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TOWARDS A TYPOLOGY OF ASPECT IN SINITIC LANGUAGES

Hilary Chappell

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1. *Introduction: The study of dialect grammar*

Kratochvil (1968:15-16) and DeFrancis (1984:54-56) have made useful comparisons of the Sinitic languages (or Chinese dialects) with the Romance languages of Europe as being on the same level of linguistic classification as a language family. Bloomfield (1933:44) also regarded Chinese as being composed of a group of mutually unintelligible languages, though ultimately related by means of a common proto-language. Chinese popular and linguistic tradition has on the other hand, perhaps with equal justification, viewed Sinitic languages as ‘dialects (*fāngyán*)’ resulting from the unique sociolinguistic situation in China with a long unbroken history in the use of a common written language that has served to unify the different linguistic areas.¹

The question of ‘dialect’ versus ‘language’ has however led to negative consequences for the study of Chinese dialect grammar: While the study of dialect phonology and tone systems is well-advanced for Sinitic languages, the grammar of Chinese dialects other than Mandarin is relatively underresearched. There appear to be two opposing views with regard to grammar: One view stresses the commonalities in grammar; the other, more recently advocated viewpoint stresses the divergences.

Chao Yuen-ren, as a proponent of the first view, claimed (1968:13) that ‘in matters of Chinese grammar ... the greatest degree of uniformity is found among all the dialects of the Chinese language’ to the extent that ‘there is practically one universal Chinese grammar’. Hashimoto (1974:80) in her study of Cantonese phonology while pointing out that ‘the systematic study of grammar began late in the Chinese field’, attributes the relatively recent appearance of studies on Cantonese grammar as also being ‘partly due to the fact, that, in its main features, the grammatical system of Cantonese (as well as of other Chinese dialects) agrees with that of Mandarin or the national language (1974:76)’.

¹ This paper is based on research commenced at the University of Hong Kong during a field trip in June and July, 1989 on a grant from the Australian Research Council (ARC) provided for an ongoing project on the study of aspect systems in Sinitic languages and uses materials and data collected in both Hong Kong and from a second ARC-funded research trip to Canberra in December 1989 to use the East Asian collections at the Australian National University and the National Library of Australia. I would like to thank the following language consultants for their assistance in recording or eliciting data: Angela Lai-wah Wong; Anna Fung Shuk-han and Ada Chung Sau-lin from Hong Kong for Cantonese; Xu Ante from Xiamen University; Fujian for Amoy Hokkien and Xu Yuzeng from Beijing Yuyan Xueyuan for Mandarin.

It cannot be denied that the Sinitic dialect groups share many common features: They could all be described as analytic tonal languages using means other than inflectional morphology to signal grammatical relations. All display complex systems of aspect and modality yet do not mark tense on the verb. In fact, absence of the category of tense is a general feature of Sino-Tibetan. The noun phrase may not be marked by case yet is typically built up into a complex with the semantically-based system of noun classifiers and relative clauses preceding the head noun. The verb phrase may also be complex in terms of elaborate postverbal modification, including resultative constructions and sentence-final rhetorical particles, reduplication and verbal measure words

As proponents of the second view, Zhu Dexi & Lu Jianming (1987:45) claim that one of the priority areas in Chinese Linguistics which needs to be opened up and investigated is research on dialect grammar (*fāngyán yǔfǎ diàochá yánjiū*). The situation is similarly assessed in Wu (1958:84-85) who states that the neglect of research into dialect grammar is a serious shortcoming and that the current trend in emphasising phonetics continues to hinder the full expansion of dialect research. Y.C. Li (1986:393-395) also takes issue with the view that Chinese dialects have a homogenous grammar, urging recognition of the view of Sinitic as being comprised of languages with both diverse phonological and grammatical systems.

