combines with a [-active] verb to form a “V + LAI” or “LAI + V” compound, in which LAI basically acts as a prefix or suffix. Here it is clear that LAI has lost its lexical meaning and has become a grammatical entity. This might have been the result of the reanalysis process undergone by LAI in serial verb constructions. We have seen earlier how LAI attaches itself to either V₁ or V₂ in such constructions, where both V₁ and V₂ are [+active] verbs. This may be analogically extended to the grammatical relationship between LAI and a [-active] verb. Whether preverbally or postverbally, LAI can combine with certain [-active] verbs to form invertible compounds such as 說來 LAI *shuo* \ 來說 *shuo* LAI, 看來 *kan* LAI \

來看 LAI *kan*, 想來 *xiang* LAI \ 來想想 LAI *xiangxiang*, etc. Our hypothesis states that as [-active] verbs do not involve a physical action, they may motivate a further weakening of LAI toward the direction of full grammaticalization in “LAI + V” or “V + LAI” compounds.

In summary, the semantic behaviour of LAI in serial verb constructions can be observed under two situations. In the first situation, LAI combines with one main verb either preceding or following it, where it loses grammatical features prototypically associated with verbs, namely, combinability with aspect markers and reduplication. In a preverbal position, LAI assumes a prepositional function introducing the location and orientation of the main action. In a postverbal position, LAI becomes a resultative element after a verbal morpheme indicating the direction of motion with respect to the speaker or discourse referent. The syntactic change of LAI also motivates its semantic change towards a function word. Specifically, when LAI acts as a secondary verb with respect to a main verb, its deictic feature becomes the more prominent feature vis-à-vis its motional feature. In other words, in a serial verb construction, LAI commonly denotes the direction/orientation of a main action with respect to the speaker or a discourse referent rather than an independent spatial movement.

In the second situation, LAI enters a serial verb construction involving two motional verbs to form a complex construction. In this case, LAI undergoes syntactic reanalysis by forming a grammatical unit with either its preceding or following verb. In both cases, LAI loses its independent syntactic status, which leads to a weakening of its verbal feature, changing it semantically in the direction of a grammatical marker.

4. The emergence of LAI as a grammatical marker and its cognitive basis

Using the diachronic framework postulated in Xing (2003), it may be deduced that LAI developed from an active verb into a deictic verb as it enters serial verb constructions. When LAI

further loses its deictic feature, it develops into a full grammatical morpheme. According to Xing (2003:108), the syntactic structure of functionalization is as follows:

- (F) Case 1: (NP₁) + V + (NP₂) + G (+NP₃)
 Case 2: (NP₁) + G + (NP₂) + V (+NP₃)

G stands for ‘grammatical morpheme’, which can be replaced by LAI in our case in point. Our data shows that the grammatical meaning of LAI is more commonly associated with Case 1 above, where LAI follows a main verb. It is significant that the main verb here is usually an [-active] verb, such as a perception or emotional verb. This corresponds to the fact that LAI also loses the semantic features associated with [+active] verbs (motional and deictic features) in such constructions. The following examples illustrate this point:

(43) 因此我就想起孀子來。

yinci wo jiu xiang QI shenzi LAI
 thus I ADV think QI auntie LAI
 I thus thought of Auntie. (HLM Chapter 24)

(44) 寶玉站著，只管發起呆來。

baoyu zhan zhe zhiguan fa QI dai LAI
 Baoyu stand-EXP just start QI daze LAI
 Baoyu stood in a daze (HLM Chapter 32)

(45) 提起這個話來，真真的寶姑娘叫人敬重...

ti QI zhege hua LAI zhenzhende baoguniang jiao ren jingzhong
 mention this CL matter LAI really Bao lady Pass. people respect
 Speaking of this matter, one can only but respect Baochai. (HLM Chapter 32)

