Some aspects of 'aspect' in Mandarin Chinese

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Abstract

Previous analyses of the Chinese verb have defined the suffix -le₁ as a marker of 'past completed action' or 'perfective aspect'. Evidence is presented to show that -le, actually indicates 'taxis' or relative tense, specifically the notion of 'anteriority'. The contrasting morpheme zai marks 'simultaneity'. The verbal suffixes -guo and -zhe are shown to express not aspect but rather 'manner of action' (Aktionsart). The only category comparable to aspect in European languages is represented by the sentence-final particles -le₂ and -ne, which do indicate 'entry into a state' and 'continuation of a state' respectively. However, this 'aspeclal' function is only one facet of their overall usage: in general, -le₂ expresses a change or different circumstance, while -ne marks identity.

I. As is well-known, the verb in modern Mandarin Chinese is not marked for tense:

(1) a. zuòtiān
   b. Wǒ jīntiān chī sān- wān fān.
   c. mínghútiān
      I (adverb) eat three-bowl rice
   a. 'I ate three bowls of rice yesterday'.
   b. 'I am eating three bowls of rice today'.
   c. 'I will eat three bowls of rice tomorrow'.

The time of the narrated event relative to the time of the speech act is indicated in the above sentences only by the time adverbs. In connected discourse, this feature is often not marked at all in Chinese, the reader or listener being left to infer it from the context.

The Chinese verb may be accompanied by various functional markers, one of which is the enclitic particle -le:¹
(2) Wǒ chī-le₁, sān- wǎn fán.
I eat-le₁, three-bowl rice
‘I ate three bowls of rice’.
(3) a. zuòtiān
b. Wǒ jǐntiān chǐ-le₁, sān- wǎn fán (yǐhou), jiǔ juéde hěn shūfū.
c. ‘Yesterday (adverb) eat-le₁, three-bowl rice (after) then feel very comfortable’
   a. ‘(After) having eaten three bowls of rice yesterday, I felt very comfortable’.
   b. ‘(After) having eaten three bowls of rice today, I feel very comfortable’.
   c. ‘(After) having eaten three bowls of rice tomorrow, I will feel very comfortable’.

Sentences with -le₁ typically refer to past time, misleading some researchers into interpreting -le₁ as a marker of ‘completed past time’: Dragunov (1952: 129) and Jakhontov (1957: 115). However, examples like (3a–c) show that its use is independent of tense. Most writers on the subject have analysed -le₁ as an indicator of ‘completed action’ or ‘perfective aspect’: see e.g. Liu (1964: 74), Wang (1965: 458), Hashimoto (1971: 6ff.), Teng (1973: 14) and Henne, Rongen and Hansen (1977: 117).

This analysis fails to account for the relationship of the following sentences:

(4) a. Tā nián -le₁, sān- nián Zhōngwén.
   He study-le₁, three-year Chinese
   a. ‘He studied Chinese for three years’.
   b. ‘He has been studying Chinese for three years’.

Sentence (4b) differs from (4a) by the addition of -le₂, whose function is to indicate entry into a state, or ‘inchoative aspect’, as will be discussed below (see also Teng, 1973). A priori, we would not expect to find a sentence marked as both ‘perfective’ and ‘inchoative’. More importantly, in sentence (4b), which contains -le₁, the action expressed by the verb is NOT completed.

It is hardly attractive to assume that -le₁ marks ‘completed action’, except when it co-occurs with -le₂, where this meaning is absent. Furthermore, the contrast of (5) and (6) shows that the meaning of -le₁ is not simply cancelled out by -le₂:

(5) Tā hē- le₁, jiǔ- le₂,
   he drink-le₁, wine-le₂,
   ‘He has drunk (some) wine’.

(6) Tā hē jiǔ-le₂,
   ‘He drinks wine (now)’ (he didn’t used to).

If -le₁ does not express ‘perfective aspect’, what is the common denominator in its usage? The answer is that -le₁ marks not aspect, but what Jakobson (1971: 135) calls ‘relative tense’ or ‘taxis’. Taxis is not the time of a narrated event in relation to the speech event (‘tense’ proper), but rather the time of one narrated event in relation to another. Specifically, -le₁ indicates anteriority, i.e. that one event is prior to another. This function is most clear in examples like (3a–c). To understand the remaining examples, we may compare the interaction of tense and taxis in the Latin verb system (see Kuryłowicz, 1964: 90ff.).

Any Latin verb in the indicative mood is marked for both tense (past, present, future) and for taxis (anterior or non-anterior). This may be schematized as in figure 1.

