Syntax and semantics in the history of Chinese

I

The philosophy of language comes in three varieties.
1. The functionalist’s view: linguistic forms are instruments used to convey meaningful elements. This is the basis of European structuralism.
2. The formalist’s view: linguistic forms are abstract structures which can be filled with meaningful elements. This is the basis of generative grammar.
3. The parasitologist’s view: linguistic forms are vehicles for the reproduction of meaningful elements. This is the view which I advocated twelve years ago in a Festschrift (1985).

In a formalist’s theory of language, syntax necessarily deals with relations between formal elements in abstract structures. In a functionalist’s theory of language, syntax is an ambiguous concept: it deals either with relations between formal elements used to convey meanings or with the formal expression of relations between meaningful elements. In the theoretical framework to which I subscribe, syntax deals with relations between meanings which can be reproduced through formal expression. The syntax of formal elements is futile in this conception because one cannot know a tree by the shadow it casts on the wall of a cave.

The starting-point adopted here has important consequences for the nature of syntactic research. In his discussion of nexus and the birth of syntax, Jeroen Wiedenhof adduces the following examples (1996: 141f.):

(1)  山水
shān shuǐ
mountain water
‘mountains and rivers’

(2)  山水
shān shuǐ
mountain water
‘water from the mountains’

While the formal relations between shān and shuǐ in (1) and (2) are limited to their relative positions in time and perhaps in prosodic arrangement (l.c.), the relations between their meanings belong to a number of different types. Wiedenho notes that (1) shān shuǐ ‘mountains and rivers’ differs from shuǐ shān ‘water and mountains’ in “highlighting the visual appearance of the mountains and rivers” and is therefore a set expression designating ‘natural scenery or landscape of mountains and rivers’. The meaning of (2) shān shuǐ...
‘water from the mountains’ is again quite different because the expression “refers to water, not to mountains” (Wiedenhof, l.c.). Here the referent of shān ‘mountains’ differs from the referent of shuǐ ‘water’ but distinguishes the latter from those referents of shuǐ ‘water’ which are not referents of shān shuǐ ‘water from the mountains’. Thus, we arrive at three different meanings of shān shuǐ:

(1a) There is an entity X which consists of P and Q; P is the referent of shān and Q is the referent of shuǐ.
(1b) There is an entity X of which P and Q are visible parts; P is the referent of shān and Q is the referent of shuǐ.
(2a) There is an entity X which is identical with Q and qualified by P; Q is the referent of shuǐ and P is a virtual (imagined) referent of shān.

As Wiedenhof points out, the latter meaning “represents a conceptual advancement”: syntax “provides a means to apply existing signs to new ends” (l.c.).

Consider now the following examples:

(3) 高山
gāo shān
‘high mountain’

(4) 山高
shān gāo
‘the mountain is high’

The relation between the meanings of gāo and shān in (3) gāo shān ‘high mountains’ differs from the relation between those of shān and shuǐ in (2) shān shuǐ ‘water from the mountains’ in two respects. Firstly, the property of being high is carried by the same referent as the property of being a mountain. Secondly, the property of being high presupposes the property of being a mountain in the referent. Thus, we arrive at the following meaning:

(3a) There is an entity X which is identical with Q and qualified by P; Q is the referent of shān and P is the (set of) feature(s) gāo carried by Q.

The virtual referent P of shān in (2a) is replaced by the abstraction P of gāo in (3a). The latter meaning is more complex because the height of the mountains in (3) gāo shān ‘high mountains’ does not exist without the mountains whereas the mountains in (2) shān shuǐ ‘water from the mountains’ can exist without the water.

The meaning of (4) shān gāo ‘the mountain is high’ differs from that of (3) gāo shān ‘high mountains’ in the presence of a temporal dimension (cf. Wiedenhof 1996: 146). Apart from the mountain which is high, the
expression (4) *shān gāo* conjures up in the mind the thought of a situation where the mountain is high (cf. Ebeling 1978: 231). The meaning can therefore be described as follows:

(4a) There is a situation E where P carries the (set of) feature(s) Q; P is the referent of *shān* and Q is the (set of) feature(s) *gāo*.

A situation can be defined as an entity with a temporal dimension.

