A Cognitive perspective in the grammaticalization of the experiential aspect –*guo* in Chinese

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This paper aims to explore the cognitive motivations in the grammaticalization of the experiential marker –*guo* in Chinese. By tracing the usages of –*guo* in various stages of Chinese and detailing its cognitive schemas, this paper suggests that schema transformation and metaphor are crucial cognitive conventions that triggered the grammaticalization of –*guo*. This development exemplifies a cognition motivated grammaticalization.

1 Introduction to theoretical background

"Aspects are different ways of viewing the internal temporal constituency of a situation".[1] They are realized by specific morphemes in inflectional languages, but aspect markers in Chinese are not based on inflectional morphology. Aspect markers, like *zai-, -guo, -le, -qilai* and –*zhe* are treated as marking progressive, experiential, perfective, inchoative and durative aspects, respectively. However, these aspect markers are similar to morphological devices, which motivated Chinese linguists to study them, because they may build a connection between these two types of languages, since there may be some underlying similarities among languages.

Experiential aspect is a specific aspect which indicates that a given situation has held at least once during some time in the past leading up to the present. (2)[2] English makes an overt distinction between *Bill has been to America* and *Bill has gone to America*. The first sentence indicates an experience in the past. In Chinese, toneless –*guo* marks experiential aspect. *-Guo* is originally a motion verb meaning "to go across', and developed gradually into a grammaticalized aspect marker that expresses experience. Before the emergence of –*guo* as an experiential marker, Chinese used specified lexis to express experience. For example, "曾，嘗"(ceng, chang, once, ever). In contemporary Chinese, "曾" is only used as an adverb before the experiential –*guo*. For example,

(1)　　wo ceng qu- *guo* xianggang
　　　　I ever go- experiential marker Hongkong
　　　　I have been to Hongkong before.

Experiential –*guo* also marks perfective aspect which indicates an action is finished or completed, as in

(2)   wo chi- *guo* fan qu zhao ni
         I eat -perfective marker breakfast go see you
         After finishing breakfast, I will go to see you.

Most analyses of –*guo* in Chinese studies focus on its synchronic grammatical functions (Chu, 1998).   In this paper, I try to explore the historical development of –*guo* in a cognitive perspective. Cognitive approach is concerned with how cognitive resources are mapped to language structures. One major factor which motivates the grammaticalization of a lexical item is metaphorical/metonymic transfer of semantic image/schema. The course of grammaticalization of –*guo* may uncover some similarities of the cognitive processes among languages.

2   The database

The data for my analysis cover the period from the archaic to the pre-modern Chinese. Below is a list of the sampled texts.

a)   Archaic Chinese; before 2nd-3rd A.D.
      Shang Shu 《尙書》
      Zhou Yi   《周易》
      Zuo Zhuan   《左傳》

b)   Pre-Middle Chinese; 2nd-3rd A.D.
      Shi Ji 《史記》

c)   Early Middle Chinese; 3rd-6th A.D.
      Sanguo Zhi 《三國志》
      Beiliang Yijing 《北涼譯經》

d)   Late Middle Chinese, 7th-13th A.D.
      Duohuang Bianwen 《敦煌變文》
      Zutang Ji 《阻唐集》
      Wuyuan Denghui 《五元燈會》
      Song Huaben 《宋話本》

e)   Pre-Modern Chinese, 14th -17th A.D.
      Sanguo Yanyi 《三國演義》
      Ernü Yingxiong Zhuan 《兒女英雄傳》

3   Grammaticalization of –*guo*: from a motion verb to an experiential marker

3.1 Outline

-*Guo* is originally a motion verb, meaning "to go across; to pass

through". In modern Chinese, this verbal function is still kept. For example,

(3)   *guo* jiang, *guo* malu
Cross river, cross road
Cross a river; cross a road.

