

A Formal Semantic Analysis of the Grammaticalization of the Durative Aspect Marker *zài* in Chinese



THE GEORGE
WASHINGTON
UNIVERSITY
WASHINGTON, DC

Hongyuan Dong

July 31, 2017

ICHL23, UT San Antonio

Introduction

- Bybee, Perkins & Pagliuca (1994): Location words are one major source for progressive/continuous aspect markers.

A common grammaticalization path
(or a recurrent pattern à la Blevins 2004):

Locative>>Progressive/Continuous

Blevins, Juliette. 2004. Evolutionary phonology: The emergence of sound patterns. Cambridge University Press.

Introduction

Goals of this current research.

- Subtypes: what kind of locative relations?
 - Linear locative relations, e.g. “at”
 - Three-dimensional relations, e.g. “inside”
- Why locative >> progressive/continuous?
 - Components or stages?
 - Theoretical connections?
 - Formal characterizations?

Introduction

- Data: Historical grammar data from Mandarin Chinese.
 - Mandarin Chinese is not included in the dataset of Bybee et al. 1994. Cantonese data are included. But in terms of aspectual markers, Mandarin Chinese and Cantonese are very different.
 - There are at least three types of locative>>progressive/continuous grammaticalization paths in Mandarin Chinese.

Mandarin Chinese data

Three historical sources

- Verb/Preposition zài 在 “be somewhere” >> Modern Chinese progressive/durative marker zài
- Verb zài 在 “exist” >> sentence-final continuous marker [not retained in Modern Chinese, but retained in certain southern dialects.]
- Location noun: lǐ 裏 “inside” >> Modern Chinese sentence-final continuous marker -ne

The original meaning of zài

5

- According to the earliest character dictionary dated to 100BC.
 - The verb zài means to “exist”. (《說文解字》“在：存也。”)
 - Exist>>be somewhere>>be at

(cf. the verb wa7 in St'át'imcets in Davis 1996, cited by Demirdache and Uribe-Etxebarria 2000, p. 184, note 11.)

The verb zài

Example (1) is from around 1200BC; example (2) is from late 4th century BC.

(1) 王在兹
 Wáng zài zī
 King exist/“be at” here
 “The king is here.”

(2) 公在乾侯
 Gōng zài Gānhóu
 Duke exist/“be at” Ganhou
 “The duke was at Ganhou.”

Sources (1) 甲骨文 cited by 于理想(2014) 浅析时间副词“在”的语法化; (2) 左傳 cited by 李慧(2014) 介词“在”的语法化

Verb or preposition

- However due to the syntax of Chinese, it is hard to determine when it became a prep.
- A serial verb construction is possible. The example is from The Analects (ca. 5th century BC)

子在川上曰

Zǐ zài chuān shàng yuē

Confucius “be at” river top say

“The Master standing by a stream, said: ...”

- [S Zǐ [VP [PP zài chuān shàng] yuē]]
- [S Zǐ [VP zài chuān shàng] [VP yuē]]

Verb or preposition

- But most researchers would say that *zài* can be indeed used as a preposition.
- Scholars' opinions on when the prepositional use was attested vary between ca. 1200BC and after 3rd century AD.

The preposition zài

- The following example is from about 1200BC

省在南廩

Xǐng zài nán lǐn

Examine at south granary

“To examine the situations at the southern granaries”

Source: 甲骨文 cited by 喻遂生(2002) 甲骨文“在”字介词用法例证

Aspect marker

- Verb/prep. zài used as progressive/durative.
- The following example is from ca. 1600AD.

眾人都在談笑

Zhòngrén dōu zài tán xiào

People all AT talk laugh

“People were all talking and laughing.”

Source: 《平妖传》 cited by 冯雪冬 (2009). 时间副词“在”语法化历程考察. 宜宾学院学报 (1):109.

Previous research

LocVerb/Prep >> ContinuousAsp >> ProgressiveAsp

- One view is locative directly transferred to the event viewed as a location. (e.g. Zhang 2015)
- Another view is that the locative is transferred to the temporal domain via combination with the aspectual adverb zhèng (e.g. Feng 2009)
- However, no one explained the Continuous>>Progressive change

张爱玲 (2015). 汉语方所存在结构向进行体结构的语法化. 中南大学学报 (社会科学版) Vol. 21, No. 5.

冯雪冬 (2009). 时间副词“在”语法化历程考察. 宜宾学院学报 (1):109.

