Experientiality and Reversibility of the Aspectual Morpheme Guo in Mandarin Chinese: Temporal and Atemporal Perspectives

Chien-chou CHEN *

Abstract

This paper argues for the property of reversibility toward the interpretation of the aspectual guo in Mandarin Chinese. After thorough examination of studies on its meaning in the literature, I point out that traditional analyses stress too heavily on the experientiality, while recent studies—such as Hsiao (2003), Pan and Lee (2004), Lin (2007), and Wu (2008)—focus too much on the resultant state entailed by guo to derive its meaning of discontinuity. I propose that experientiality or discontinuity still serves as the inherent meaning of guo, yet the resultant state in many events further encodes an extended meaning of reversibility which relates the temporal/physical properties of a discontinued event back to its pre-existing state. The semantics of guo based on this hypothesis is arguably a temporal as well as an atemporal notion. This account of guo is possible provided that the theory of time based on the cognitive grammar as proposed in Ahrens and Huang (2002) is adopted as the framework: in their theory the concept of time is conceived as a moving point over a landscape, and the ego facing the past is attached to this point in relation to the event. Under this assumption, the meaning of guo functions to discontinue the time and provides the ego a viewpoint to conceptualize the reversibility property.

* Assistant Professor, Department of English, National Dong Hwa University
1. Introduction

The aspectual morpheme guo is considered one of the two most canonical perfective markers in Chinese—the other one being le. Previous analyses of guo flourished in the literature, attempting to offer an account that best represents the aspectual function of it. To arrive at an adequate account of the genuine semantics of the aspectual guo, the following phenomena have drawn researchers’ attention:

(A) Guo involves discontinuity, as exemplified in the sentences below.

(1) a. ta chi guo faguo cai
    he eat ASP French cuisine
    ‘He had French cuisine (before).’

b. Lisi shuai-duan guo tui
    Lisi tumble-break ASP leg
    ‘Lisi broke his leg.’ (healed and no longer broken)

c. wo you guo yong
    I swim ASP swim
    ‘I swam (before).’

Chao (1968) considers guo in the above constructions a verbal suffix expressing “indefinite past aspect” such that the eventuality represented by the verb occurred at least once before, parallel to the English “ever” meaning. In Li and Thompson (1981), guo is said to signal that an event has been experienced at least
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once, called an “experiential” marker. This sense is called “dead past” by Marney (1982). Yeh (1996) holds a similar view. According to Yeh, for instance, the use of guo in (1a) denotes the experience of trying French cuisine. She proposes that guo’s function be viewed as a temporal quantifier \( \exists \) entailing the at-least-once occurrence of a situation. In fact, such analysis had been brought up by Comrie (1976). He states that the “experiential perfect indicates that a given situation has held at least once during some time in the past leading up to the present” (1976: 58). Comrie illustrates the difference between the experiential perfect (Bill has been to America) and the perfect of result (Bill has gone to America) in English. He notices that many languages make an overt distinction between these two senses, in Mandarin Chinese being the maker of the “toneless suffix –guo” (Comrie 1976: 59).

On top of the indefinite reading, Smith (1997) notices that guo in few cases denotes specific readings.\(^1\) For instance:

(2) ta he guo jiu le
he drink ASP alcohol ASP
‘He has drunk alcohol.’ (indefinite reading)
‘He has drunk (his drink) of alcohol now.’ (specific reading)

According to Smith (1997), (2) has ambiguous readings between the experience of drinking an alcoholic beverage once in the indefinite past or the specific having-drank-his-drink reading. She generalizes that the viewpoint of guo conveys a discontinuity with the present or other reference time. This stands as a major difference between guo and le. The contrast between (3a) and (3b) illustrates this difference:

\(^1\) I deliberately follow Smith’s terminology ‘specific’ in lieu of ‘definite’ to avoid the confusion with the ‘definite/indefinite’ contrast introduced below, which is meant slightly different from the comparison here.
They have gone to Hong Kong,' (may or may not in Hong Kong now)

‘They have been to Hong Kong (before).’ (already back from Hong Kong)

(3a) is felicitous whether or not the voyagers are still in Hong Kong, while (3b) must imply that they have come back from Hong Kong. Guo in (b) implies the discontinuity property, denoting the disappearance of the result state of being in Hong Kong, while the use of le lacks this implication.

\(B\) A predicate combining with guo must be repeatable, i.e. having the recurring feature, explaining why once-only predicates like si ‘die’ are not allowed to be used with guo:

\(4\) *ta si guo
     he die ASP

‘He has died before.’

It is obvious that the requirement follows naturally from the conventional characterization of guo denoting the eventuality has occurred at least once before. This requirement has been shown to be inadequate, and it will be discussed in the next section.

\(C\) For the discontinuity property of guo, it displays a definite/indefinite asymmetry. An issue has been raised that the implicature of guo varies between the use of a definite or indefinite quantifier (Wu 2005, 2007; Lin 2006, 2007), as demonstrated by the following minimal pair:

\(5\) a. Lisi nong-huai guo zhe bu bijixing-diannao
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Lisi make-broken ASP this CL laptop
‘Lisi broke this laptop before.’

b. Lisi nong-huai guo yi bu bijixing-diaannao
Lisi make-broken ASP one CL laptop
‘Lisi broke a laptop before.’

The sentence in (5a) strongly implies that the laptop has been fixed at the time of speech. In contrast, (5b) does not show such an implication, leaving the question open whether the laptop has been fixed or not at the speech time. The dubious situations for the result state of the laptop, apparently caused by the substitution of an indefinite object NP for a definite one, poses a problem for the widely accepted view of the single discontinuity effect emerging from guo.

It can be generalized from the above introduction that experientiality, discontinuity, and repeatability have been suggested to be the inherent characteristics of guo. Moreover, the definite/indefinite distinction mysteriously plays an important role in the interpretation of this morpheme. This paper not only acknowledges the inherent characteristics of guo listed in earlier studies, but further emphasizes another semantic force carried out by guo— the property of reversibility. It will be argued that a thorough account of the semantics of guo cannot be achieved without the inclusion of this semantic force.

This paper is organized as the followings. Section 2 reviews some representative studies of the aspectual marker guo in recent years. Section 3 presents the theoretical framework in the cognitive approach which I will base the subsequent discussions on. Section 4 argues for the “reversibility” force brought out by guo and its manifestation on different verb types, which is in general ignored or misinterpreted in previous studies of it. Combining this semantic force with other in-
herent characteristics highlighted in traditional studies, a complete picture of guo’s semantics is given. Section 5 makes a conclusion and offers some direction toward further investigation on this topic.

2. Review of Recent Studies

Among more recent studies of the aspectual meanings of guo, Hsiao (2003) accounts for the polysemy of it from the perspective of cognitive grammar. He distinguishes between the verbal guo as a process from its extended use as an aspect marker by categorizing the former as a temporal process and the latter as being atemporal. A process is temporal in the sense that it “designates a sequence of states through the domain of a conceived time” (Hsiao 2003: 280). Evolved from the grammaticalization of the verbal guo, the aspectual guo, on the other hand, conceptualizes a relation of atemporal profile interconnecting the participating entities (called trajectors and landmarks). Hsiao further distinguishes three related senses of the aspectual guo—“a schematic process that has happened previously, the continuity of the interconnection between a completed process and the speaker, and the relationship between a presently recurring process and a previous occurrence of an identical process” (ibid: 286), as contrasted in the three examples:

a. wo tongzhi guo ta
   I inform ASP him
   ‘I informed him before.’

b. wo chi guo fan le
   I eat ASP meal ASP
   I have eaten the meal.’

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c. wo lai guo zheli
   I come ASP here
   ‘I have come here before.’

All of the above eventualties entail a composite structure that can be divided into a temporal process encoded by the verb and an atemporal relation between the participants encoded by *guo*.