Finally, we have to consider the following example (cf. Wiedenhof 1996: 147):

(5) 高

*gāo*

high

‘it is high’

The meaning of (5) *gāo* differs from that of (4) *shān gāo* in the absence of the mountain:

(5a) There is a situation E where an entity X carries the (set of) feature(s) *gāo*.

II

Against the background of the theoretical framework outlined here I would now like to reconsider Chaofen Sun’s analysis of grammaticalization in the history of Chinese. Sun adduces the following examples illustrating the development of *bā* from a full-fledged lexical verb meaning ‘to hold’ through a preverbal object marker into a grammaticalized preposition marking high transitivity (1996: 59-75).

(6) 左手把其袖

*zúo-shǒu bā qí xiù*

left-hand hold his sleeve

‘the left hand holds his sleeve’

(6a) There is a situation E where P is holding Q; P is the referent of *zuó-shǒu* and Q is the referent of *qí xiù*.

(7) 醉把花看益自傷

*zuì bā huā kàn yì zì shāng*

drunk hold flower watch more self hurt

‘drunk, I look at the flower by holding it, even more broken-hearted’

(7a) There is a situation E where an entity X [...] is holding P and looking at Q [...] ; P is the referent of *huā* and Q is identical with P.

(8) 莫把杭州刺史欺

*mò bā hángzhōu cìshì qī*
NEG BA Hángzhōu magistrate deceive
‘do not deceive the magistrate of Hangzhou’

(8a) There never is a situation E where an entity X deceives P; P is the referent of hángzhōu cìshì.

In the latter example the meaning ‘to hold’ has been lost.

The development of the bā construction is correlated with the history of the Chinese passive marker bèi, which developed from a full verb meaning ‘to receive’.

(9) 被水寒之害
bèi shuǐ hán zhī hài
receive water cold REL damage
‘receive damage from flood and cold’

(9a) There is a situation E where an entity X receives the (set of) feature(s) Q, viz. X being damaged by P; P is the referent of shuǐ hán and Q is the referent of hài.

(10) 常被老元偷格律
cháng bèi lǎo yuán tōu gé-lǜ
often PASS old Yuán steal rhyme-scheme
‘my prosodic scheme was frequently stolen by Old Yuán’

(10a) There is often a situation E where an entity X is affected by P stealing Q; P is the referent of lǎo yuán and Q is the referent of gé-lǜ.

(11) 獨坐堂上，夜被刺死
dú zuò táng shàng, yè bèi cì-sǐ
alone sit hall up, night PASS stab-die
‘sitting alone in the hall, he was stabbed to death at night’

(11a) There is at night a situation E where an entity X […] is stabbed and dies.

(12) 被火烧死
bèi huǒ shāo-sǐ
PASS fire burn-die
‘he was burned to death by fire’

(12a) There is a situation E where an entity X is burned by P and dies; P is the referent of huǒ.

In (9) the subject of the event receives the damage as if it were an object; in (10) he is affected by an event in which he is neither the actor nor the object; in (11) and (12) he is the object of the event.

While bèi turned into an actor marker, bā developed into a preverbal object marker:

(13) 若把白衣輕易脱
ruò bǎ bái-yī qīngyì tuō
if BA white-clothes easy undress
‘if one takes off the white dress easily’

(13a) If there is a situation E where an entity X takes off P with ease; P is the referent of bái-yī.

(14) 把他堂印取去
bā tā tángyīn jiāng qù
BA his seal take go
‘take away his seal’

(14a) There is a situation E where an entity X takes P and goes; P is the referent of tā tángyīn.

This development leads to the full grammaticalization of bā in modern Mandarin:

(15) 我把那本書給了他
wǒ bā nèi-běn shū gěi le tā
me BA DEM-CL book give PFV him
‘I gave him the book’

(15a) There is a situation E where I carry the (set of) feature(s) Q, viz. having given P to him; P is the referent of nèi-běn shū and Q is the referent of gěi le.

Here bā has lost its verbal character, as is clear from the fact that it cannot replace the verb ná ‘to take’ in the following sentence:

(16) 我拿了一本書
wǒ ná yi-běn shū
me take PFV one-CL book
‘I took a book’

(16a) There is a situation E where I carry the (set of) feature(s) P, viz. having taken Q; P is the referent of ná le and Q is the referent of yi-běn shū.