My proposal

- Two steps needed:
 - Locative metaphor: Locative>>Eventive
 - Domain narrowing: Eventive>>Temporal
- Locative metaphor creates the condition for reanalysis leading to temporal
- Continuous>>Progressive because of a competing pattern with continuous -ne

(1) Locative >> Eventive

- Events are regarded as linear objects of locations, with boundaries, participants, subparts, etc.
- The verb/prep *zài* is a generic, non-specific locative, without referring to the three-dimensional features of an object.



(1) Locative >> Eventive

- According to Zhang (2015), “zài + loc” is the origin of the aspectual zài。
- The following example dates to 1270AD.
(Source: 朱子語類)

這物事在這裡流轉

Zhè wùshì zài zhèlǐ liúzhuan

This thing at here move

“This thing has been moving in here.”

(1) Locative >> Eventive

- The location “here” is not quite a concrete location, but rather a placeholder.
- Such a placeholder location can be further omitted, creating “zài+VP”

Zhè wùshì zài zhèlǐ liúzhuan → Zhè wùshì zài liúzhuan

This thing at here move This thing at revolve

(1) Locative >> Eventive

- Old English:

Ac gyrstandæg ic wæs on huntunge.

But yesterday I was on/at hunting

“But yesterday I was hunting.”

Source: Elness, J. (1994). On the progression of the progressive in early Modern English. *ICAME journal*, 18(5).

- Here to simplify my argument about Chinese data, I'll use the follow pseudo-example:

John zài here read “John is/was here reading”

(1) Locative >> Eventive

- Structurally:

[_S John [_{VP} [_{PP} zài here] read]] →

[_S John [_{VP} [_V zài] read]]

- Semantically:

$\exists e[\mathbf{READING}(e) \ \& \ \mathbf{AGENT}(e, j) \ \& \ \mathbf{Loc}(e, CLoc)] \rightarrow$

$\exists s. \exists e[\mathbf{EXISTING}(s) \ \& \ \mathbf{READING}(e) \ \& \ \mathbf{AGENT}(e, j) \ \& \ \mathbf{Loc}(s, e)]$

[CLoc: current location]

- However, this step **does not** create an aspect marker. Thus there needs another step.

(2) Eventive >> Temporal

- Time intervals are regarded as empty events with boundaries, subparts, etc. (E.g. Bonomi, A. 1997. Aspect, quantification and when-clauses in Italian.)
- Time intervals are a subset of events.
- Thus the second step would restrict the domain of the location to time intervals.



Eventive >> Temporal

- According to Feng (2009), the grammaticalization of zài is related to the aspectual adverb zhèng 正, which was already used in Classical Chinese.
- The following example is from ca. 100BC

我思舜，正鬱陶

Wǒ sī Shùn, zhèng yùtáo

I miss Shun right-now moody

“I was missing Emperor Shun and was at that moment moody.”

Source: 《史記》

Eventive >> Temporal

- Thus "zhèng" can be regarded as having the "continuous" aspect semantics.

[Wǒ zhèng yùtáo], schematized as [I right-now moody]

$$\exists s. \exists t [\mathbf{MOODY}(s) \ \& \ \mathbf{EXP}(s, SP) \ \& \ \mathbf{AT}(s, t) \ \& \ ST \subseteq t]$$

Exp: experiencer of the state

AT: time interval of event/state is at t

SP: speaker

ST: speech time

Eventive >> Temporal

- Feng (2009) also argues “zhèngzài” together to indicate the aspect should be at least at the same time of “zài” alone, if not earlier.
- The following examples are from around 1600AD when “zài” alone as an aspect marker is attested. (source 《平妖傳》)

(1) 正在說話

Zhèng zài shuōhuà

Right-now AT speak

“He was speaking.”

(2) 正在寒冷

Zhèng zài hánlěng

Right-now AT cold

“He was cold (at the moment.)”