Pan and Lee (2004) specifically highlight two main problems concerning traditional analyses of *guo*. First, before Lin (2007) and Wu (2008) raised the issue with respect to the indefinite NP effect challenging the discontinuity property of *guo*, they had discussed the following example:

(7) shang ge yue ta nong-huai guo yi tiao zhuozi tui,
   last CL month he make-broken ASP one CL table leg
   xianzai hai mei xiu-hao
   now yet not repair-good
   ‘Last month he broke one table leg. It is not repaired yet.’

The result state in (7), the table leg’s being broken, still holds at the time of speech. They thus conclude that the discontinuity property of *guo* must not be semantically encoded, but be pragmatically imposed. However, as mentioned previously, Lin (2007) and Wu (2008) have pointed out that the disappearance of the discontinuity effect is due to the use of the indefinite quantifier *yi* ‘one’, as it is impossible to use *guo* in the following example with a definite NP:

(8) *shang ge yue ta nong-huai le/*guo zhe tiao zhuozi tui,
   last CL month he make-broken ASP/ASP this CL table leg
   xianzai hai mei xiu-hao
   now yet not repair-good
   ‘Last month he broke this table leg. It is not repaired yet.’
The imposition of syntactic definite/indefinite contrast in (8) clearly plays an important role in determining whether *guo* is permitted or not; therefore, Pan and Lee’s (2004) pragmatic account against the semantic encoding of discontinuity is problematic.

The second argument Pan and Lee (2004) provide to support their pragmatic proposal against the semantic view towards *guo* is their challenge to the repeatability condition—under which a predicate combining with *guo* must be repeatable. For instance, both predicates *lao* ‘old’ and *niangqing* ‘young’ are not repeatable, the latter may co-occur with *guo*, while the former indeed may not.

(9) a. ni ye niangqing guo  
     you also young ASP  
     ‘You also have been young before.’

b. *ni ye lao guo  
     you also old ASP  
     ‘You have also been old before.’

The compatibility of *niangqing* ‘young’ with *guo* leads Pan and Lee not only to speculate the condition of repeatability but also to distinguish three kinds of properties that deal with the plausible interpretation of *guo* (2004: 451).

(10) (a) Reversibility: \([S1 \Rightarrow S2 (\neq S1) \Rightarrow S1]\), where \(S2\) stands for the present state, and \(S1\) for the pre-existing or the reversed state.

(b) Repeatability: \([Sit1 \Rightarrow Sit2]\), where \(Sit\) stand for “situation”.

(c) Change out of state: \([S1 \Rightarrow \text{not } S1]\), where \(S\) stands for “state”.

Pan and Lee (2004) propose that the “change out of state” is the only correct depiction of the aspectuality of *guo*. As change out of state is basically a pragmatic notion, they claim that a purely semantic approach to investigate *guo* must be
questioned in order to derive a complete solution to the meaning of *guo*.

The account of *guo* proposed by Pan and Lee (2004) appears to be too contextually dependent and offers, for instance CSL learners, a rather limited understanding of the meaning of this aspectual marker. In other approaches, two valuable works recently published in Lin (2007) and Wu (2008) both present a formal-semantics analysis to illuminate the meaning of *guo*. In Wu (2008), he provides a reanalysis of *guo* arguing for the discontinuity effect of *guo*. He firstly divides situations into two groups- the first group denotes bipartite semantics (an event followed by a state) and the second group denotes unary semantics which contains only an unbound event (such as an activity or a state). To be compatible with *guo*, a situation must reach a status of terminability, which means either the completion of a bounded situation or the termination for an unbounded situation. Therefore, he concludes that among all related properties suggested in the literature, only discontinuity is an inherent property of *guo*.

Another recent analysis of *guo* by means of formal semantics from Lin (2007) deals with the meaning of this morpheme in even greater details than what Wu (2008) offers. First, Lin generalizes the solved or unsolved problems with respect to the most recent analyses of *guo*, mainly in Pan and Lee’s (2004) proposal and in his own 2006 work. Then, he presents an alternative approach, which is based on what was proposed in Lin (2006), but is considered a more fine-grained and unproblematic version, hoping to achieve a parsimonious picture of the temporal semantics of *guo*. Framed in the model of temporal intensional logic, Lin (2006) accounts for the semantics of *guo* in a proposition in terms of the temporal inter-relation among different states within an eventuality. To further elaborate his formalization, Lin (2007: 247) incorporates two important notions: Dowty’s (1979) notion of *inertia world* and Parson’s (1990) *target states*. Inertia world describes a
possible world \( w \) in which something going on in \( w \) continues during an interval \( i \), as in the case of the semantics of progressive. When the target state of an event comes into existence, it may or may not last for a long time, as the state in *The sacks are unloaded*. Another type of state is the resultant state, which cannot cease holding at some later moment, as the state in *The theorem is proven*.2 Baring the above notions in mind, Lin defines the meaning of a sentence \( P \) with *guo* as "*guo*\( (P) \) is true in a world \( w \) if and only if the run time of the internal stage of an event described by \( P \) is (wholly) before the speech time, and if the event \( e \) has a target state, then there is an inertia world \( w_{\text{inr}} \) stretching from \( w \) such that another event \( e' \) described also by \( P \) but distinct from \( e \) is true in it at an interval containing the speech time" (2007: 251). If I understand Lin’s definition correctly, the event \( e \) represents the target state in the real world, while the event \( e' \) represents a resultant state in a possible, inertia world initiated from the speech time. The occurrence of *guo* requires the interval of the process described by an event \( e \) be fully located before the speech time, which commences a distinct event \( e' \) stretching onward. To solve the puzzle of the definite/indefinite, Lin explicates that the participants of a definite object NP in \( e \) and \( e' \) are exactly the same. Consequently, the event \( e \) must cease before the speech time. (If one does a thing in an interval \( i \) is true at the speech time, then one does the thing in an interval \( i' \) is false at the same point in time, where \( i \neq i' \).) In contrast, it is possible to have a choice of different participants in the case of an indefinite NP for \( e \) and \( e' \). That being the case, there is no requirement that \( e \) and \( e' \) do not overlap. In other words, the target state of an event \( e \) (generated by a participant) may either end before the

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2 Parson’s differentiation between target states and resultant states bears some resemblance to the well-know stage-level/individual distinction or momentary/habitual distinction. However, the resultant state is intended to have an initial point of reference (the present time of speech), which serves well to explain what Lin attempts to formalize in the temporal meaning of *guo*. 

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speech time (yielding the discontinuity reading), or stretch to the speech time or after it to overlap with the event e’ (generating a resultant state by a different participant and yielding the continuity reading). The definite/indefinite asymmetry, under Lin’s (2007) hypothesis, is successfully accounted for.

3. Theoretical Background

Before tackling the aspectual meaning of *guo* in the approach to be presented, it helps to retrieve its origin throughout a diachronic language change. Starting from the recognition of *guo* as a spatial motion verb meaning ‘physical passing through space’ and latter extending to all motions “going past”, H-C Wu (2003) investigates the polysemy of *guo* by showing a series of semantic shifts it has undergone—among them of course its evolution into aspectual morpheme for temporality most related to the central issue of this paper. Although H-C Wu lays a rather heavy stress on discussing various metaphorical changes of *guo* to arrive at its polysemy nowadays, the results of her calculation of the instances of *guo* in two corpora show a surprising distribution. *Guo* appears as an aspectual marker with the frequency of 63% in the Sinica Corpus (containing the written data) and 45% in the Taida Spoken Corpus. H-C Wu concludes that “*guo* indeed has shifted into a more abstract grammatical morpheme, as evidenced by its predominate occurrences as an experiential aspect marker” (2003: 879).