(17) 我拿那本書給了他
wǒ ná nèi-běn shū gěi le tā
me take DEM-CL book give PFV him
‘I gave him the book’

(17a) There is a situation E where I carry the (sets of) features P and R, viz. taking Q and having given it to him; P is the referent of ná, Q is the referent of nèi-běn shū, and R is the referent of gěi le.

While ná has the valences ‘taking’ and ‘taken’, bā has the valences ‘having an object’ and ‘being an object’. The essential point is that there is no direct syntactic relation between wǒ and bā in example (15), where the first valence of bā is filled by ‘giving’ and the second by ‘book’. 
In conclusion, \textit{bā} developed from a full-fledged lexical verb through a serial verb construction into a grammaticalized marker of high transitivity. The development involves the following reanalysis of the \textit{bā N V} sequence:
1. There is a situation \(E\) where an entity \(X\) holds \(N\).
2. There is a situation \(E\) where an entity \(X\) holds \(N\) and carries the (set of) feature(s) \(V\) which may affect \(N\).
3. There is a situation \(E\) where an entity \(X\) carries the (set of) feature(s) \(V\) which affect \(N\).

The temporal dimension of the situation \(E\) shifts from \(X\) holding \(N\) to \(X\) carrying the (set of) feature(s) \(V\) and is lost in \textit{bā}, which thereby loses its verbal character.

### III

Sun derives the suffixal aspect marker \textit{le} ‘perfective’ from the verb \textit{liǎo} ‘to complete’ and the sentential clitic expressing perfect aspect \textit{le} ‘currently relevant state’ from the verb \textit{lái} ‘to come’ (1996: 82-103). Consider the following examples:

(18) 我吃了饭了
\(wǒ chī le fàn le\)
me eat PFV food CRS
‘I have eaten’

(18a) There is a situation \(E\) resulting from a prior situation \(F\) where I carry the (set of) feature(s) \(P\), viz. having eaten \(Q\); \(P\) is the referent of \textit{chī le} and \(Q\) is the referent of \textit{fàn}.

(19) 吃饭了
\(chī fàn le\)
eat food CRS
‘I ate’

(19a) There is a situation \(E\) resulting from a prior situation \(F\) where an entity \(X\) carries the (set of) feature(s) \(P\), viz. eating \(Q\); \(P\) is the referent of \textit{chī} and \(Q\) is the referent of \textit{fàn}.

(20) 我不吃饭了
\(wǒ bu chī fàn le\)
me NEG eat food CRS
‘I will not eat (now)’

(20a) There is a situation \(E\) resulting from a prior (imagined) situation \(F\) where I do not carry the (set of) feature(s) \(P\), viz. eating \(Q\); \(P\) is the referent of \textit{chī} and \(Q\) is the referent of \textit{fàn}.

It is difficult to omit the sentential clitic in example (18) because this would suggest the absence of a currently relevant situation resulting from the event which is denoted by \textit{chī le fàn} ‘(someone) ate’, so that “the sentence does not sound like a completed statement” (Sun 1996: 84). This can be remedied by
adding an anchor which renders the situation resulting from the prior event currently relevant:

(21) 我吃了饭去
    wǒ chī le fàn qù
    me eat PFV food go
    ‘I will eat before going’

(21a) There is a situation E where I carry the (sets of) features P and R, viz. having eaten Q and going; P is the referent of chī le, Q is the referent of fàn, and R is the referent of qù.

In the sentences (15) and (17) cited above the anchor is provided by tā having the book and in sentence (16) by shū being in my possession. In the following examples there is no such anchor. It follows from the analysis that (23) ? wǒ chī le fàn sounds worse than (22) ? chī le fàn as a statement (cf. Sun 1996: 83, 89).

(22) 吃了饭
    chī le fàn
    eat PFV food

(22a) There is a situation E with an entity X carrying the (set of) feature(s) P, viz. having eaten Q; P is the referent of chī le and Q is the referent of fàn.

(23) 我吃了饭
    wǒ chī le fàn
    me eat PFV food

(23a) There is a situation E with me carrying the (set of) feature(s) P, viz. having eaten Q; P is the referent of chī le and Q is the referent of fàn.