Eventive>>Temporal

- If the “zhèng” is omitted, then the aspectual meaning will be transferred to “zài”.
- Structurally:

Step 1: Locative>>Eventive

[_S John [_{VP} [_{ADV} zhèng] [_{VP} [_{PP} zài here] read]]] →

[_S John [_{VP} [_{ADV} zhèng] [_{VP} [_V zài] read]]] →

Step 2: Eventive>>Temporal

[_S John [_{VP} [_{ADV} zhèngzài] [_V read]]] →

[_S John [_{VP} [_{ADV} zài] [_V read]]]

Eventive >> Temporal

- Semantically:
- From Step 1 to Step 2:

$\exists e[\mathbf{READING}(e) \ \& \ \mathbf{AGENT}(e, j) \ \& \ \mathbf{Loc}(e, CLoc)] \rightarrow$

$\exists s. \exists e[\mathbf{EXISTING}(s) \ \& \ \mathbf{READING}(e) \ \& \ \mathbf{AGENT}(e, j) \ \& \ \mathbf{Loc}(s, e)] \rightarrow$

$\exists e. \exists t[\mathbf{READING}(e) \ \& \ \mathbf{AGENT}(e, j) \ \& \ \mathbf{AT}(e, t) \ \& \ ST \subseteq t]$

Eventive >> Temporal

- Semantically:
- Between the two stages in Step 2:
There is no semantic change, but the semantic function of aspect corresponds to two structures.

[_S John [_{VP} zhèng zài [_V read]]] → [_S John [_{VP} zài [_V read]]]

Continuous Aspect Meaning

$\exists e. \exists t [\text{READING}(e) \ \& \ \text{AGENT}(e, j) \ \& \ \text{AT}(e, t) \ \& \ ST \subseteq t]$

Summary

- Two steps:
- First step creates condition for the reanalysis in the second step.
- The omission without change of meaning transfers the aspect meaning to zài

Two other types

- Sentence-final continuous –zài
- Sentence-final continuous –li>>-ne

Existential zài

- The following example is from 1004AD

十年後要個人下茶也無在

Shí nián hòu yào gè rén xià chá yě wú zài

Ten year after need CL person make tea also not exist

“In ten years, when you want someone to have tea with, there won't be one.”

Source: 《景德傳燈錄》 cited by 呂淑湘(1941) 《釋景德傳燈錄》 中在、著二助詞

Existential zài >> Continuous

28

- The following example is also from 1004AD

幾人於此茫然在

Jǐ rén yú cǐ máng-rán zài

A few person at here confused exist

A few people were confused there

Source: 《景德傳燈錄》 cited by 呂淑湘(1941) 《釋景德傳燈錄》 中在、著二助詞

Existential zài >> Continuous

29

- The following example is also from 1004AD

大德正鬧在

Dàdé zhèng nào zài

Da-de right-now busy exist

“Dade is right now busy.”

Source: 《景德傳燈錄》 cited by 呂淑湘(1941) 《釋景德傳燈錄》 中在、著二助詞

Existential zài >> Continuous

30

- [s [SUBJ Dàdé zhèng nào] [VP zài]]
- [s [SUBJ Da-de right-now busy] [VP exist]]
- “The state of De-de right now being busy exists”
- $\exists s. \exists t [\mathbf{BUSY}(s) \ \& \ \mathbf{EXP}(s, d) \ \& \ \mathbf{AT}(s, t) \ \& \ ST \subseteq t]$
[Exp: experiencer ST: speech time]

Here again, the omission of zhèng would transfer the aspectual meaning to zài

Existential zài

- Reanalysis and semantic transfer
 - [s [SUBJ Da-de right-now busy] [VP exist]] →
 - [s [SUBJ Da-de] [AP right-now busy zài]] →
 - [s [SUBJ Da-de] [AP busy zài]]
- $\exists s. \underline{\exists t} [\mathbf{BUSY}(s) \ \& \ \mathbf{EXP}(s, d) \ \& \ \underline{\mathbf{AT}(s, t)} \ \& \ ST \subseteq t]$

The underlined components for “right-now” is transferred to “zài”.

Continuous -li>>-ne

- The following example is from ca. 1300AD, but can be attested as early as ca. 900AD.

正在那裏吃酒哩

Zhèng zài nàlǐ chī jiǔ li.

Right-now at there eat liquor ASP<“inside”
(He) is right there drinking.

Locative noun lǐ>> -li >> -ne

Asp marker doubling –zàilǐ

33

- The following example is from ca. 1100AD

忒早在裏

Tè zǎo zài lǐ

Too early exist inside

It was too early.

(source: 上蔡语录)

- Some scholars, e.g. Lü(1941) thought it literally meant “on the inside”>>inside>>continuous
- But I think semantically it makes more sense to say it is doubling of the same continuous marker –zài and -lǐ

Continuous>>Progressive

34

- The earlier examples of pre-verbal zài is continuous.
- In competition with both the sentence final – zài and the –li, the pre-verbal zài became a progressive marker.
- It still retains some of its continuous uses in zài..ne structure.

thank you!

Contact me at hdong@gwu.edu