On a cognitive ground, the mapping of space to time—i.e. the conceptual metaphors TIME PASSING IS MOTION (or A MOVING ENTITY) and TIME IS SPACE—have been proposed for English and Chinese (Huang 1981, Tai 1989, Lakoff 1993, 1994, Lakoff and Johnson 1999, Yu 1998). Ahrens and Huang (2002) unify and modify the above views to derive a cognitive linguistic paradigm manifesting the conceptualization of time. They first argue that the two conceptual
domains of MOTION and SPACE must be differentiated, and by doing so, the
TIME IS MOTION metaphor disappears in both English and Chinese. They also
indicate that the TIME (PASSING) IS MOTION THROUGH SPACE metaphor
may serve English correctly, but it is insufficient to account for the Chinese data.
Finally, they remark that TIME PASSING IS A MOVING POINT ON A
LANDSCAPE should be the precise instantiation of spatial-temporal correlation
in Mandarin Chinese. As my viewpoint on the aspectual meaning of guo is essen-
tially grounded on their conception of time, the conclusion they make above is
explained in more details in the following.

Starting with Ahrens and Huang’s formulation of the TIME IS MOTION
metaphor for English based on the theory of Lakoff (1993), the postulation is
given in (11)(2002: 496):

(11)  The General Metaphor: TIME PASSING IS MOTION

Ontology: The passage of time is understood in terms of entities (objects or
egos) that move.

Presupposition: The ego is situated at the present time.

Special Case 1: Time passing is an object that moves towards an ego.

Special Case 2: Time passing is an ego that moves across a landscape.

The two subcases are schematized as Figure 1 & 2 respectively in the next
page (Ahrens and Huang 2002: 492-493).\(^3\) In Figure 1, time moves toward
the ego- the person who is the point of reference in relation to the event. In
Figure 2 the time passing is understood as the ego itself moving over a sta-
tionary landscape, passing units on the time axis. Note that in both cases,
the orientation of the ego is towards the future, as Ahrens and Huang give

\(^3\) Following Ahrens and Huang, upper-case ‘P’ indicates the present point in time. The icon
representing ego is not marked “(ego) ” in their original figure. I do it here for readers to better un-
derstand the figure.
the examples in (12) to illustrate.

(12) a. We’re looking forward to the arrival of Christmas.
    b. We’re looking forward to the end of the semester.

Figure 1: Time passing is motion of an object

Ahrens and Huang (2002) claim that in spite of the above schemata being correct
for English, it does not hold for the Chinese data they surveyed, particularly with respect to the orientation of the ego. It is true that time approaches the ego from the past; in other words, time comes toward the speaker, as the highly lexicalized expressions in Mandarin from Ahrens and Huang show:

(13) a. jiang-lai
b. lai-ri
Immediate-come coming-day
‘future’ ‘future days’

In (14), a specific time (Christmas) is moving toward the speaker:

(14) shengdanjie kuai dao le
Christmas quick arrive ASP
‘Christmas is almost here.’

Nonetheless, Ahrens and Huang point out that one salient feature of the Chinese concept of time is the orientation of the ego toward the past, contrary to the English one illustrated in Figure 2. They list the following examples to demonstrate:

(15) a. qian-nian wo dao meiguo qu le
front-year I to America go ASP
‘I went to America two years ago (the year before last).’

b. wo dasuan hou-nian jiehun
I plan back-year marry
‘I plan to marry two years from now (the year after next).’

c. qian bu jian gu ren, hou bu jian lai zhe
front not see ancient people back not see come those
‘I can’t see any predecessors before me and any followers behind me.’

In light of the data they present above, it can be concluded that, at least for Mandarin speakers, what is in front of an ego is the past, while what is behind is the future. This hypothesis casts an insightful characterization on our conceptualization of time, such that the ego moves only as consequence of attaching to a nec-
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essarily moving-forward reference point in the time line which is metaphorically conceived of as a landscape. The ego itself faces towards the past. Imagine the ego as a landscape-observer sitting on a train and facing the end of the train. While the train moves towards one direction, the observer is fixed even though his/her perception of the train is moving backward. This picture can be expressed as the following figure (Ahrens and Huang 2002: 501):

Figure 3: Time passing is a moving entity; ego is oriented towards the past

Summarizing Ahrens and Huang’s proposal, time is construed as the mapping of a moving entity to a reference point (i.e. the present time) where the ego is attached. The orientation of the moving entity is toward the ego; on the other hand, the orientation of the ego is language specific, with English preferring facing the future while Chinese prefer facing the past. The ideas sketched above indeed not only play an important role in interpreting the conceptualization of time, but also strongly support the proposal for the explanation of the aspectual denotation of guo in the next section. To foreshadow the hypothesis, I will argue that the basic force of guo is to reverse the observance of the eventuality leftward to the past on the time axis, as if a pre-existing state is recovered. In this regard the speaker in-
involved in the *guo* construction functions like the ego who conceptualizes the temporality towards the past. Nevertheless, if the predicate denotes an irreversible event, such effect will not occur and hence only the experientiality is derived.

4. The Reversing Force of the Aspectual Guo

4.1 Some Criticisms of the Recent Studies

The most recent studies of the aspectual *guo* reviewed in Section 2 all have their own advantages and weakness. We must appreciate the efforts the researchers have contributed in resolving problems where certain cases of *guo* used as an aspectual marker have deviated from the univocal experiential sense and discontinuity effect. On a conceptual ground, Hsiao (2003) suggests that the perfective marker *guo* be characterized as an atemporal relation (of two states). This may seem a claim too strong in two regards. First, I speculate that his division between temporal and atemporal profiles appears to be too strict, in that only processes represented by verbs are temporal (cf. Hsiao 2003: 280-281). The other peripheral predications such as “adverbs, adjective, preposition, aspect marker” (ibid, 280) are categorized as atemporal relations. Leaving aside the aspect marker for a moment, it is common to see grammatical categories—such as adverbs like *sometimes, forever*, or prepositional phrases such as the durative phrases *in an hour, after sunshine*—whose intrinsic denotations directly point to the concept of time. As for aspectual marker, taking *guo* for example, Hsiao states that what it profiles is “an atemporal relation between the participants, but not a temporal process”(ibid, 286). However, given its derivation from the spatial motion verb and the widely accepted TIME PASSING IS MOTION or TIME IS SPACE metaphors, the conceptualization of aspect marker as being atemporal appears to be counter-intuitive. Pan and Lee’s (2004) account, as commented by Lin
(2007), imposes too much stress on the pragmatic implicature and is likely to miss several phenomena derived from a single syntactic alternation such as the asymmetric definite/ indefinite NPs. Wu (2005, 2008) and Lin (2006, 2007) employ an approach of intensional tense logic to obtain a more formal semantic formalization of guo’s readings. It is worth noting that both of them endorse the conventional view towards the meaning of guo, i.e. the discontinuity property, and prove in different ways to derive this inherent meaning of guo.4 Although their approaches satisfactorily account for various cases of guo’s occurrences in Mandarin Chinese under the same roof of model-theoretic semantics, contrary to Hsiao’s methodology, the intuition they provoke appears to be too “temporal”. For decades, aspectualists have suggested to separate the semantics of aspect from that of tense by something non-temporal which is a mysterious facet of aspect but interesting to explore (e.g. the discussion of Ahrens and Huang’s (2002) cognitive approach above and Klein et al.’s (2000) proposal of contextual, pragmatic influence on aspectual interpretation). I believe that a perspective of aspect from the conceptual metaphors proposed by Ahrens and Huang is on the right track to verify both the temporal and atemporal features of guo.

4.2 Proposal of Reversibility

To begin my proposal, it should be pointed out that from viewing a consensus of earlier analyses of guo to more recent ones, the existence of two states encoded by the meaning of guo has been recognized. For example, Wu (2008) predicts bipartite semantics contain a bounded/unbound situation (state 1) plus a resultative state (state 2). In Lin (2007), they are called the target state (state 1) and resultant state (state 2). Pan and Lee (2004) define “change out of state” as a turn

4 Pan and Lee (2004: 453) also propose that two properties of guo—change out of state and discontinuity—can be considered to be one and the same.
from a previous state to a new state. In the following, I’ll argue that their viewpoints on the two states are contrary to what our conceptualization of time obtains, provided that we adopt the hypothesis in the last section that time moves toward the ego and the ego faces the past. If this hypothesis is correct, the reversing property would be the right assumption to relate the two states.