      The development of –*guo* can be divided into three major stages regarding its grammatical function. Before Early Middle Chinese, -*guo* occurred more frequently as a verb, but it developed various meanings from its original meaning. In the second stage, that is, Early Middle Chinese (3rd-6th A.D.), -*guo* occurred in a verbal construction and became de-verbalized. It is suggested that the de-verbalized –*guo* emerged in Early Middle Chinese (Li and Shi, 1997). My findings in general support their claim. And in Tang Dynasty (618-907 A.D.), -*guo* became an aspect marker. Liu and Cao (1992) suggested that –*guo* became an aspect marker in Tang Dynasty，but they didn't explain what kind of marker –*guo* in this case was. My finding is that it is not until Song Dynasty (960-1279 A.D.) that –*guo* became an experiential marker.
      The uses of –*guo* mentioned above are shown below[3]:

a. **Motion verb:** Before Early Middle Chinese, -*guo* occurred more frequently as a verb, but it developed various meanings from its original meaning.

1. Cross (original meaning).

(4)   Min Shan- zhi- yang, zhi yu heng shan, *guo* jiu jiang, zhi yu fu qian yuan. (Shang Shu)
Min mountain- Possessive- south, arrive in Heng mountain, cross Jiujiang, arrive in Fuqianyuan
It crosses the south of Mountain Min and arrives in Mountain Heng. And it crosses Jiu jiang and arrives in Fuqianyuan.

2. Exceed; Go beyond.

(5)   Fanwei tian di- zhi- hua er bu *guo*, qucheng wan wu er bu yi,……. (Zhouyi)
Master heaven earth- possessive- change but not exceed, obey ten thousand things but not lose
The wise masters the changes of heaven and earth but never exceeds them and obey the rules of things as they actually are.

3. Pass.

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[3] - *Guo* has been extended to several other meanings before Early Middle Chinese; for example, "make a mistake, or a mistake", "censure", "to visit", etc. But since these meanings are not related to the experiential –*guo*, I didn't discuss them here.

(6)   Nian ji yi *guo* taiban- xi, ran xianke er liuzhi. (Chu Ci)
Age since already past half- particle, but not-be -discovered
and stay
My age has already past fifty, but I am still not discovered by
emperor and stay here in vain.

In modern Chinese, we have

(7)   Yu guo tian qing
Rain go over sky sunny
Rain past and it is sunny.

b.   **Complement:** During Early Middle Chinese (3rd-6th A.D.), *-guo*
occurred as a complement in a verbal construction and became
de-verbalized.

   1. Across

(8)   Fu guan haoqi, huo sui fei *guo*, yue shao xi jia,
yishi dang jing. (Dunhuang Bianwen)
Hold coffin wail, fire therefore fly across, spread burn west
house, in- a- sudden clear- away empty
He was holding the coffin and wailing. The fire flied across
and spread over to the west house. Everything was destroyed
in a sudden.

c.   **Perfective marker:** In Tang Dynasty (618-907 A.D.), *-guo* became
a perfective marker. For example,

(9)   Jiannu nian- de yi bu er shi juan, zuoye nian *-guo*.
(Dunhuang Bianwen)
Humble slave read- Perfective Marker one serial twenty
volume, last night read -Perfective Marker
I have read one book of twenty volumes. I finished them last
night.

d.   **Experiential marker:** During Song Dynasty (960-1279
A.D.), *–guo* became an experiential marker. For example,

(10) Ni kan na xin xifu, kou kuai ru dao, yi jia da xiao, zhu ge ge
dou shang- *guo* (Song Huaben)
You look that new daughter- in- law, mouth sharp like
knife, one family adult children, each each all hurt-
experiential marker
Look at that new daughter in law! Her mouth is as sharp as a
knife. All members of the family have been hurt by her one
by one.

The crucial stage for the grammaticalization of *–guo* is Early
Middle Chinese. The verbal construction of *–guo* played a very important
role in this period. But not every type of verb could occur in this pattern.

According to my findings, all verbs in this pattern are all motion verb. For example,

> 飛，走，跳，行，超，沖，經，穿，騰，突，踏
> fei, zou, tiao, xing, chao, chong, jing, chuang, teng, tu, ta
> fly, walk, jump, walk, surpass, rush, pass by, go through, jump, dash, tread on

As we all know, verbal construction is a frequent path for a verb in the construction to become grammaticalized. We can tell that –*guo* is not as verbal as its former verb, though we cannot say firmly that –*guo* in this pattern was completely de-verbalized. This pattern is still used in modern Chinese, but the type of its former verb was still limited to motion usage.