In each of the sentences above, LAI cannot be replaced with its antonym QU to indicate a reverse direction of motion. For instance, it is ungrammatical to say *想起孀子去, 發起呆去 **xiang qi shenzi* QU, *fa qi dai* QU and *提起這個話去 **tiqi zhege hua* QU, etc. In addition, LAI can be omitted from the above expressions without violating their grammaticality or changing their meanings, that is, we can say 想起孀子(Ø) *xiang qi shenzi*, 發起呆(Ø) *fa qi dai*,

and 提起這個話(Ø) *ti qi zhege hua*, etc. This is evidence that LAI has lost the lexical semantics of a proper verb, and has evolved a grammatical meaning as a result of functionalization. As a result of that, the construction in which LAI is in ceases to be a serial verb construction, but has instead become a simple V-O construction. But what exactly is the grammatical meaning of LAI?

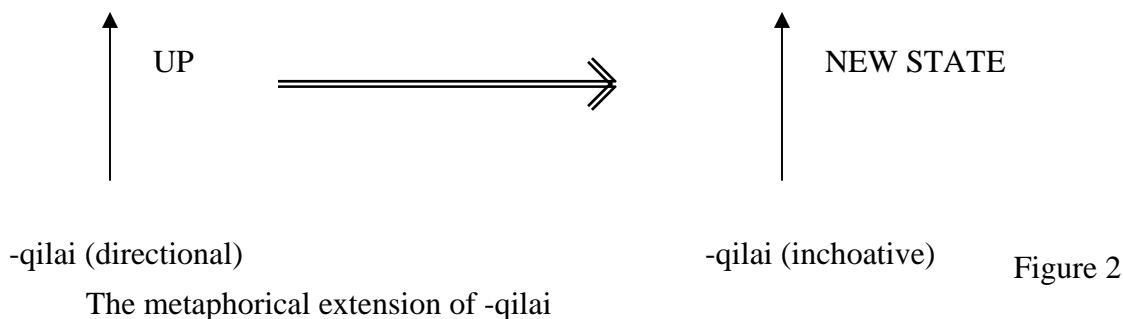
To answer this question, we must first explain the following observation: in examples (43) through (45), LAI does not stand alone in combination with its preceding main verb. There is one other grammatical morpheme that lies in between the main verb and LAI, QI 起 (literally ‘up’) or CHU 出 (literally ‘out’). This morpheme cannot be omitted from the expression without resulting in ungrammaticality. For instance, 想(Ø) 孀子來 *xiang shenzi LAI*, 發(Ø) 呆來 *fa dai LAI*, and 提(Ø) 這個話來 *ti zhege hua LAI*, etc are unacceptable to the native speaker. Hence, we see that LAI as a grammatical morpheme occurs in the following two constructions:

(G) Case 1: “V + QI + NP + LAI” (examples 43 to 47)

Case 2: “V + CHU + NP + LAI” (examples 48 to 52)

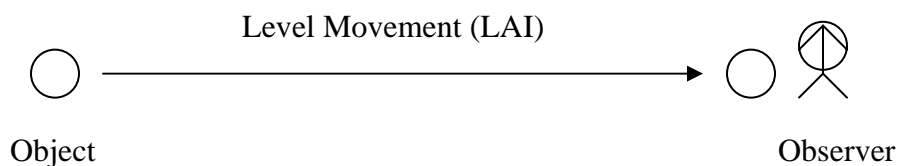
Incidentally, 起來 QILAI and 出來 CHULAI form suffixal compounds with specific grammatical meanings in Chinese (although they can also serve as verbal compounds with a motional meaning). The grammatical meaning of LAI in the above constructions is therefore closely related to that of the compounds QILAI and CHULAI.

According to Huang and Chang (1996), QILAI can represent three meanings: directional, inchoative and completive. Here we consider the inchoative meaning, which denotes a situation where a new event begins and continues. This can be accounted for by ‘invoking the metaphorical extension of the spatial movement to the temporal PATH’ (Ibid. 203-204):



According to Huang and Chang, the vertical spatial relation denoted by QILAI can be metaphorically extended to mean the process of starting a NEW STATE, culminating in the conceptual metaphor *TO START (A NEW STATE) IS TO MOVE UP* (Ibid. p204).