First, we revisit the argument from Pan and Lee (2004) and examine how they explain why neither repeatability nor reversibility is the right characterization for the meaning of *guo*. Remember they use the compatibility of *lianqing* ‘young’ and incompatibility of *lao* ‘old’ with *guo* to prove that repeatability is not the right condition for using *guo*, since both *lianqing* and *lao* are non-repeatable. The example is shown below again:

(9) a.  ni ye nianqing guo

> ‘You also have been young before.’

b.  *ni ye lao guo

> ‘You have also been old before.’

They also argue that reversibility still fails to explain why *nianqing* ‘young’ is fine in (9a), although it predicts the ill-formedness of *lao* ‘old’ occurring with *guo* (with their problematic formulation, I suppose). Based on the representation in (10a) above, both predicates are shown as follows:

(16) a.  *Nianqing: ???[nianqing → not nianqing /lao → nianqing]*

\[
\begin{array}{ccc}
S_1 & S_2 & S_1 \\
\end{array}
\]

b.  *Lao: ???[lao → ??? → lao]*

\[
\begin{array}{ccc}
S_1 & S_2 & S_1 \\
\end{array}
\]

According to Pan and Lee, in (16b), when *lao* ‘old’ occurs with *guo*, *guo* indicates
the individual is not in the state of being old; therefore, S₂, which stays at the present time, is equal to a state occurring after S₁ (the *lao* state), which is the “reversed or pre-existing state” (2004: 453). However, they claim that since there is no state after the *lao* state, the representation in (16b) is counter-intuitive. As for *nianqing* ‘young’ in (16a), there indeed exists a state after *nianqing*, namely, not *nianqing* or *lao*. However, a reversal from “not *nianqing* back to the *nianqing* state” (2004: 452) is not possible. A person entering the age of, say 60 years-old, is impossible to return to an age under 60. Thus reversibility would wrongly predict the incompatibility of *quo* with *nianqing*. Instead, to change out of the *nianqing* state to the not-*nianqing* state is the true meaning that *guo* conveys.

Pan and Lee’s analysis above, I believe, is a misconception about how reversibility works for the examples in (9). Some points they make about the reversibility property should be clarified. Let us concentrate on the temporal precedence in (16b) first. If S₂ stands for the “reversed or pre-existing” state of S₁ *lao* ‘old’, then S₂ refers to *nianqing* ‘young’, which should precede S₁. So, the direction of time flow in their representation of (16b) is opposite to the situation in the real world. As for (16a), they state that a reversal from not *nianqing* back to the *nianqing* state is not possible. However, since they admit that the reversal of a state is to bring a state “back” to somewhere, the second *nianqing* state S₁ in (16a), after being brought back, should overlap the first S₁, rather than occur after it. In sum, the motivation for their argument lies heavily on the temporally anterior/posterior relation among different states. However, the order given for both *nianqing* and *lao* in (16) is problematic. Besides, it is arguable whether the explanation for the impossibility of a reversed state should be based solely on the violation of the physical law of time flow. Suppose we take the reversal concept to be “reversing back to a pre-existing state”, following what Pan and Lee suggest:
some non-temporal factors causing the reversibility are likely to emerge. For example, with the advanced cosmetic surgery technology available today, an aged person is metaphorically possible to “look” young again by having cosmetic surgery. This circumstance can be construed as a way of reversal to the “being young” state.

Following from clarification on the notion of reversibility, I propose that the representation in (16) be revised to (17).

(17) a. \( \text{Nianqing: nianqing } \rightarrow \text{ not nianqing /lao} \)
\[ S_1 \leftarrow S_2 \]

b. \( \text{Lao:??? lao } \rightarrow ??? \)
\[ S_1 \leftarrow S_2 \]

After the revision, (17) predicts that co-occurrence of guo with lao is still impossible because there exists no such state after the being old state. In contrast, a being old state after the being young state is temporally plausible. More importantly, the reversal of \( S_2 \) to \( S_1 \) is now correctly represented on the premise that the reversibility is taken as relating the atemporal characteristics between two states. The combination of (17a) and (17b) into (18) offers another way to understand the facts about the several states under discussion.

(18) \(<---------------------------------------|---------------------|------------------>\)
\[ \text{nianqing } \rightarrow \text{ not nianqing /lao } \rightarrow ??? \]
\[ S_1 \leftarrow S_2 \leftarrow S_3 \]

Suppose we identify three states along the time line, \( S_1, S_2, S_3 \), representing nianqing ‘young’, not nianqing/lao ‘not young/old’, and a state (in question mark) after lao respectively. The speech time \( (t_1) \) of the utterance \( \text{ni ye nianqing guo} \) ‘You also have been young before’ is set at \( S_2 \), and the meaning of guo reverses.
the state back to S1. The sentence *ni ye lao guo ‘You have also been old before’ is unacceptable since there is no such state at which a reference point (of another speech time t?) can be set. What I have argued so far concerning this notion of reversibility will become an important tool to analyze the aspectual meaning of guo in the remaining discussion. Before doing so, I shall explain the notion further to demonstrate that reversibility embodies the precise characterization of the whole meaning of guo.

My motivation behind this reversibility view as regards guo derives essentially from its origin as a motion verb meaning “physical passing through space”, and “going to the past”. Diachronically the verb then evolved to derive the aspectual meaning of discontinuity or experientiality. This meaning deals partially with the concept of time and partially with something beyond temporality. My reasoning is specifically based on the following: 1) discontinuity encodes the cessation of the temporal progress of the event; 2) the cessation is possibly followed by an effect in question by which the viewpoint of an eventuality is directed back to the past at the time of speech. This proposal fits quite well with what we expect the semantics of guo should be, as it is classified within the aspectual realm on the perfective hemisphere which in general is a concept related to anteriority more than futurity. With the presumption that guo encodes a relation between two states as many researchers agree, it is reasonable to hypothesize that the effect in question is the reversal which works like the instantiation of a viewpoint from the ego who perceives the change of the perfective new state as being equivalent to its pre-existing state. As introduced in Section 3, Ahrens and Huang (2002) argue that time is conceived invariantly as something that ‘comes’ to the present and ‘goes’ to the past. The ego- the person who is attached to the point of reference in relation to the past- whose orientation is towards the future in English, is oriented
towards the past in Mandarin Chinese. If we tie together the conceptualization of the metaphor TIME and the ego in the cognitive approach, the aspectuality of *guo* can be interpreted as including two procedures of meaning encoding. Firstly, the discontinuity is parallel to the stopping of time flow at the speech time. Then, the reversal of state is conceived of as directing the speaker’s perspective toward the past, which is parallel to what the ego in the Chinese language does in the cognitive model. This parallelism entails that the semantics of *guo* is both temporal and atemporal—a temporal discontinuation of the target state followed by a conceptual mapping of the resultant state to a pre-existing state in the atemporal sense. As Ahrens and Huang also point out, when time is being understood as a moving entity, it can stop, although the ego attached to it can never stop. Accordingly, the discontinuity of temporal movement is possible, in the case of *guo*, at the present time, where the speaker’s viewpoint orientates toward the “dead past” comparing two states—thereby deriving the reverse effect. It should be noted that the reversive effect does not necessarily emerge if the event *guo* describes is logically irreversible; in such cases only the discontinuity/experientiality reading can be derived. The ambiguity issue of *guo* is reasonably accounted for under the above proposal.