![Diagram](attachment://figure1.png)

Figure 1
The forms of the ‘infectum’ are [−anterior], and dīcēbat, dīcit and dīcet indicate respectively past, present and future time pure and simple: ‘he said’, ‘he is saying’, ‘he will say’.\(^4\) The forms of the ‘perfectum’ are [+anterior], and dīkerat indicates an action prior to another in the past (‘he had said’), while dīkerit expresses an action prior to another in the future (‘he will have said’). Likewise, dīxīt indicates an action prior to another in the present. Since a genuine present action (i.e. [+present, −anterior]) will necessarily be simultaneous with the speech event, an action which is marked as anterior to that will equate to a preterite in English: dīxīt ‘he said/has said’. From the Latin point of view, however, the tense is present.

In Chinese, where there is no verbal category of tense, -le\(_1\) fills the role of the entire Latin perfectum, as shown by examples (3a–c).\(^5\) However, in Chinese as elsewhere, the functionally ‘unmarked’ tense is the present. Thus example (1) with no time adverb will, in the absence of information to the contrary, be interpreted as ‘I eat/am eating three bowls of rice’. Similarly, then, sentences (2) and (4a), which are marked by -le\(_1\) as [+anterior], will normally be interpreted as [+anterior, +present], thus like Latin dīxīt equating to an English preterite.\(^6\)

Example (4b) remains to be accounted for. In order to understand (4b), we must first define more closely the function of -le\(_2\), which marks entry into a state, or so-called ‘inchoative aspect’.\(^7\) More precisely, -le\(_2\) implies an (unspecified) starting point for the condition expressed by the predicate, but no end point: schematically, /A–. Thus in (6), -le\(_2\), implies that the condition of his drinking has not always existed, but that it began at some point, now exists, and may exist indefinitely. In (6), the starting point is unspecified, but it may be more closely defined in various ways:

\[ \text{(7)} \quad \text{tā kuài lài–le\(_2\),} \]
\[ \text{he soon come-le\(_2\),} \]
\[ \text{‘He is coming soon’.} \]

\[ \text{(8)} \quad \text{tā lài–le\(_1\), wǒ jiù kěyì zǒu–le\(_2\),} \]
\[ \text{he come-le\(_1\), I then can leave-le\(_2\),} \]
\[ \text{‘When he comes, then I can leave’.} \]

\[ \text{(9)} \quad \text{wàng xiǎnshēng lài–le\(_2\),} \]
\[ \text{Wang Mr. come-le\(_2\),} \]
\[ \text{‘Here comes Mr. Wang/Mr. Wang is coming!’} \]

In (7) the starting point for his entry into the state of coming is specified as being ‘soon’. In (8) the condition of my being able to leave is predicated on the prior event of his coming. In (9) the starting point for his coming is set by extralinguistic factors: as pointed out by Thompson (1968: 73), sentence (9) is appropriate from the moment Mr. Wang comes into view up to the time he actually arrives.

Turning now to (4b), we see that -le\(_2\), indicates that the condition of his studying Chinese began at some point, now exists, and may continue to exist. Furthermore, -le\(_1\) shows that the starting point for this condition was anterior to something (anterior to the present, unless otherwise specified).\(^8\) In this example, the time from the entry into the condition until the present is also specified by sān-nián ‘three years’, but this is not necessary. Compare (10) with (2):

\[ \text{(10) wǒ chī-le\(_1\) sān–wān fán-le\(_2\);} \]
\[ \text{I eat-le\(_1\) three-bowl rice-le\(_2\);} \]
\[ \text{‘I have eaten three bowls of rice’.} \]

Sentence (2) with -le\(_2\), says merely that the action expressed by the verb is anterior (to the present). In sentence (10) the addition of -le\(_2\) implies that that action produced a condition which still exists (and may continue to exist). Thus (10), ‘I have eaten three bowls of rice’, could appropriately follow (11):

\[ \text{(11) nǐ è bù è? Bù è.} \]
\[ \text{‘Are you hungry? No, I’m not’.} \]

On the other hand, (2), ‘I ate three bowls of rice’, would be a rather peculiar response in this context, since in the absence of -le\(_2\), there is no necessary connection between the act of eating and the present time. The combination of -le\(_1\) and -le\(_2\) thus equates roughly to one of the uses of the English present perfect (‘present relevance’).

Therefore by retaining the received interpretation of -le\(_2\) as marking ‘entry into a state’ (as defined above), and by reinterpreting -le\(_1\), not as a ‘perfective’ marker, but as the sign of ‘anteriority’, we may account for all uses of -le\(_1\), both alone and in combination with -le\(_2\).