Apparently, Huang and Chang's analysis regards QILAI as a single entity. However, a closer observation shows that the direction UP is morphemically associated only with QI, which literally means 'to rise'. The morpheme LAI, however, is not semantically linked to UP. Spatially speaking, the verb QI denotes an upward movement, while the verb LAI denotes a level movement, as shown in the figure below:



Since LAI has a different spatial schema from QI, its metaphorical meaning should logically be different. If the directionality of QI is metaphorically extended to denote the start of a new state, that of LAI is metaphorically extended to mean that the occurrence of that state has an impact on a particular referent. The cognitive basis of this metaphorical extension lies in our common spatial experience as represented in Figure 3, assuming that an object moves along a level plane in the direction of an observer. From the latter's viewpoint, the moving object is seen to embody the action LAI. As the object arrives at the position of the observer, it comes into physical

contact with the observer. When this spatial schema is mapped onto the abstract domain of “states”, LAI can be metaphorically extended to mean that a particular state (represented by the moving object) has a certain effect upon an observer (represented by the contact of the moving object with the observer). As the “state” in question (in examples (43) through (52_)) is an abstract rather than a physical one (as the main verbs are perception or emotion verbs), the effect it has on the observer is also an abstract one. Thus the semantic extension of LAI manifests the conceptual mapping from a physical, spatial domain to an abstract, emotional domain.

Hence within the compound QILAI, each morpheme has its own grammatical meaning. For instance, in the expression 唬起我來 *hu qi wo* LAI ‘to scare me’ in (46), QI denotes the start of the action 唬 *hu* ‘to scare’, while LAI indicates that the state of being ‘scared’ is being effected upon the object *wo*. Similarly, in the expression 怕起這些來 *pa qi zhe xie* LAI ‘become afraid of these’ in (47), QI indicates that the start of the state of 怕 *pa* ‘being afraid’, while LAI indicates that this state is being felt by the (zero) subject. Therefore, in the construction “V + QI + NP + LAI”, QI indicates the start of a new state, while LAI indicates that this new state has an effect upon a particular referent.

The same line of analysis can be used for the construction “V + CHU + NP + LAI”. Spatially speaking, CHU indicates a level spatial movement of an entity from inside a bounded region to outside. This spatial schema (a combination of the Container and Source-Path-Goal schema) can be metaphorically extended to the abstract domain of ‘states’, generating two inter-related metaphorical concepts (Yu 1998):

- A. STATES ARE LOCATIONS (BOUNDED REGIONS IN SPACE)
- B. CHANGE OF STATES IS CHANGE OF LOCATIONS.

These metaphorical concepts contain the following specific mappings:

SOURCE DOMAIN		TARGET DOMAIN
Space	→	Reasoning about states
Locations	→	States
Movement	→	Change

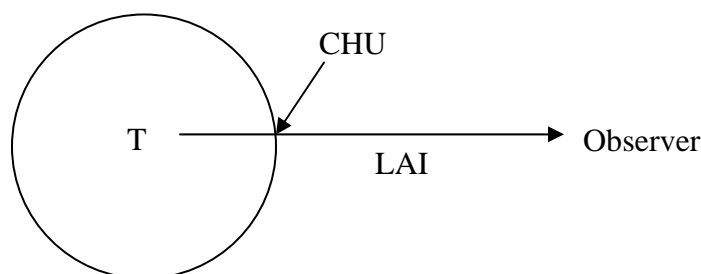


Figure 4 The spatial schema of CHU

Figure 4 represents the combined version of the basic schema Container and the Source-Path-Goal schema. The state of CHU is centered at the perimeter of the bounded region, where LAI represents the extended portion of the PATH schema heading towards a particular observer.