The reversibility effect of *guo* I argue for can be best demonstrated by the journey example (3) given in the introductory section. The trip to Hong Kong can be conceived of as containing three states: the state before going to Hong Kong

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5 The example they give to demonstrate this point is the following:

a. *tamen xiwang tamen bu hui jinru daoda mingtian*
   
   they wish they not can enter/reach tomorrow
   
   ‘(intended) They wish they will not enter/reach tomorrow.’

b. *tamen xiwang mingtian yongyuan bu hui lai*
   
   they wish tomorrow forever not can come
   
   ‘They wish tomorrow would never come.’
(S₀), the state of being in Hong Kong (S₁) (the target state), and the resultant state following the S₁ state, namely S₂, represented as (19).

\[
\begin{align*}
\text{(19)} & \quad \langle \not \text{in HK} \quad \rightarrow \quad \text{being in HK} \quad p \quad \rangle \\
S₀ & \quad \leftarrow \quad S₁ \quad \text{guo} \quad S₂ \\
\text{target state} & \quad \text{resultant state}
\end{align*}
\]

An interesting contrast between (3a) and (3b) is that the use of le in (3a) does not specify whether the people are still in HK or not, while the use of guo in (3b) specifies that they have returned from HK at the speech time p. Put another way, le only entails that the trip to (→) HK is viewed as a bounded event and says nothing more about the resultant state following the one-way trip. Guo further indicates the return trip (←) and thus the round-trip event has been completed. Geographically the returned point of a travelling event is also the original point of the voyage. Supposing the travelers had a round-trip from Taiwan to HK, at the speech time of (3b) they have been back in Taiwan. That is, S₂ overlaps S₀ with respect to the travelers’ location. Therefore, the contrast between (3a) and (3b) confirms the reverse effect on the travelers’ location from S₂ back to S₀ due to the occurrence of guo, even though the interval where S₀ exists is before S₂. In addition to the reverse effect itself, one point I need to emphasize again is the atemporal characteristics of this effect—to relate two state-of-affairs (in this case the relative spatial locations). In this sense the resultant state S₂ following the going-to-HK event overlaps S₀ in that they both refer to the same location.

The “resultant state” in the reversibility assumption I proposed above differs from Lin’s (2007) construal mainly in the respect that what he posits as the resul-
tant state (the state after the target state) is in most cases distinct from (and posterior to) the target state. Take his example ‘Lisi broke this laptop before’ to illustrate. In his approach, the event with use of *guo* may have the following temporal representation:

![Temporal representation diagram]

For a sentence containing *guo* with a definite NP, the two events *e* and *e’* must be distinct, so that the target state must cease before *p*, deriving the discontinuity reading. Such requirement does not hold for an indefinite NP, in which case *e’* may or may not overlap *e*. Although Lin’s (2007) account correctly characterizes the temporal distinction between the target state and the resultant state, three issues should be raised here. First, given his formalization of the meaning of a sentence with *guo*, the resultant state is presumably at or after the speech time. However, whether this temporal interpretation reflects our intuition remains debatable, since our intuition of the intrinsic meaning of *guo* tends to be “going past”. Additionally, as mentioned earlier, *guo* is a perfective marker whose main intended concept is more related to anteriority than futurity. Second, Lin (2007: 247) notes that the term “inertia world”- adopted from Dowty (1979) to explain the resultant state- is originally used by Dowty to discuss the semantics of the progressive. Intuitively, the progressive is an aspectual concept contrary to discontinuity. The third issue arisen from Lin’s theory is although his device of the event *e’* successfully accounts for the ambiguity of sentences with *guo* with an indefinite NP, the theory cannot explain the difference in the aspectual interpretat-
tions of the two sentences below, both used with an indefinite NP as the example in (20) and (21) show.

(20) Lisi nong-huai guo yi bu bijixing-diannao
Lisi make-broken ASP one CL laptop
‘Lisi broke a laptop before.’ (may or may not be repaired)

(21) Lisi gai guo yi dong fangzi
Lisi build ASP one CL house
‘Lisi built a house before.’

Despite two possible readings in (20), it is hard to obtain the same sort of ambiguity in (21). The example in (21) is univocal with the experiential reading only, denoting the once-occurrence of the house construction event. The comparison above shows that the use of a definite or an indefinite NP should not be the sole factor deciding the reading of guo. The choice of predicates, i.e. the semantics of an event per se, or some other factors in question, may also play a role in the determination of the reading.

4.3 Reversibility and Discontinuity

Wu’s (2008) proposal of the terminability and wholeness conditions on the use of guo takes the notion of terminability to be “the state’s stop holding” (p.11). For example, the contrast between niangqing ‘young’ and lao ‘old’, according to him, is in that a person can become not young, while once a person is old he/she cannot become ‘not old’. Likewise, once a person is dead, he/she cannot become “not dead” because he/she can never be resurrected. This explains why si ‘die’ and lao ‘old’ are incompatible with guo. In other words, for a state S to be terminable, there must exist the S/~S distinction. The distinction made here can be subsumed under the concept of reversal between states of which I have been arguing for so far. From the reversibility viewpoint, si ‘die’ certainly is not a re-
versible verb. Unlike *si* ‘die’, the effect of reversibility appears in events such as the young/not young case and the round-trip interpretation of going to Hong Kong.

Readers may now be able to draw a connection between what Lin called “discontinuity’ or Wu called “terminability” and the reversibility I propose- my idea of reversibility further implies a likely atemporal meaning in that it denotes a possible reversal of a physical state, as in the case of a directional verb or the returning-to-be-young example. In conclusion, reversibility presumes a termination of the target state; that is to say, the effect of reversibility is an automatic follow-up from discontinuity which *guo* invariably imposes on the event. However, the reversal effect may not take place in all predicates because some eventualities are inherently impossible to be reversed- as *die* ‘si’ or *juezhong* ‘extinct’. Whether or not an event exhibits the reversibility property is more of a conceptual issue than a temporal one.

Let us return to the examples in (20) and (21) to see how using the notion of reversibility is able to explain their difference. As stated, both (20) and (21) contain *guo* used with an indefinite NP, but (20) is ambiguous while (21) must be interpreted with the discontinuity reading. Inspecting the events in them, (20) involves a reversible one *nong-huai bijixing-diannao* ‘broke laptop’, yet *gai guo yi dong fangzi* ‘build one house’ in (21) is irreversible. After repair, a broken laptop can be reversed to the state before being broken. Once built, a house’s existence cannot be changed and brought back to its original nonexistence, and hence the reversal of the building house event is not possible.

Let us use the diagram as in (22) and (23) to represent the explanation above.
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(22)  a.  <-------------------------------|-------------------------------|------------------------>
not broken  →  broken  p
S₀         S₁        guo        S₂

b.  <-------------------------------|-------------------------------|---------------------------------->
not broken  →  broken  p  not broken (repaired)
S₀      ← S₁        guo        S₂
“the breaking laptop event”

(23)  <-------------------------------|-------------------------------|------------------------>
not built  →  building a house  p
S₀        S₁        guo        S₂
“the building a house event”

It’s easy to see from the comparison above that the broken state of the laptop in (22a) has no discontinuity effect, so that the laptop is still broken. In (22b), the laptop has been repaired (by someone) and thus ceases ( discontinues) to be broken, as if it is reversed to the pre-existing unbroken condition. In contrast to (22), once a house-building event ceases, a house is formed. There is no way for it to return to its non-existing state. Hence the reverse meaning is impossible such that only the experiential reading is derived.

4.4 Reversibility in Telic and Atelic Events

At this point readers might wonder why the irreversible verb si ‘die’ may not be used with guo at all, whereas another irreversible event- gai yi dong fangzi ‘build one house’- may. The reversibility account seems to work only for some predicates in Chinese for the use of guo, but not others. This is not the case after
we meticulously classify the events in Chinese. The following typology of events is based on the theories in Vendler (1967) and Dowty (1979) - two classic analyses of verbal typology that have been widely adopted. Four basic types of events are state, activity, achievement, and accomplishment. It is worth noting that the notion of event can be grammaticalized at different syntactic levels. For example, the lexical verbs ‘build’, and ‘walk’ are activities, whereas at the predicate level they can be turned into the accomplishment by their arguments or quantifying adverbials, e.g. ‘build a house’, ‘walk to school’. It follows that an accomplishment must include a complement or an adjunct phrase. The other three types of events, on the other hand, do not have such a feature. For instance, in Chinese an activity can be lexically expressed, but occasionally a phrasal predicate, such as *ku* ‘cry’ vs. *du shu* ‘read-book (read)’. So does the achievement, as in *si* ‘die’ vs. *ying sai pao* ‘win a race’. More examples of the four types of events in Chinese are given in (24).6

(24)  