II. The status and interaction of -le\(_1\) and -le\(_2\) are complicated by the facts of negation in Chinese. The normal marker of negation is bu, which ordinarily appears before the predicate:

\[ \text{(12) wǒ bù chī sān–wān fán.} \]
\[ \text{‘I do not eat three bowls of rice’.} \]

There is one exception to this: before the verb yǒu, which expresses existence, the negative appears as méi:

\[ \text{(13) a. zhuōzǐ–shāng yǒu shū.} \]
\[ \text{table–on exist book} \]
\[ \text{‘There are books/is a book on the table’.} \]

\[ \text{b. zhuōzǐ–shāng méi (yǒu) shū.} \]
\[ \text{‘There are no books/there is no book on the table’.} \]
Except in sentence-final position, méi yòu may be optionally reduced to méi. This exceptional deletion of the main verb is undoubtedly made possible by the fact that méi occurs only before yòu, so that the deleted verb is always recoverable.

Compare now (14), which is the negative counterpart of both (2) and (10):

(14) Wò méi (yòu) chī sān–wān fān.
I didn’t eat/haven’t eaten three bowls of rice.

One is immediately struck by two facts: first, the negative sentence contains a yòu which does not appear in the positive sentence; second, neither -le₁ nor -le₂ appears in the negative sentence. These facts are discussed by Wang (1965), who presents sound evidence involving the question transformation to show that -le₁ and yòu are suppletive allomorphs of the ‘aspect’ marker, and that in the underlying structure this marker is generated as yòu preceding the verb. Thus the underlying structures of (2) and (14) would be:

(2) Wò yòu chī sān–wān fān.
Wò NEG yòu chī sān–wān fān. (first interpretation)

In (14) the verb yòu conditions méi as the form of the negative marker; no other changes take place. To produce the surface form of (2), we must assume an obligatory transformation which, in the absence of NEG, moves the yòu after the verb and changes it to -le₁.

I believe that Wang’s analysis is essentially correct, except that for reasons outlined above I interpret yòu ~ -le₁ as a marker of taxis, specifically of anteriority. Since yòu behaves like a verb with respect to negation and question formation, I also suggest that it be analysed as the existential verb yòu functioning as an auxiliary, very much like ‘have’ in English.

There are some further complications involving yòu ~ -le₁ and negation. First of all, there is the ‘experiential’ marker -guo which always occurs as a suffix to the verb and which indicates that the subject has performed an action at least once:

Zhang San eat-guo raw-fish
‘Zhang San has eaten raw fish (before)’.

b. Zhāng Sān méi (yòu) chī-guō shēng-yū.
Zhang San hasn’t eaten raw fish (before)’.

Since -guo means that someone has experienced something, the action is necessarily [+ anterior], and we are not surprised to find the marker of anteriority present in the negative sentence (15b). The surface form of the positive sentence (15a) forces us to assume a condition on our transformation of yòu-movement: when the verb is already followed by another suffix, yòu is simply deleted, and -le₁ never appears. We shall see below that this is not an ad hoc condition required by the facts of -guo, but a general rule involving other verbal suffixes.²

Wang sets up a compound ‘aspect’ yòu-guō beside yòu. This analysis should be rejected for two reasons. First, while there is good evidence to show that yòu precedes the verb in underlying structure, there is no evidence to show that -guo ever precedes the verb. Second, it is true that -guo will occur only when yòu is also present (though not vice-versa). As stated above, this is due to the meaning of -guo itself. However, the functions of yòu and -guo are quite different. While yòu ~ -le₁ marks one action as anterior to another, -guo says something about the nature of an action. Therefore these should be treated as two different types of verbal markers: yòu ~ -le₁ is generated as an auxiliary preceding the verb and marks anteriority, while -guo is generated as a suffix to the verb and marks the action as having been experienced at least once.

I have not yet accounted for the second interpretation of (14): ‘I have not eaten three bowls of rice’. One may note that -le₂ does not appear in this sentence. There are two possible explanations: (1) it is in the underlying structure, but is deleted by some mechanism; (2) it is not in the underlying structure. I believe that the second alternative is correct, for the following reason. Let us look at the underlying structure which would be required if we assumed that -le₂ were present in (14):

(14) Wò NEG yòu chī sān–wān fān le₂.

According to the meanings we have established for yòu ~ -le₁ and for -le₂, the only possible reading for this structure would be: entry into a state brought about by an anterior action (eating), THE EXISTENCE OF WHICH IS DENIED. As already noted by Teng (1973: 32), this structure is semantically ill-formed.