The grammatical function of CHULAI is similar to that of QILAI in the sense that it indicates the emergence of a new state of event (Lü 124). Once again, CHU and LAI is treated here as one single entity, when in fact they each have their own grammatical meaning. While the spatial schema of CHU (change of location) is metaphorically extended to mean the start of a new state, the level movement indicated by LAI indicates the occurrence of this new state upon a particular observer. For instance, in the expression 體貼出手帕子的意思來 *titie chu shoupazi de yisi* LAI ‘to fathom the meaning of the handkerchief’ in (48), CHU indicates the start of the action or state of 體貼 *titie* ‘fathom’, while LAI indicates that the new mental state has dawned upon the subject, Lin Daiyu. Similarly, in the expression 終究要生出事來 *zhongjiu yao sheng chu shi* LAI ‘problems will eventually occur’ in (50), CHU indicates that the start of the action of

生事 *sheng shi* ‘to generate problems’, whereas LAI indicates that this action is happening for the speaker.

In summary, the grammatical meaning of LAI lies in its indication of the occurrence of a new state of event (metaphorically represented by another grammatical entity QI or CHU) on a particular referent. The semantic evolution of LAI from a motional and deictic verb/coverb to a full grammatical marker is a result of metaphorical extension. Our analysis demonstrates that LAI does in fact function as a grammatical marker in Mandarin Chinese and its semantic change follows the process of grammaticalization that Mandarin verbs in general undergo. It also shows that grammaticalization does not only occur within a linguistic system, but is also intimately tied to cognitive structures.

5. Implications of research and questions for further study

The morpheme LAI has myriad uses in Mandarin Chinese. However, its status as a grammatical entity has not been fully recognized in current literature. This contribution aims to prove that the semantic behaviour of LAI changes as it assumes different grammatical positions in serial verb constructions. A synchronic analysis of Chinese data shows that LAI must have undergone the three stages of syntactic reanalysis postulated in Xing (2003), namely, serialization, decentralization and functionalization. Throughout these processes, LAI is gradually decategorized from a motion verb, coverb / resultative complement, verbal link and finally into a grammatical marker. Assuming unidirectionality in any grammaticalization process, it is argued that the semantic change of LAI must have followed the order: motional feature → deictic feature → grammatical feature.

Importantly, the grammatical meaning of LAI has emerged through the process of metaphorical extension from physical to abstract domains of experience, confirming the theory

that cognitive processes are the motivating forces for grammaticalization. This also conforms to the first semantic-pragmatic tendency characterizing the path of semantic change in Traugott (1989), which states that meanings based in the external described situation (such as motion and direction) change to meanings based in the internal (evaluative/perceptual/cognitive) described situation.

This paper argues for the establishment of Mandarin LAI as a grammatical entity in its own right. However, there are certain other grammatical functions of LAI which have not been considered in this paper, such as the use of LAI as a numeral approximation in 十來人 *shi LAI ren* (ten LAI person) ‘approximately ten people’, as a particle 做什麼來著 *zuo shenmo LAI zhe* (do what LAI conjunction) ‘what are [you] up to?’, and 一來..., 二來...*yi LAI er LAI* (one LAI, two LAI) ‘firstly..., secondly...’, etc. How the semantic features of LAI in these categories are related to its source meaning is a topic that deserves a study on its own.

Notes

¹ By the term ‘panchronic process’, Heine et al. (1991:261) refers to the view that grammaticalization ‘presents both a diachronic perspective, since it involves change and a synchronic perspective, since it implies variation that can be described as a system without reference to time.’

² Xing (2003) distinguishes between two types of source meaning: etymological source meaning and grammatical source meaning. For many cases of grammaticalization, the two types of source meaning are the same or similar. However, this is not the case for LAI. The etymological source meaning of LAI was ‘wheat’. The graph was then used to represent the meaning ‘to come’ (a process named phonetic loans or *jia jie* 假借, one of the six ways of Chinese character formation or *liu shu* 六書), from which other related meanings emerged. ‘To come’ is therefore the grammatical source meaning, of LAI.