The verbal construction of –*guo* provided a context for the grammaticalization of –*guo*. It made possible for other types of verb to come into this pattern. Since motion verb –*guo* and aspect marker –*guo* are completely two grammatical categories, why did the motion –*guo* become a marker in Late Middle Chinese suddenly? I will try to answer this question in a cognitive perspective.

3.2 The verbal constructions of –*guo*: a context for the occurrence of perfective –*guo* and experiential –*guo*

Verbal constructions provide a context for the grammaticalization of –*guo* into an aspect marker. According to my data, the first occurrence of verbal serial of –*guo* is in *Shi Ji*. For example,

> (11) Xing *guo* Yimen, jian hou- sheng, ju kao suoyi yu si
> Qin jun zhuang. (Shiji)
> Walk across Yimen, meet Hou- Sheng (Polite
> addressing for man), all tell therefore want fight Qin
> army situation
> When he was walking across Yimen, he met Housheng and
> told him about his resolution to fight Qin's army.

The –*guo* in these verbal constructions may be analyzed as part of double verb pattern, which indicates two temporal actions, and the role of –*guo* in these structures might be interpreted as a full-meaning verb. But actually we cannot. Because the motion of –*guo* has already been included in the first verb. The de-verbalization of –*guo* happens here.

The frequencies of –*guo* in verbal constructions of perfective –*guo* and experiential –*guo* in the data are showed in detail table 1 in the appendix.

Verbal constructions of –*guo* increased tremendously in early period of Late Middle Chinese but decreased in the later period, and finally occurred rarely. Perfective –*guo* occurred first in Tang Dynasty. However, perfective –*guo* presented a tendency to increase until Yuan Dynasty and fell in number in the late pre-modern Chinese, when experiential –*guo* became frequently used. However, the perfective –guo is still relatively productive in modern Chinese.

The increased use of –*guo* in verbal constructions and the appearance of perfective –*guo* are simultaneous. This presents a supportive

proof that the former provided a contextual condition for the latter.

## 4　　A cognitive explanation for the grammaticalization of *–guo*

4. 1　Image schema of *–guo*

The extension of grammatical category is the main interest of cognitive linguistics. It is triggered by some motivated convention, such as metaphor, metonymy, image transformation, *etc*.
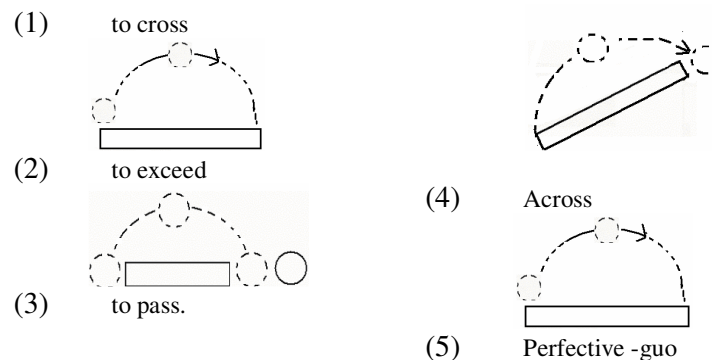
Metaphor is a mapping from source to target. The famous example is Lakoff's money and time (Lakoff & Johnson 1980). That is to say, we use our concept of money to re-construct time. For example, time can be consumed, borrowed, etc, like money.
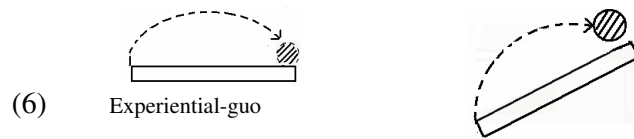
Metonymy is to use object for goal. For example, *hon* in Japanese is a measure word for long and thin object. But it can also be used to describe a contest between a Zen master and his student, in which each attempts to stump the other with Zen koans (long and thin). In this case, metonymy works (Lakoff, 1987). Zen koan represents the contest.