Strictly speaking, then, there is no negative counterpart in Chinese to (10). In other words, the difference expressed in English by ‘did not eat’ versus ‘have not eaten’ is not present in Chinese. This is hardly shocking. It should be clear by now that the verbal categories of Chinese and English do not correspond even remotely. The fact that the combination of -le₁ and -le₂ happens to produce a meaning roughly equivalent to the English present perfect in one of its uses should not mislead us into equating the Chinese and English structures. Nor should we expect them to behave in parallel fashion with respect to other parts of the grammar, such as negation.
III. Wang’s analysis of yóu and -le₁ as suppletive forms of one morpheme has been criticized by Teng (1973), who presents three pieces of counterevidence. First, there are cases where both yóu and -le₁ occur. Compare the following:

(16) a. Tā mái-le₁ táde chē
   he sell-le₁ his car
   ‘He sold his car’.

b. Tā méi (yóu) mái táde chē.
   ‘He didn’t sell his car’.

c. Tā bā táde chē mái-le₁.
   ‘He sold his car’.

d. Tā méi (yóu) bā táde chē mái-le₁.
   ‘He didn’t sell his car’.

The facts of (16a, b) are accounted for by the analysis given above for (2) and (14), but in (16c, d), where the direct object has been brought forward and marked with bā, we seem to find evidence for both yóu and -le₁. Note, however, that (16c, d) are entirely equivalent to (16a, b) respectively (except for a slight difference in emphasis). Furthermore, this case is parallel to the following:

(17) a. Tā shuō-le₁ ji- jù.
   he say- le₁ few-sentences
   ‘He said a few words’.

b. Tā méi (yóu) shuō ji-jù.
   ‘I went to look for him yesterday, but he wasn’t at home’.

c. Tā shuō-le₁ méi (yóu) jìjù.
   ‘I went to look for him yesterday, but he wasn’t at home’.

This example is taken from Teng (1974: 138), who states that, however we are to account for the peculiar word order of (17c), it is clearly equivalent to (17b), and (17a–c) are all simplex sentences. I agree and suggest that (16d) and its relationship to (16a–c) should be treated likewise.

To clarify the situation, consider the following negative sentence with bā but without the anteriority marker:

(18) Tā bā bā táde chē méi-gěi wó.
   he NEG bā his car sell-to I
   ‘He isn’t selling his car to me’.

This example shows that the feature common to (16d) and (17c) is the position of the negative: on the surface it does not directly precede the verb. The underlying structures are the following:

(16) d. Tā NEG yóu mái táde chē.
(17) c. Tā NEG yóu shuō ji-jù.

In the presence of yóu, the negative appears as méi. In (16d) the direct object is then moved in front of the verb (including the auxiliary) and marked with bā, producing tā méi bā táde chē yóu mái. The yóu-movement rule then produces the surface sentence tā méi bā táde chē mái-le₁. Similarly, in (17c) the negative has optionally been moved in front of the direct object, yielding tā yóu shuō méi jìjù. Once again the yóu-movement rule gives the surface order: tā shuō-le méi jìjù. Since in all other instances other than sentence-final position, méi and méi yóu are interchangeable, speakers may then falsely expand méi in (16d) and (17c) into méi yóu, thus giving the appearance that the anteriority marker appears twice. Example (18), however, shows that it is really only the negative which appears before bā. Sentence (16d), then, is only an apparent counterexample to the suppletion of yóu and -le₁.

Teng’s second objection is that there are negative sentences with méi (yóu) whose positive forms do not have -le₁. These are of two types. The first is exemplified by (19) and (20):

(19) Duibqí, wò zuòtiān méi (yóu) néng lái.
   sorry I yesterday NEG can come
   ‘Sorry, I couldn’t come yesterday’.

(20) Wò zuòtiān qù zhāo tā, kēshí tā méi (yóu) zài jiā.
   I yesterday go seek he, but he NEG be-at home
   ‘I went to look for him yesterday, but he wasn’t at home’.

Here we have verbs expressing a state (néng ‘can’ and zài ‘be at’), which cannot cooccur with -le₁ in positive sentences, but which are negated by méi (yóu). This seems to argue for a morpheme yóu separate from -le₁.

Teng claims that for most speakers of Mandarin, méi (yóu) in the above sentences is freely interchangeable with bu. If this is true, then méi (yóu) once again is merely a variant of the negative marker, and the yóu has no functional significance. That is, just as in (16d) and (17c) above, méi may be falsely expanded into méiyóu in contexts where only the negative marker méi is semantically justified.

The question remains as to why the negative appears as méi if there is no genuine (functionally significant) yóu in the underlying structure. The answer may be found in the discussion of this type by Chao (1968: 731–732). Chao claims that for some speakers, negative sentences like (19) and (20) with méi differ in meaning from the same sentences negated with bu. According to this view, the English translations given above are correct only for the sentences with bu, where the verbs néng and zài express a state, as usual. The sentences as given with méi mean rather:

(19) ‘Sorry, I didn’t succeed in coming/manage to come’.
(20) ‘I went to look for him yesterday, but he didn’t happen to be at home’.