³ Some of the following examples are my own.

⁴ In Standard English, ‘Have you *been* to Singapore’ would be more acceptable.

⁵ According to Shi (2000), each aspect marker has a specific grammatical meaning indicating the temporal aspect of a verbal action, with *le* indicating ‘realization’, *zhe* indicating ‘duration’ and *guo* indicating ‘completion’. Verbal reduplication, on the other hand, has the grammatical function of quantifying the temporal span of an action, usually indicating a shortened duration.

⁶ HLM is the abbreviation of *Hongloumeng* ‘*Dream of the Red Mansions*’, a masterpiece in Qing vernacular fiction authored by Cao Xueqin. Unless otherwise stated, the English translations are mine.

References

- Bybee, John, Revere Perkins, and William Pagliuca. 1994. *The Evolution of Grammar*. Chicago: University of Chicago Press.
- Cao, Xueqin. *Hongloumeng* (A Dream of the Red Mansions). Beijing: Beijing shifan daxue chubanshe, 1992.
- Harris, Alice C. and Lyle Campbell. 1995. *Historical Syntax in Cross-linguistic Perspective*. Cambridge: Cambridge University Press.
- Heine, Bernd, Ulrike Claudi and Friederike Hunnemyer. 1991. *Grammaticalization: A Conceptual Framework*. Chicago: University of Chicago Press.
- Heine, Bernd. 1997. *Possession: Cognitive Sources, Forces and Grammaticalization*. Cambridge: Cambridge University Press.
- Hopper, Paul J. On some principles of grammaticalization. In Elizabeth C. Traugott and Bernd Heine (eds.) *Approaches to Grammaticalization*, Vol 1. Amsterdam and Philadelphia: John Benjamins, 17-35.
- Hopper, Paul J. and Sandra A. Thompson. 1984. The discourse basis for lexical categories in universal grammar. *Language* 60: 703-52.
- Hopper, Paul J., and Elizabeth C. Traugott. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.
- Huang Chu-Ren and Chang Shen-Ming. 1996. Metaphor, Metaphorical Extension and Grammaticalization: A Study of Mandarin Chinese –*qilai*. In Adele E. Goldberg (ed.) *Conceptual Structure, discourse and language*. Stanford; California: CSLI Publications, 1996.
- Johnson, Mark. 1987. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: University of Chicago Press.
- Lai Hwei-ling. 2003. The Semantic Extension of Hakka LAU. *Language and Linguistics* 4.3: 533-561.
- Lakoff, George and Mark Johnson. 1980. *Metaphors We Live By*. Chicago: Chicago University Press.
- Langacker, Ronald. 2003. Constructional Integration, Grammaticization, and Serial Verb Construction. *Language and Linguistics* 4.2: 251-278.
- Lü Shuxiang. 1984. *Xiandai Hanyu Babai Ci*. Beijing: Shangwu yinshuguan.

- Shi Yuzhi. 2000. *Yufa de renzhi yuyi jichu*. Nanchang: Jiangxi chubanshe.
- Shi Yuzhi. 2001. *Yufa de xingshi he liju*. Nanchang: Jiangxi chubanshe.
- Traugott, Elizabeth C. 1989. On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language* 65: 31-55.
- Xing Zhiqun, Janet. 2003. Grammaticalization of Verbs in Mandarin Chinese. *Journal of Chinese Linguistics*. Vol 31:1: 101-143.
- Yang Xianyi and Gladys Yang (trans). 1999. *A Dream of Red Mansions* (written by Cao Xueqin and Gao E). Beijing: Foreign Language Press.
- Yu Ning. *The Contemporary Theory of Metaphor: A Perspective from Chinese*. Amsterdam; Philadelphia: John Benjamins, 1998.