<table>
<thead>
<tr>
<th>Type</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stative</strong></td>
<td>nianqing ‘young’, <em>lao</em> ‘old’, cunzai ‘exist’, juezhong ‘extinct’</td>
</tr>
<tr>
<td></td>
<td>zhidao daan ‘know answer’, xihuan gou ‘like dog’</td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td>gai ‘build’, <em>chi</em> ‘eat’, <em>ku</em> ‘cry’, yiuyong ‘swim’, xiezi ‘write’</td>
</tr>
<tr>
<td><strong>Achievement</strong></td>
<td><em>si</em> ‘die’, <em>ying (sai pao)</em> ‘win (a race)’, daoda ‘arrive’, dasi</td>
</tr>
<tr>
<td></td>
<td>wunzi ‘kill mosquito’, <em>shuaiduan tui</em> ‘break a leg’</td>
</tr>
<tr>
<td><strong>Accomplishment</strong></td>
<td><em>qu xianggang</em> ‘go to Hong Kong’, <em>ting yanjiang</em></td>
</tr>
<tr>
<td></td>
<td><em>gai fangzi</em> ‘build a house’, <em>zuo dangao</em> ‘make a cake’, <em>chi faguo cai</em> ‘have French cuisine’,</td>
</tr>
</tbody>
</table>

6 I have been using the term “state” throughout the paper to indicate different stages involved in the *guo*-construction. To avoid confusion, henceforth I will use “stative” for verbs and predicates representing the “state” type of eventuality in Vendler’s sense. Also, the adjective’s functioning as the verb has long been assumed in Chinese in the literature.
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nonghuai diannao ‘break computer’, kushi shoupa ‘cry handkerchief wet’

Along the lines of Vendler’s (1967) definition, the four types of events can be distinguished by means of their temporal characteristics on the time schemata. An activity denotes instant $t$ on a time stretch; a stative denotes any instant throughout a long interval. Both of them can thus be considered atelic events. An achievement denotes the time instant between two temporal points at which the event occurs. An accomplishment also denotes instant $t$ on the interval within which the event is viewed as enclosed. The achievement and the accomplishment are telic in nature. The remaining discussion of this paper is organized according to the telicity nature of events with respect to their reversibility property. Before starting, it may help to present an overview of the reversibility property of the four types of events in Chinese (with the indexes $s$, $act$, $acc$, $ach$, representing state, activity, accomplishment, and achievement respectively).

(25)  a. examples of irreversible events

lao, ‘old’, juezhong, ‘extinct’, $si_{ach}$ ‘die’, $dasi_{ach}$ ‘kill mosquito’, $gai_{acc}$ ‘build a house’, $zuo_{acc}$ ‘make a cake’, $chi_{acc}$ ‘have French cuisine’, $sheng_{acc}$ ‘give birth to a baby’, $xie_{acc}$ ‘write letter’, $ying_{ach}$ (sai pao) ‘win (a race)’, $ting_{acc}$ ‘go (listening to) speech’, $canjia_{ach}$ ‘attend meeting’

b. examples of reversible events

nianqing, ‘young’, $cunzai$ ‘exist’, $zhidao_{s}$ ‘know answer’, $xi$ ‘huan gou’, ‘like dog’, $gai_{ach}$ ‘build’, $chi_{ach}$ ‘eat’, $ku_{ach}$ ‘cry’, $yiuyong_{ach}$ ‘swim’, $qu_{ach}$ ‘go to Hong Kong’, $daoda_{ach}$ ‘stand up’

And the two temporal points are close to each other. Hence achievement events are also known as being "punctual".
‘reach the summit of a mountain’, *shuaiduan tui* acc ‘break a leg’,
*nonghuai diannao* acc ‘break computer’, *kushi shoupa* acc ‘cry handkerchief wet’

As defined, the state $S$ is reversible in the sense that there can be found a logical
$\neg S$ following $S$ and $\neg S$ is equal to the opposite, reversed property of $S$. Therefore,
*lao* ‘old’ and *juezhong* ‘extinct’, and *si* ‘die’ (or *dasi* ‘kill’) are all irreversible
events since there cannot be found a state of ‘not old’, ‘not extinct’, ‘not dead’ (or
not being killed). These are straightforward cases of irreversible events. Note that
among the examples in (25a), a group of events of the accomplishment-type have
to be understood as being irreversible. In those situations, when the situations ar-
rive at a complete ending, some objects are formed or consumed (thus wholly cut
apart), and there is no way to bring them back to the state before the situations
happen. Once a house is built or a cake is made, it is impossible to make it into
the state of non-existence. On the contrary, once some food is eaten, there is no
way to bring it back to the state of existence. After a person won a race, the win-
ning can never be receded. Likewise, a person finishing a meeting can never erase
the experience of going to that meeting. In sum, a $\neg S$ state following $S$ cannot be
retrieved in the above situations. Following the same reasoning, all examples in
(25b) can be said to be reversible events. For example, there can be found a ‘not
young’ state following the young state, a ‘not existing’ state after the existing state,
a ‘not swimming’ state after the swimming state while the activity ceases, a ‘not
going to HK’ state if one has returned, a ‘not broken’ (repaired or healed) state
after the broken state, and so on. Therefore, in these situations the $\neg S$ can be
retrieved which is equivalent to the state before $S$ occurs. Note that some events

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8 The meeting-attending example is a borderline case. It is debatable whether it should be consid-
ered an irreversible event based on this interpretation or a reversible event according to how I ex-
plain below the reversibility in events like the activity of swimming.
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are reversible at the lexical level, but become irreversible at the predicate level, for instance, the reversible building event (with the likelihood of ‘not building’ state) versus the irreversible building a house event. Bearing the notion of reversibility in mind, I will present a picture of how this property is related to the use of guo in various types of events in Chinese.

It is easy to account for the use of guo in the atelic events based on reversibility. An atelic- but conceptually irreversible event- is incompatible with guo, as in the examples below.

(26) a. *ni ye lao guo
    you also old ASP
    ‘You have also been old before.’

b. *konglong juezhong guo
    dinosaur extinct ASP
    ‘Dinosaurs have become extinct before.’

Other atelic events are virtually reversible and compatible with guo. Some examples are listed in (27).

(27) a. ni ye nianqing guo
    you also young ASP
    ‘You have also been young before.’

b. ta ku guo
    he cry ASP
    ‘He cried before.’

c. konglong cunzai guo
    dinosaur exist ASP
    ‘Dinosaurs existed before.’

d. ta yiu guo yong
As predicted, *guo* in the reversible atelic events derives the meaning of the reversal of the state, that the participants have turned into the ¬S state. The following stative predicate further confirms that intuition.

(28) tcpzhidao guo daan, keshi xianzai bu zhidaole
tcpknow ASP answer but now not know ASP

‘He knew the answer before, but now he does not know it.’

The above event expresses the sense of reversibility on the reading where the person referred to has forgotten the answer, which equals to the pre-existing state of ‘not knowing’. It should be noted that the definiteness does not play a role in the unified reading of reversal in the atelic event.

(29) a. tcp xihuan guo zhe/yi zhi xiaogou, xianzai bu xihuan le
tcp like ASP this/one CL puppy now not like ASP

‘He liked this/a puppy before, but now he dislikes it.’

b. tcp xihuan guo zhe/yi zhi xiaogou, *xianzai hai xihuan
tcp like ASP this/one CL puppy now still like

‘He liked this/a puppy before, and *now he still likes it.’

The contrast above shows the unambiguous reading of reversal in the atelic event, as it is only allowed to pattern with ‘now he dislikes it’, with no difference with respect to whether a definite NP or an indefinite NP is used.

In comparison with the atelic events, the aspectual meaning of *guo* in the telic event is much more complicated in Chinese, varying its semantics and usability among several subtypes of the telic event. Reversibility, despite still being a presumed feature deciding the acceptability and semantics of *guo* in telic events, is not the only property taken into account. After a careful generalization from
abundant examples in the literature, I propose that reversibility, definiteness, and the Aktionsart property of the event itself combine together to accurately explain the aspectual meaning of the guo in Chinese. Firstly, let us revisit the famous definite/indefinite asymmetry. An irreversible event is not allowed to occur with guo when it contains a definite object NP, as shown in the following examples.