Image schema is the schematic of image, which is the representation of specific, embodied experiences. For example, when we think of "-*guo*" in its original meaning, an image comes into in our mind. This image is not as embodied as specific object. It is more abstract. In my paper, I will mainly use Dewell's (1994) schematic geometry, which specifies a land mark, a path, a starting point, an end-point, and a trajector. The symbols which represent the factors above are specified as below:

 : Trajector the trajector
 : Trajector in action
 : Final point of

 : Landmark
 Perspective from the starting point
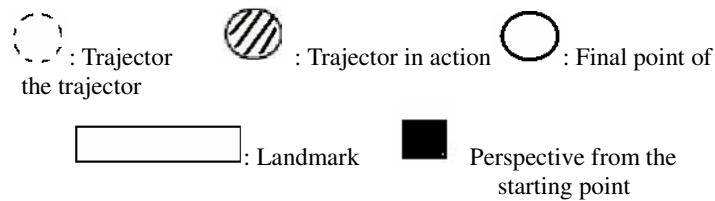
Let us take a look at the schema of all *–guo*s in its various meanings.

(1)　　to cross

(2)　　to exceed

(3)　　to pass.

(4)　　Across

(5)　　Perfective -guo

(6)   Experiential-guo

In Schema (cross), we see that a trajector is going across the land mark to a target. In Schema (exceed), we see the trajector goes beyond the supposed end-point. Schema (across) is similar to Schema (cross). In Schema (perfective), the trajector stops at the end-point of the landmark. These three schemas are viewed from an outsider perspective. The viewer is outside the whole picture. However, Schema (pass) and Schema (experiential) are viewed in an inside perspective. The viewer is standing in the starting-point and viewing the trajector. In Schema (pass), the trajector is leaving the starting-point and passing away. In Schema (experiential), the trajectory as a finished action stops somewhere.

4.2 Image schema transformation of –*guo*

An Image schema can be transformed into a new one (Lakoff, 1987). For example, the schema of path is transferred into an end-point. For example,

(12)   *Sam walked across the street. (Path)-- Sam lives across the street. (End-point)*

4.2.1   The moving of trajector: From Schema (cross) to Schema (exceed)

We see a connection among the schemas of –*guo*. The original schema of –*guo* is a trajector coming across a landmark. But when the trajector goes beyond the SUPPOSED end-point, it will be Schema (exceed). The Schema (across) is also a metaphor of Schema (cross). Its focus is on the action the verb represents, though trajector is still a concrete object.

4.2.2   Concrete to abstract and Path to End-point: From Schema (across) to Schema (perfective)

Schema (perfective) is a metaphor of Schema (across). But in this case, two metaphors work together here. The first is from concrete to abstract, in which the trajector is transformed from a concrete object to an abstract action. And the second is a transformation of path to end-point which is similar to the example above. That is to say, the action is FINISHED, starting from the starting point and stopping at the end-point.

4.2.3   Perspective shift: from Schema (cross) to Schema (pass) and from Schema (perfective) to Schema (experiential)

We may perceive a continuously moving object in different perspectives. If we stand out of the picture, we see an object is passing by. However, if we view the schema in an insider perspective, that is, view the

trajector from the starting-point, we see a trajector is leaving from the starting- point and even finally disappears in the landmark. See schema below,
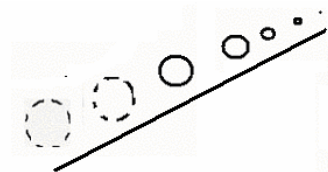
This is why Schema (pass) comes from Schema (cross). The shift happened early in archaic Chinese, for example,

(13)   Dachen bu qin, baixing bu ning, ze zhong jing bu cu,
       er fu gui yi *guo*- ye. (Liji)
       High- officer not close, common- people not
       peaceful, so loyalty and respect not enough, and
       richness and nobility already pass-particle
       If the high offices are not close and the majorities are
       not peaceful, loyalty and respect therefore will be
   scarce and richness and nobility will pass away.

This is also the reason why Schema (experiential) comes from Schema (perfective). When we watch the trajector and the landmark as a whole, we see an action stops at the end-point, which means that the action is finished. But if we watch the trajector from the starting –point, we see an action is passing away and stops in the end-point, which means an action has past and exists somewhere as an experience.