In effect, in the presence of méi (yoù), the state verbs néng and zai function as action verbs, which express an event, not a state. Since the event is anterior (to the present), the presence of yōu marking anteriority is justified, in fact expected. The difference between bù néng lai and méi (yoù) néng lai in this dialect is comparable to that in Spanish between (no) podia venir ‘he was (not) able to come’ and (no) pudo venir ‘he did (not) succeed in coming’.

In Chinese this contrast is possible only in the negative. This restriction is undoubtedly due to the fact that this use of méi (yoù) with state verbs like néng and zai is analogous to its use with action verbs. That is, it is the existence of forms like méi (yoù) lai ‘didn’t come’ which permits the reading of néng as an action verb in méi (yoù) néng lai ‘didn’t succeed in coming’. Based on Teng’s evidence, for some speakers the analogy is purely formal: méi (yoù), the negative marker with anterior events, is also used as the negative marker of anterior states, thus freely interchanging with bu in this context. For some speakers, then, the yōu in examples like (19) and (20) is functionally justified as the marker of an anterior event; for others it is functionally empty. In both cases, the non-appearance of -le1 in the corresponding positive sentences is not only understandable but in fact predictable.

The second type of sentence where the negative méi (yoù) does not correspond to -le1 in the positive form is rather different:

(21) a. Tā bì -zhe yānjīng.
    he close-zhe eye
    ‘He has/had his eyes closed’.
b. Tā méi (yoù) bi-zhe yānjīng.
    ‘He does/did not have his eyes closed’.

(22) a. Dàmén suō- zhe.
    big door lock-zhe
    ‘The gate is/was locked’.
b. Dā-mén méi (yoù) suō-zhe.
    ‘The gate isn’t/wasn’t locked’.

According to Wang’s analysis, which I have followed, the appearance of méi (yoù) in the negative forms (21b) and (22b) implies that their positive counterparts (21a) and (22a) should contain -le1. Teng points out that -le1 does not in fact appear there. Since he interprets -le1 as ‘perfective aspect’ and -zhe as ‘progressive’ or ‘continuative’, Teng also claims that a configuration of -le1 plus -zhe would be semantically ill-formed. Thus the yōu in (21b) and (22b) which cooccurs with -zhe cannot be equated with -le1.

This analysis is faulty not only from the side of -le1, which marks anteriority, but also from the side of -zhe, which does not mean ‘progressive’, a fact shown by Teng’s own examples:

(23) Tā chuān- zhe xiézì. [negative méi (yoù)]
    he put-on-zhe shoe
    ‘He is/was wearing shoes’.

(24) Tā zai chuān-zhe xiézì. [negative bu]
    ‘He is/was putting on shoes’.

It is clear from (24) that the genuine marker of ‘progressive’, i.e. of an on-going action, is zai preceding the verb. When we note the position of zai, its complementary distribution with yōu ~ -le1 (note especially the negatives of 23 versus 24), and its meaning (an action going on at the time of another action), it becomes obvious that zai is another marker of taxis in Chinese: namely, of simultaneity. Like yōu ~ -le1, it is independent of tense, as shown by (24) and (25):

    I yesterday see he when he zai put-on-zhe shoe
    ‘When I saw him yesterday, he was putting on shoes’.

As in the case of yōu ~ -le1, when the tense is not otherwise indicated, it is taken to be the present, and the unmarked reading of (24) is: ‘He is putting on shoes’.

On the other hand, (23) makes it evident that -zhe marks not ‘progressive’, but rather ‘durative’. It is independent of tense, as shown by (23), and also independent of taxis, as shown by (23) versus (24). However, since an on-going (simultaneous) action is usually viewed as taking a certain amount of time, -zhe often cooccurs with zai. The nuance added by -zhe in (24) can perhaps be rendered in English as: ‘He is/was engaged in (the process of) putting on shoes’.

If we now reexamine (21), (22) and (23), we see that their meaning not only permits, but in fact requires the presence of yōu ~ -le1 in their underlying structure. The actions of closing his eyes, locking the door, and putting on shoes are all anterior (to the present). In effect, (21) means ‘He closed his eyes and has kept them closed’, (22) ‘Someone locked the door, and it is (still) locked’, (23) ‘He put on shoes and has them on’. Thus (23) tā (méi) yōu chuān-zhe xiézì ‘He is (not) wearing shoes’ combines anteriority and duration, while (24) tā (bù) zai chuān-zhe xiézì ‘he is (not) engaged in putting on shoes’ combines simultaneity and duration.

Functionally, then, the cooccurrence of yōu ~ -le1 and -zhe makes sense.
In (27a) the scope of negation includes only the lower sentence, but in (27b) it includes the higher sentence. As presented in detail in Teng (1974), this difference may be most elegantly captured by assuming that ouch ‘often’ is a higher predicate which has tā lái ‘he comes’ as its subject. In (27a) the lower S is negated, in (27b) the higher S.