As in the case of bā, the temporal dimension shifted away from the verb ‘to complete’ and the direct syntactic relation with the original actor was lost. The resulting monovalent atemporal meaning ‘completed’ of the suffix le is carried by the referent of the (set of) feature(s) denoted by the preceding verb, e.g. chī le, where the eating is finished.

Sun argues that the sentential clitic le ‘currently relevant state’ (cf. Li & Thompson 1981: 238-300) partly represents earlier le ye, with le from liāo ‘to complete’ and ye being an earlier perfect marker:

(24) 喝饭了也
    chī fàn liāo ye
    eat food complete CRS
    ‘(one) finished eating’

(24a) There is a situation E resulting from a prior situation F where an entity X carries the (sets of) features P and R, viz. eating Q and finishing P; P
is the referent of \( \text{chî} \), Q is the referent of \( \text{fân} \), and R is the referent of \( \text{liâo} \).

(25) 喝了酒也
\( \text{chî le jiû ye} \)
\( \text{eat PFV wine CRS} \)
\( \text{‘(one) has drunk (some) wine’} \)

(25a) There is a situation E resulting from a prior situation F where an entity X carries the (set of) feature(s) P, viz. having drunk Q; P is the referent of \( \text{chî le} \) and Q is the referent of \( \text{jiû} \).

Another source of the sentential perfect marker \( \text{le} \) is the verb \( \text{lái} \) ‘to come’:

(26) 將店主打死來
\( \text{jiâng diàn-zhû dá-sî lái} \)
\( \text{take store-owner hit-dead CRS} \)
\( \text{‘(someone) has beaten the store-owner to death’} \)

(26a) There is a situation E resulting from a prior situation F where an entity X carries the (set of) feature(s) Q, viz. beating P resulting in P carrying the (set of) feature(s) R; P is the referent of \( \text{diàn-zhû} \), Q is the referent of \( \text{dâ} \), and R is the referent of \( \text{sî} \).

(27) 是我打死人來
\( \text{shî wô dá-shâ rén lái} \)
\( \text{be me hit-kill person CRS} \)
\( \text{‘I have killed someone’} \)

(27a) There is a situation E resulting from a prior situation F where it is the case that I carry the set of features P, viz. hitting and killing Q; P is the referent of \( \text{dâ-shâ} \) and Q is the referent of \( \text{rén} \).

It appears that \( \text{lái} \) replaced \( \text{yê} \) as a perfect marker and became \( \text{le} \) as a result of phonological reduction. According to Sun (1996: 102), the following sentence became ambiguous when the grammaticalized reflexes of \( \text{liâo} \) ‘to complete’ and \( \text{lái} \) ‘to come’ merged as \( \text{le} \):

(28) 吃飯了
\( \text{chî fân le} \)
\( \text{eat food LE} \)
\( \text{‘I have eaten’ or ‘it is time to eat’} \)

This seems improbable to me because the perfective aspect marker \( \text{le} \) had become a suffix between the 10th and 14th centuries (Sun 1996: 95f.) whereas \( \text{lái} \) replaced \( \text{yê} \) as a sentential perfect marker in the 15th century (Sun 1996: 99f., cf. table 4.1 on page 102), perhaps under the influence of the third Ming emperor, who moved the capital from the south to Beijing (Sun 1996: 103). My analysis of sentence (28) is the following:
(28a) = (19a) There is a situation E resulting from a prior situation F where an entity X carries the (set of) feature(s) P, viz. eating Q; P is the referent of chî and Q is the referent of fân.

The ambiguity in the reading of (28) results from the real or imagined character of the prior situation F: the eating may either have taken place before E or have been imagined so as to become relevant at the time of E, see also example (20) above. It follows that the sentential clitic le must indeed be derived from lái ‘to come’, not from le ye. The semantic development can be analyzed as follows.

(29) lái come
(29a) There is a situation E where an entity X carries the (set of) feature(s) lái.

(30) le CRS
(30a) There is a situation E resulting from a prior (real or imagined) situation F where an entity X carries a (set of) feature(s) Y.