(30)  a. *ta gai guo zhe dong fangzi
     he build ASP this CL house
     ‘He built this house before.’

b. *ta zuo guo zhe kuai dangao
     he do ASP this CL cake
     ‘He made this cake before.’

c. *ta sheng guo na ge xiaohai
     she bear ASP that CL baby
     ‘She gave birth to this baby before.’

The irreversible, telic events in (30) are incompatible with the use of guo due to the occurrence of the definite object NP. However, their unacceptability can be redeemed by the use of the indefinite NP with a numeral-classifier modifier before the head noun, as compared in (31).

(31)  a. ta gai guo yi dong fangzi
     he build ASP one CL house
     ‘He built one house before.’

b. ta zuo guo san kuai dangao
     he do ASP three CL cake
     ‘He made three cakes before.’

c. ta sheng guo haoji ge xiaohai
     she bear ASP several CL baby
‘She gave birth to several babies before.’

The definite/indefinite asymmetry resulting in the limitation for the co-occurrence with *guo* is a unique characteristic of this aspectual marker. As mentioned, Lin (2007) and Wu (2008) offer an account of the asymmetry based on the possible scenario of different participants in the events to explain the acceptable indefinite cases. This account is intuitively correct because the object NP with an indefinite determiner is not necessarily the same as the NP referred to by *guo*. Consequently, the semantics of *guo* may not have scope over this indefinite NP; that’s why sentences in (31) may sound acceptable. Their explanation will be restated in the coming discussion. For now I would like to lead readers’ attention to the fact that the acceptable sentences in (31) express only the experiential reading. As I argued for the example in (21), their univocal experientiality is attributed to the irreversibility of the events; hence they are different from the ambiguous *nonghuai yi bu diannao* ‘broke a computer’ example involving reversible events.

It is interesting to specify one seeming exception where an irreversible event with the definite object NP is allowed to use *guo* as in this particular example:

(32) ta chi guo zhe dao faguo cai
    he eat ASP this CL French dish
    ‘He had this dish of French cuisine before.’

Intuitively, there is a difference between the sense of the definite NP in (32) and those in (30). *Zhe dao faguo cai* ‘the dish of French cuisine’ in (32) refers to ‘a kind’ of food, i.e. a generic reading, while those definite NPs in (30) have only the specific reading referring to a particular, unique entity. In other words, the object NP in (32), understood as a ‘kind’, should be understood as an indefinite one, which has been shown above to be compatible with the use of *guo*. Once again,
this example does not constitute a challenge to the proposed analysis so far.9

Continuing the issue of definite/indefinite contrast, the following two irreversible events may sound acceptable with the definite NP, being seemingly contrary to the prediction if the assumption for the instances in (30) is correct.

(33) a. % ta ying guo na ci saipao
    he win ASP that CL race
   ‘He won that race before.’

    b. ta ting guo na chang yanjiang
    he listen ASP that CL speech.
   ‘He listened to (attended) that speech.’

The two sentences both display the interpretation where the agent role completed an experience of certain activities; moreover, the syntactic definite object is not affected by the result of the eventuality. That is, the resultant state describes the subject NP rather the object NP. (33a) and (33b) are structurally parallel to those in (30) but semantically distinct from them. In the examples of (30) we saw a group of telic events where the affected argument of the event is realized on the object NP argument, whereas in (33) it is the subject NP acting upon the event. Accordingly, the definite numeral-classifier modifier seems to play no role on the events involving guo. I thereby propose to pattern (33a) and (33b) with the cases of (31) denoting only the occurring-once experiential reading. Native speaker’s intuition confirms that the prediction here is right.10

9 Lin (2007: 252) shares the same intuition with me. For a clear explanation of the extension of definite “kind” reading to indefinite generic reading, readers are advised to refer to Carlson (1977), the first person bringing up the issue in the linguistic approach.

10 The intuition is confirmed by Chris Ciambarella, ESL instructor of Language Center at National
Turning to another special example, the irreversible event dasi wenzi ‘hit-dead (kill) mosquito’, as brought up in many previous studies, is also worth discussing:

(34) a.  *ta  da-si     guo  zhe  zhi  wenzi
       he  hit-dead  ASP  this  CL  mosquito
       ‘He killed this mosquito before.’

b.  ta   dasi     guo    xuduo  wenzi
    he    hit-dead   ASP    many    mosquito
    ‘He hit and killed many mosquitoes before.’

Although the grammatical judgment of (a) follows from the general assumption regarding the definite object NP in the irreversible telic events, (34b)’s ambiguity as opposed to the univocal experientiality we have seen so far for irreversible telic events is left unaccounted for under the present analysis. Here I shall still leave the puzzle for a moment and return to it when we examine the influence of indefiniteness on the reversible telic events in the immediate following.

After showing the semantics of guo in Chinese sentences containing atelic events and irreversible telic events, let us proceed to discuss the reversible telic events. We have seen in the analysis of the atelic predicates that if a situation described by an event is reversible, presumably the aspectual meaning of the situation is interpreted as being reversible, denoting the reversal of the target state S to ¬S which is identical to the state in which the event had not happened. For the reversible telic events, it indeed is the unmarked case as well, as the following examples illustrate:

(35) a.  ta   kushi    guo  zhe   tiao  shoupa
           ta    cry-wet   ASP   this    CL    handkerchief
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‘He cried the handkerchief wet before.’

b. ta nonghuai guo zhe bu bijixing diannao
   he make-broken ASP this CL notebook computer
   ‘He broke the laptop before.’

c. ta daoda guo na zuo shangding
   he arrive ASP that CL mountain-top
   ‘He reached the top of the mountain before.’

d. ta qu guo xiang kang
   he go ASP Hong Kong
   ‘He has been to Hong Kong before.’

The four examples all denote an aspectual meaning of the reversal of the target state to its opposite pre-existing state. For example, the speaker in (35a) implies that the handkerchief has become dry again from the wet condition. Similarly, the intransitive subject in (35c) is understood as already returned from the summit of the mountain at the speech time. One might notice that the predicates above all include the concept of definiteness as seen in (35a) through (35c). Note that (35d) also encodes the definiteness of the locative adjunct Hong Kong even without the determiner zhe ‘this’, due to the grammatical restriction of determiners before proper nouns. If the observation for (35) is right, we may proceed to see the aspectual meaning of them when an indefinite NP is used, as shown in (36).

(36) a. ta kushi guo yi tiao shoupa
   he cry-wet ASP one CL handkerchief
   ‘He cried a handkerchief wet before.’

b. ta nonghuai guo yi bu bijixing diannao
   he make-broken ASP one CL notebook computer
   ‘He broke the laptop before.’
Comparing (36a&b) with (36c&d), the latter pair still maintain the reversal meaning in which the persons have been back from the top of mountain/the trip to HK, whereas the former is ambiguous between the reversal reading and non-reversal reading. For instance, the laptop in (36b) can be either repaired already (the reversal reading to the not-broken condition), or still broken (the non-reversal reading). As explained above along the lines of Lin and Wu, the comparison between (35a&b) and (36a&b) shows what has been suggested as the definite/indefinite asymmetry, a distinction between unambiguous and the ambiguous reading with reference to the use of definite or indefinite. In Lin’s (2007) analysis, he states that the definite object NP requires the same participant in the target and resultant states so that only the discontinuity reading (the reversal meaning under my analysis) is possible, yet the indefinite object NP does not impose such a requirement. With the possibility of a distinct participant involved in the resultant state in (36a), for instance, the handkerchief described by the crying-wet resultant state may or may not be the same as the one in the target state. Therefore ambiguity may be derived. It seems that Lin’s analysis is the most reasonable account for the definite/indefinite asymmetry.