In order to produce the surface forms of (27a) and (27b), we need two transformations: first, a general rule of negative lowering or placement which places the negative marker before the next lower predicate; second, a predicate-lowering rule which lowers time adverbs functioning as higher predicates in front of a lower predicate. This rule also accounts for the behaviour of ‘external modals’ in Chinese — for a full justification see Teng (1974).

Let us now look at a negative sentence with -le2:

(28) a. Tā hē jiǔ -le2.
   ‘He drinks wine (now).’ (he didn’t use to)

b. Tā bù hē jiǔ-le2.
   ‘He doesn’t drink wine any more’.

As Teng correctly points out, the only reasonable interpretation of (28b) is: ‘It has come about that [NEG he drinks]’ or ‘He has entered a state of not drinking’. That is, the scope of negation does not include -le2, leading Teng to interpret -le2 as a higher predicate.

However, he realizes that the parallel with (27a, b) predicts that there ought to be another negative corresponding to (28a): ‘NEG it has come about that [he drinks]’. He claims that in fact there is one:

(29) Tā hào bù hē jiǔ.
   ‘He doesn’t drink (wine) yet’.

In order to make (29) the negative of (28a), Teng has to make the following explicit claim (1973: 28): ‘‘NEG it has come about’’ is to be understood as equivalent to the meaning of ‘‘it has not yet come about’’.

Likewise, he must claim that the negative of (10) is not (14), but (30):

(10) Tā chī-le1 sān-wān fān-le2.
   ‘He has eaten three bowls of rice’.

(14) Tā mèi (yǒu) chī sān-wān fān.
   ‘He hasn’t eaten three bowls of rice’.

(30) Tā hào mèi (yǒu) chī sān-wān fān.
   ‘He hasn’t three bowls of rice yet’.

This is patently incorrect. No description of Chinese I am aware of gives hai mèi (yǒu) as the negative of -le1 ... -le2, but simply mèi (yǒu). It is easy
to see why. Sentence (14) is the simple negation of (10) with no further implication, but (30) adds the implication that the subject may eat three bowls of rice in the future. Thus (30) is not a negative of (10). Likewise, (29) adds an implication not present in (28a) and is not a simple negative of it. The only negative corresponding to (28a) is (28b): 'He doesn't drink any more'. Yet there is nothing semantically ill-formed about the underlying structure 'NEG it has come about that [he drinks]'.

If -le₂ is to be derived from a higher predicate, it is difficult to see why such a negative form does not exist.

If Teng's analysis of -le₂ as a higher predicate is problematic, then how are we to account for the fact that -le₂ is not within the scope of the negative in (29b)? Formally, we may accomplish this with an S notation, allowing the category 'sentence particle' to be under S, but not under S, and thus not within the scope of the negative.

The question then becomes: is there any independent evidence for such an analysis? We may recall that Teng's reason for denying that -le₂ is a sentence particle is the fact that it does not come under the scope of the negative. However, the following sentences show that this is also true of other sentence particles:

(31) a. Tā hē jiū-ma?
   'Is it true that he drinks (wine)'
   b. Tā bù hē jiū-ma?
   'Is it true that he doesn’t drink?'

(32) a. Tā hē jiū-ba?
   'He drinks, doesn’t he?'
   b. Tā bù hē jiū-ba?
   'He doesn’t drink, does he?'

As pointed out by Hashimoto (1971: 19ff.), questions formed with the particles -ma and -ba are not neutral. In each case, the question presupposes the truth of the corresponding statement. The presupposition is stronger with -ba than with -ma: the English translations give an approximation of the degree of presupposition. Like -le₂, -ma and -ba are not within the scope of the negative. I know of no independent motivation for interpreting -ma and -ba as higher predicates. The only negatives of (31a) and (32a) are (31b) and (32b). Compare (28a, b) and contrast the situation in (27a–b).

Whatever proves to be the correct formal solution, the fact that -le₂ does not fall within the scope of negation is not a feature peculiar to it, but one which it shares with other sentence particles. Therefore this feature cannot be used to argue that it is a higher predicate, and I retain the older interpretation of -le₂ as a sentence particle.

V. There remains one further morpheme to be discussed in connection with 'aspect' and the Chinese verb: the sentence particle -ne. Rygaloff (1973: 114) defines -ne as the marker of 'non-changement'. In positive terms, -ne means 'continuation of a state', as opposed to -le₂, which indicates 'entry into a state'. More precisely, -ne implies neither starting point nor end point for the action expressed by the verb: schematically, -A→. Here are some typical examples:

(33) Tā hai mei (yóu) lai- (ne).
   he yet NEG ant. come-ne
   'He hasn’t come yet'.