Unlike bā and suffixal le, the sentential clitic le did not lose its temporal dimension when the direct syntactic relation with the original actor was lost. This suggests the following reanalysis:
1. There is a situation E where an entity X is coming.
2. There is a situation E where an entity X carries the (sets of) features Y and ‘coming’.
3. There is a situation E which is coming into being as a result of a situation F where an entity X carries the (set of) feature(s) Y.
4. There is a situation E resulting from a prior situation F.

While the first valence of bā is filled by ‘giving’ in example (15) and the only valence of suffixal le is filled by the preceding verb, the meaning ‘coming’ of lái became bivalent ‘resulting from’ when its temporal dimension was separated from the temporal dimension of X carrying the (set of) feature(s) Y, the two new valences being filled by E and F.

IV

The history of de can be analyzed along similar lines (cf. Sun 1996: 112-161 and Wiedenhof 1995: 20-61). I shall refrain from presenting a full account here and limit myself to a short outline.

It appears that de developed from a full lexical verb meaning ‘to obtain’, then ‘to attain’, ‘to be possible’, into a modal auxiliary ‘can’, with shift of its temporal dimension and loss of its verbal character ‘resulting in’, then into a subordinating clitic ‘specifying’, linking two clauses. The shift of the temporal dimension can be illustrated with the following examples:
(31) 寻得入門
xún de rù mén
find possible enter door
‘one can find and enter the door’

(31a) There is a situation E where it is possible that an entity X carries the
(sets of) features P and Q, viz. finding R and entering R; P is the referent
of xún, Q is the referent of rù, and R is the referent of mén.

(31b) There is a situation E where an entity X carries the (set of) feature(s) P,
viz. finding R, resulting in X carrying the (set of) feature(s) Q, viz.
entering R; P is the referent of xún, Q is the referent of rù, and R is the
referent of mén.

(32) 我今天看完了這本書
wǒ jīntiān kàn de wán zhè-běn shū
me today read DE finish DEM-CL book
‘I can finish reading this book today’

(32a) Today there is a situation E where I carry the (set of) feature(s) P, viz.
reading R, resulting in me carrying the (set of) feature(s) Q, viz.
finishing R; P is the referent of kàn, Q is the referent of wán, and R is the
referent of zhè-běn shū.

(32b) Today there is a situation E where I carry the (set of) feature(s) Q, viz.
finishing R, specified by a situation F where I carry the (set of)
feature(s) P, viz. reading R; P is the referent of kàn, Q is the referent of
wán, and R is the referent of zhè-běn shū.

(33) 他跑得快
tā pǎo de kuài
he run DE fast
‘he can run fast’ or ‘he runs fast’

(33a) There is a situation E where he carries the (set of) feature(s) P resulting
in him carrying the (set of) feature(s) Q; P is the referent of pǎo and Q is
the referent of kuài.

(33b) There is a situation E where he carries the (set of) feature(s) Q specified
by a situation F where he carries the (set of) feature(s) P; P is the
referent of pǎo and Q is the referent of kuài.

(34) 他跑得不快
tā pǎo de bu kuài
he run DE NEG fast
‘he does not run fast’

(34a) There is a situation E where he does not carry the (set of) feature(s) Q
specified by a situation F where he carries the (set of) feature(s) P; P is
the referent of pǎo and Q is the referent of kuài.

(35) 他跑不快
tä pâo bu kuài
he run NEG fast
‘he cannot run fast’

(35a) There is a situation E where he is qualified by the (set of) feature(s) P and does not carry the (set of) feature(s) Q; P is the referent of pâo and Q is the referent of kuài.

The difference between the two readings of (33) results from the real or imagined character of his running, not from the difference between the meanings (33a) and (33b). The semantic difference between the sentences (34) and (35) may be compared with Ebeling’s distinction between temporal gradation and temporal limitation (1978: 301-339, cf. Kortlandt 1980).

In the theoretical framework exemplified here, the development of syntactic meanings through loss, shift and split of meaningful elements in the reproduction of the semantic code bears a strong resemblance to the imperfect transmission of genetic information in biological evolution. The formal expression of syntactic relations between meaningful elements can be compared with the molecular succession in chains of proteins which ensures the transfer of hereditary messages from one generation to the next. As McNeill pointed out twenty years ago, “the slow processes of evolution presumably apply to human societies and their symbolic systems as much as to human bodies, so that when logic cannot decide, survival eventually will” (1976: 8).

References

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