The final problem to be solved concerns the puzzle of ambiguity in some telic events with an indefinite NP, e.g., the ambiguous (36a&b) examples, that I
have delayed the explanation until now. A salient difference between predicates
used in (36a&b) and those in (36c&d) is that the former two are resultative verb
compounds (RVC) in which the second element of the compound, e.g. shi ‘wet’ in
(36a) and huai ‘broken’ in (36b), signals some result of eventuality conveyed by
the first verbal element (Chao 1968, Li and Thompson 1981). A key feature
distinguishes the RVCs in (36a&b) from the other telic events in (36c&d): the
resultant state signaled by the second element of the RVC is predicated of the ob-
ject NP, while the resultant state in (36c&d) refers to the subject NP, the agent
argument of the event. The object NP in (36c) and the locative adjunct in (36d)
function merely as the goal of the event. In other words, following Lin’s proposal
of “different participants”, while it is possible to locate a distinct object NP to
serve as the different participant of the resultant state in the RVC case, the possi-
bility cannot be obtained in (36c&d), in which the participant has been set to be
the definite subject NP. Thus, ambiguity may arise in the RVC guo-construction
but not in other telic events.

Before closing my discussion, let us return to examine an unsolved problem-
atic example (34) containing an RVC presented earlier- dashi wenzi ‘hit-dead (kill)
mosquito’, and see how the approach constructed so far can be applied to this par-
ticular example. As explained previously, the predicate in (34a) contains an ir-
reversible telic event dasi wenzi ‘hit-dead (kill) mosquito’, and hence its use with
guo is ruled-out, just like the reason for this accomplishment’s being ruled-out:
*gai guo zhe dong fangzi ‘built the house before’. Furthermore, the previous dis-

11 The case of (36c)- daoda ‘arrive’ is not treated as an RVC. According to Li and Thompson (1981),
an important characteristic of RVC is its possible occurrence in the “potential form”, e.g. by in-
serting de ‘obtain’ and bu ‘not’ in between the RVC. For example, nong-de/bu-huai ‘can/cannot
break’ is fine but not *dao-de/bu-da ‘can/cannot arrive’. See also Ching-Huei T. Wu (2004) for
further illustration.
cussion also posited that irreversible telic event is possible to use with guo, in which case only the experientiality can be derived. The predicate in (34b) with the occurrence of an indefinite NP, however, presents an ambiguous reading, like those predicates with RVCs in (36a&b). This effect of indefiniteness on RVC apparently is relatively stronger than it is on other telic events in at least two regards- it makes a potentially irreversible event acceptable while co-occurring with guo, and in the mean time imposes an ambiguous reading on the predicate. The effect of indefiniteness in the theme/patient NP on irreversible events to occur in the guo-construction can be further confirmed by the acceptability of the following example:

(37) na ge fangzi si guo haoji ge ren
  that CL house die ASP several CL people

  ‘Several people died in that house.’

Even though dasi ‘hit-dead (kill)’ contains a lexically marked irreversible morpheme si ‘die’, it has been shown that the indefiniteness is able to overturn the morpheme’s inherent incompatibility with the guo. The syntactic feature of indefiniteness exhibits a surprising effect on the semantics of aspect.

5. Conclusion

The chief goal of my analysis is to argue for the semantics of reversibility carried in the aspectual marker guo from the perspective of cognitive grammar. I generalized from a pool of instances frequently discussed in the literature to verify my assumption. To sum up the successful verification, predicates in Mandarin Chinese can be classified with respect to the telicity feature and the likelihood of reversibility following from guo’s inherent meaning of discontinuity. Due to the fact that some events characterized by the verbs are logically irreversible, the ef-
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The effect of reversal after discontinuation of the event does not necessarily take place. It turns out to be the case that some predicates used with *guo* convey the implication of experientiality, others reversibility, and still others ambiguity between either. The atelic events containing *guo* in Chinese, unless being irreversible ones, encode the unanimous sense of reversibility. In contrast, the semantics of *guo* in telic events are complicated, summarized as the following decision tree:

![Decision Tree for Aspectual Interpretation of Guo](image)

**Figure 4: Decision tree for the aspectual interpretation of guo in telic events**

The following events from the last section exemplify the six results of meanings derived from three deciding parameters: **reversibility**, **definiteness** and
being an RVC or not.

(38) I ta gai guo yi dong fangzi
      he build ASP one CL house
      ‘He built one house before.’

ta ying guo saipao
      he win ASP race
      ‘He won that race before.’

II ta dasi guo xuduo wenzi
    he hit-dead ASP many mosquito
    ‘He hit and killed many mosquitoes before.’

III *ta gai guo zhe dong fangzi
     he build ASP this CL house
     ‘He built this house before.’

*ta da-si guo zhe zhi wenzi
    he hit-dead ASP this CL mosquito
    ‘He killed this mosquito before.’

IV ta qu guo yi ci xiang kang
     he go ASP one CL Hong Kong
     ‘He has been to Hong Kong once before.’

V ta nonghuai guo yi bu bijixing diannao
    he make-broken ASP one CL notebook computer
    ‘He broke the laptop before.’

VI ta nonghuai guo zhe bu bijixing diannao
    he make-broken ASP this CL notebook computer
    ‘He broke the laptop before.’

Readers are invited as an exercise to verify how the examples match the results of
varied semantics of *guo* in accordance with the three parameters.

After comparing different approaches analyzing the aspectual meaning of *guo* in the literature, particularly the assumptions from recent studies of Pan and Lee (2004), Lin (2007), and Wu (2008), this paper offers an alternative view toward the semantics of this language-specific and complex aspectual marker. The previous studies agree on two fundamental characterizations carried out by *guo*—denoting a discontinuity of an event at the present time and implying a resultant state following from it. I suggest that, although in principle their observations accurately capture the aspectual meaning of *guo*, the accounts appear to be purely from a temporal perspective. They also fail to point out the fact that the resultant state conveys something other than the temporal nature. As I have argued, the resultant state is better characterized as the reversal of the state at the present time drawing the viewpoint of the speaker back to the pre-existing state in which the event had not occurred. The aspectual function of *guo* exactly stops time at a reference point, from which the ego senses a reversal of eventual properties including not only temporal ones, e.g. from being young to not being young, but also other non-temporal, physical ones such as from being broken to a repaired, well-functioning condition of a laptop. It is in this sense that my hypothesis is grounded in both the temporal and atemporal accounts.

Lastly, it has also been shown in this paper that the unique RVC construction in Chinese and the syntactic feature of indefiniteness in the object NP exhibit surprising effects on the semantics of aspect. In regard to those effects, as discussed in the last section, some explanations have been offered, yet they appear to lack empirical support. It remains as an interesting issue worthy of further examination in future studies. Particularly, with respect to the influence of definiteness on the interpretation of *guo*, an investigation of the intertwining between the meaning of
definiteness and that of aspectuality as a whole may be a right direction to resolve this puzzle.
References


本文主張漢語中動貌標記“過”所具有的「迴轉」語意概念。回顧眾多對“過”語意的探討文獻後，本文指出，傳統分析多強調其「經驗」意涵，而近年來如 Hsiao（2003）、Pan and Lee（2004）、Lin（2007）、Wu（2008）等人的研究，則又過於偏重其衍生出的「結果狀態」，以推演出它的「不連續」意涵。本文雖贊同“過”具有內在的經驗或不連續意涵，然而亦同時認為在其結果狀態中由其不連續的基本語意，尚會延伸出「迴轉」的概念，將一不連續事件中的（時間或物理）屬性帶回至舊有的狀態。此種看法將“過”視為兼具有「時間」及「非時間」的雙重概念。以上分析的理論架構來自於認知語法中，如 Ahrens and Huang（2002），對時間概念隱喻提出的理論：時間應被解讀為移動過一片景物的點，點上附著了面向過去、檢視事件發生的「自我」。若以上述假設來看待“過”的含意，可將“過”視為中斷時間、並提供自我一個觀點，使其得以構思事件的迴轉性質。

關鍵詞：過、迴轉、經驗、不連続、結果狀態、時間／非時間、自我

* 國立東華大學英美語文學系助理教授