(34) Wò fúqín hai huó-zhe(-ne).
   my father still live-zhe(-ne)
   'My father is still living'.

(35) Wòmen (zhéng) zai chǐ-zhe fán- (ne).
   we just simul eat-zhe rice ne
   'We are just now eating'.

As indicated by Rygaloff, virtually any action which is on-going or viewed as having duration may also be said to be continuing. Hence the frequent cooccurrence of -ne with zai, the marker of simultaneity, and/or -zhe, the marker of duration. Often there is little discernible difference between the various combinations zai ... -zhe ... -ne, zai ... -zhe, zai ... -ne, or -zhe ...

-né.

However, Rygaloff is mistaken in implying that the addition of -ne is always redundant. A sentence like (33) without -ne includes only one presupposition: namely, that the subject is expected to come in the future. The addition of -ne implies that he was expected to come before now: his (continued state of) non-arrival is contrary to expectation (see Dragunov, 1952: 146–147). Similarly, Thompson (1968: 73) points out that example (34) without -ne is a general statement of fact. With -ne, it would be appropriate in a situation where the speaker’s father is known to be seriously ill. The speaker is insisting that his father is still alive, against the possible expectation that he is not.

Chao (1968: 803) offers examples to show that -ne may indicate a fact contrary to expectation even where ‘continuation of a state’ does not seem to be present:

(36) Tā hái hui chē-huáng-ne.
   he even can pull-lies- ne
   'He can even tell lies'. (I didn't think he was that clever)

(37) Hòu-yuán hái yóu yì-gé jīn- yú- chí- ne.
   back-yard even exist a gold-fish-pond ne
   'There is a goldfish-pond in the backyard too!' (to my surprise)
Chao (1968: 802) also cites one more function of -ne, to reinforce the expression of the equative degree:

(38)  You yibai chi ne, shen de hen-ne.
      attain 100 foot ne deep very ne
      'It's as much as a hundred feet, it's very deep'.

These three functions of -ne (continuation of a state, fact contrary to expectation, reinforcement of equative degree) do not seem related: what is the common denominator? I suggest that the basic function of -ne is to indicate identity: in the case of the equative, identity of the two things being compared; in the case of continuation of a state, identity of the current state with a past one. That is, the situation remains the same: a given state continues. The implication that something is contrary to expectation is apparently a nuance which accrues to -ne secondarily due to the circumstances of its use (e.g. frequent cooccurrence with hāi 'still; yet').

I am led to this analysis by a striking parallel from an unlikely source: the Hittite language of ancient Anatolia. Hittite possesses an enclitic particle -pat, whose basic function is to mark identity, as shown convincingly by Hart (1971), from whom most of the following examples are taken:

(39) aššar ma LUBARUMTIM arantari-pat.
      assembly-but foreigners stand-pat
      'But the assembly (and) the foreigners remain standing'.

(40) nu INA 5 MUSI INA É LUGAR aranta nu
      and in 5 nights in stable they stand and
      ŠA.GAL aššiškanzi GE-ti GE-ti-ma turiškizzer -pat.
      fodder they eat night night- but he hitches up-pat
      'They (the horses) stand in the stable five nights and eat fodder, but he continues to hitch them up every night'.

(41) nu-za mān irmalanza ėsta, ĖTUÁš, -ma-ṭta
      and (part.) although ill you were His Majesty-but-you
      ANA AŠAR ABI-KA tittanu-pat.
      in place your-father I put -pat
      'Although you were ill, I, His Majesty, went ahead and put you in the place of your father'.

(42) namma-za-kan DINGIR.MEŠ-aš ėštarma zik-pat
      further (part.) gods (dative) among you-pat
      ĖTU ḪUR Arinna nakkiš šalliš-a-z
      Sun-goddess (of) A. important great-and-(part.)
      zik-pat ḪUR Arinna.
      you-pat Sun-g. of A.

Furthermore, it is you, the Sun-goddess of Arinna, who are important among the gods, and it is you, the Sun-goddess of Arinna, who are great'.

The first two examples, (39) and (40), illustrate the use of -pat to express continuation of a state. It should also be noted that turiškizzer in (40) is an iterative-durative form of turiya- 'yokes, hitches up'. The frequent cooccurrence of -sk- forms with -pat in Hittite is directly comparable to that of -zhe with -ne in Chinese. Example (41) shows how -pat, like -ne, comes to imply a fact contrary to expectation. This use of -pat is more common with reference to continuation of a state, but example (41) shows that in this function -pat was extended to other situations as well (cf. (36) and (37) above with -ne). In example (42), -pat may be said to be 'emphasising', but this usage also derives from the basic function of expressing identity. The use of -pat insists on the identity of the subject and the predicate adjective: it is you who are important/great (and no one else).