4.2.4   Space to Time: from starting-point to reference time.

The metaphor from space to time is very common in language development. People use the concept of space to understand time. For example, "前(qian, front, before)"and "後 (hou, back, after)" is related to spatial relationship, but it is used to describe the sequence of time. For example, "前天（qiantian, the day before yesterday）" and "後天（houtian, the day after tomorrow）". The coordinate in Schema (cross), Scheme (exceed), Scheme (across) and Scheme (perfective) is the landmark, and the starting-point is just a spatial point. However, the coordinate in Schema (pass) and Schema (experiential) is a starting-point, which defines the position of the trajector. It is still a spatial point in Schema (pass) but a time reference which is always the present time through a metaphor from space to time. Therefore, the trajector in Scheme (pass) is leaving the starting-point, not crossing the landmark and the position of the trajectory in Schema (experiential) is a past finished action which exists before the reference time since it has already left the starting-point.

4.3 The Grammaticalization chain of *–guo*

The grammaticalization chain of experiential –*guo* is shown below:
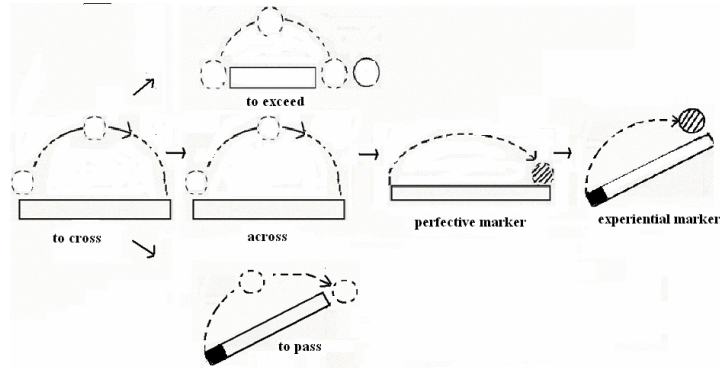
In Schema (cross), a trajector is coming across a landmark. When the trajector goes beyond the landmark supposed end-point, it will be Schema (exceed). If we perceive Schema (cross) from its starting-point, we see the trajector is leaving, which can be understood as Schema (pass). Schema (across) is the same as Schema (cross). Schema (perfective) is derived from Schema (across) by two metaphors, which are path to end-point and concrete to abstract. And if we perceive Schema (perfective) from the starting-point we see the trajector as a finished action and as an experience.

5   Conclusion

In summary, -*guo* is originally a motion verb meaning "go across", which is shaped as a trajectory crossing a landmark. If we perceive Schema (cross) from its starting-point in an insider perspective, we see that the trajector has left, which can be understood as Schema (pass) which indicates "to have passed". Schema (across) is the same as Schema (cross). Schema (perfective) is derived from Schema (across) by two metaphors, which are path to end-point and concrete to abstract. And if we perceive Schema (perfective) from the starting –point in an insider perspective, we see a finished action in the past existing as an experience.

Schema transformations in the historical development of –*guo* has also happened in lexical items of other languages as mentioned. Concrete to Abstract, Path to End-point, perspective- shift, and time to space are effectively used to explain the development of this particular language category. The grammaticalization of the experiential –*guo* demonstrates that we may use cognitive approaches to explain language phenomena. Our cognitive conceptualization somehow shapes the images of our languages.

Appendix Table 1

The frequencies of –*guo* in verbal constructions,
perfective –*guo* and experiential –*guo*

Time	Text	V-construction	Perfective -*guo*	Experienti al -*guo*
Pre-Middle (2nd-3rd A.D.)	Shi Ji	7	/	/
Early Middle (3rd-6th A.D.)	Sanguo Zhi	0	/	/
	Beiliang Yijing	0	/	/
Late Middle (7th-13th A.D.)	Dunhuang Bianwen	25	6	0
	Zutangji	12	2	0
	Wuyuan Denghui	26	14	2
	Song Huaben	5	7	2
Pre-Modern 14th -17th A.D.	Sanguo Yanyi	10	7	2
	Ernü Yingxiong Zhuan	1	19	52

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