I do not wish to overstate the parallelism between -pat and -ne. The former is also used with nouns and pronouns to express 'the very (same) X' or the emphatic 'X itself'. There is nothing comparable to this in the usage of -ne in Chinese. Nevertheless, I believe that the Hittite parallel does show how the three different uses of -ne in Chinese may be accounted for starting with one basic function: the expression of identity.

VI. Our investigation has led to the conclusion that the term 'aspect' has been too freely applied to what are three fundamentally different verbal categories in Chinese. Furthermore, these different functions are matched by formal differences. Taxis, or relative tense, is indicated by markers which precede the main verb in the underlying structure: yōu for 'anteriority' and zai for 'simultaneity'. Manner of action is expressed by verbal suffixes: -guo for 'experience' and -zhe for 'duration'. The only function even comparable to aspect in European languages is carried by sentence-final particles: -le2 marks 'entry into a state', -ne 'continuation of a state'. However, the 'aspectual' functions of these particles are only one facet of their more general meanings: -le2 expresses a change or new circumstance, while -ne marks identity.

The only syntactic transformation immediately affecting these morphemes is that of yōu-movement, which in the absence of a negative moves yōu after the verb. In the presence of another suffix, the yōu is deleted; otherwise it appears as -le1.

These results may be conveniently summarized as follows:
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shihou, tā nián-le, sān-nián Zhōngwén(-le) ‘Last year when I met him, he had studied Chinese for three years’; had been studying Chinese for three years’.

9. As Teng (1973: 19–20) rightly claims, Wang's formulation of yǒu-movement in Language 41(1965), 465 makes deletion of yǒu in the presence of -guo optional, a position Teng shows to be untenable. The correct formulation is given in the original version of Wang's article in Project on Linguistic Analysis No. 6 (Ohio State Univ.) 1964, p. 134. Here Wang also has the deletion of yǒu apply obligatorily in the presence of -le as well as -guo (see below).

10. It is not clear why the verb is interpreted as passive in this sentence, but this feature is surely irrelevant to the matter at hand.

11. In the reading given, Sentence (26) is of course ambiguous, since the single surface -le could also be taken as -le1 alone (‘He came’) or as -le2 alone (‘He is coming’/’Here he comes’).

12. More precisely, when the verb does not already have another suffix marking one of the verbal categories. Resultative and directional suffixes do cooccur with -le1; chi-wǎn-le; ‘eat up/finish eating’, nà-chí-lài-le, ‘take out’.

13. This is confirmed by the parallel cited by Teng (1973: 32). The auxiliary verb kāishi ‘begin’, which is grammatically very close to ‘entry into a state’, occurs within as well as outside the scope of the negative: tā bā kāishi gōngzuò ‘He doesn’t begin to work’ beside tā kāishi bú gōngzuò ‘He begins not to work’ (grammatical in Chinese according to Teng).

14. There is also a serious formal problem with Teng’s analysis of -le2 as a higher predicate. Let us assume that (14) (or for that matter (30)) is the negative form of (10): 'NEG it has come about that [the eats three bowls of rice]’. According to Teng’s own negative placement rule, which is well-motivated, the negative should be lowered in front of the NEXT LOWER predicate. This means that it should be lowered in front of the ‘inchoative verb’ -le2 ‘it has come about’. In order to produce the surface form of (14) or (30), Teng must assume that in this case, and in this case alone, the negative is lowered in front of the second lower predicate yǒu chí. This is manifestly ad hoc, as is the accompanying deletion of -le2. The sentence particle -le2 does not appear in (14) because it is not present in the underlying structure at all, for reasons given above.

15. I use the label ‘sentence particle’ as a cover term. As one would expect from their functions, the ‘aspect’ markers -le2 and -ne can cooccur with the question particles -ma and -hэ. Thus a complete account of sentence particles will have to include more than one functional 'slot'.

16. Along with Chao (1968: 801f.) I assume that the -ne marking continuation (originally -ni and preserved as such in some dialects) is distinct from the -ne appearing in questions. Huang and Stimson (1976: 204–205) also distinguish 'continuous' -ne from that used in questions. The discussion here is limited to 'continuative' -ne (ni).

17. Each of these sentences does of course express a state or condition, but the point is not that the condition is continuing, but that its existence is surprising. Note that hai here means ‘even’, not ‘still’.

18. In subsuming -guo under the heading ‘manner of action’, I am admittedly motivated in part by formal criteria, not functional ones: -guo appears in the same position as, and is in complementary distribution with, -zhe the durative marker. Since -guo does say something about the nature of the action, simplicity leads me to place it in the same category as -zhe until evidence is presented to the contrary.
References