This paper sets out to analyse the grammatical category of verbal aspect in representative dialects of three dialect groups within Sinitic, Mandarin, Yue-Guangzhou and Min-Xiamen, in order to investigate what the general grammatical features of aspect in Sinitic are as opposed to the specific and unique features of aspect in each dialect. The syntactic strategies used to encode aspect in Yue and Min are discussed as well as their function and morphological form, contrasting them with the aspect system of Mandarin Chinese in order to set up a typology of Sinitic aspect systems. Diachronic relationships are also considered. Hence, the aim of this study is to unify the two views regarding Chinese grammar by evaluating the categories of aspect in terms of contemporary cross-linguistic and typological studies of aspect, tense and modality such as Bybee (1985); Bybee & Dahl (1989), Bybee, Pagliuca & Perkins (1994), Comrie (1976), (1985) and Dahl (1985).

Secondly, this paper suggests that the feature of preverbal aspectual marking in Min-Xiamen may prove to be historically significant in terms of the general development of Sinitic aspect systems. An outline of the possible diachronic development of aspect markers in these two dialect groups will be presented and the speculated path of development will be contrasted with that attested for standard Chinese (Mandarin or *pǔtōnghuà*). The diachronic outline as well as the synchronic descriptions are based on the following three premises proposed by Bybee (1985):

- 1) diachronic change proceeds from non-bound lexical morphemes to bound grammatical morphemes
- 2) similar paths of development of lexical meaning into grammatical meaning can be identified in different languages
- 3) grammaticized meaning is determined by the original lexical source.

Analysis of data for Min-Xiamen, Yue-Guangzhou and Mandarin is carried out in terms of two main categories of aspect - bounded and unbounded. 'Bounded' aspect refers to

predicates aspectually modified to code events which have or contain a well-defined limit - either a specific beginning or endpoint, such as resultatives, perfectives, inchoatives and perfects of anteriority . In contrast to this, ‘unbounded’ aspect refers to those markers which code the limitless or ongoing nature of an event such as progressive, continuous and habitual aspects.

2. *Northern Chinese - Mandarin*

The Mandarin group or Northern Chinese *běifānghuà* is the largest dialect group of Sinitic both in terms of number of speakers and geographical dispersion. About 72% of PR China’s population speak a dialect of Mandarin as their first language, that is, close to 700 million (Ramsey 1987), while in Taiwan where Mandarin is also the official language, 15% of the population use it as their first language, combined with the fact that the majority of the population is bilingual (Kubler 1982:156-7).

Mandarin has the following verbal aspect system:²

BOUNDED		UNBOUNDED	
• <i>le</i>	Perfective	<i>zai+ V</i>	Progressive
• <i>guo</i>	Experiential	<i>-zhe</i>	Continuous
• <i>qilai</i>	Inchoative		

In standard Chinese, the preferential strategy for marking aspect is by means of suffixes to the main verb. The set of aspect markers does not however form a clear-cut paradigm, as we find a preverbal marker *zài* encoding the progressive aspect.

Examples of each of these aspect markers are next presented without comment as discussion will be carried out in comparative terms in the following section.³

1. *Tā zhāi -le sān lǒu guǒzi.*
3sg pick **PFV** three basket fruit
‘He picked three baskets of fruit.’ (Chinese Pear Stories 1.4:4)
2. *Wǒ mèimei qù -guo Aomén*
1sg sister go **EXP** Macau
‘My sister’s been to Macau (before).’
3. *Tiānqì jiàn-jiàn rè-qilai.*
weather gradual hot-**INC**
‘The weather’s getting hotter.’

² The transcription system used for Mandarin is *pīnyīn*, as is commonly accepted practice in conjunction with the following diacritics for tone: Tone (1): High level 55 **ā**; Tone (2): High rising 35 **á**; Tone (3): Falling- rising 214 **ǎ**; Tone (4): High falling 51 **à** cf. Chao 1968:26.

³ Abbreviations used in the interlinear glossing are: PFV = perfective; PERF = perfect/anterior; EXP = experiential; INC = inchoative; PROG = progressive; CONT = continuous; HAB = habitual; Q = question particle; RP = rhetorical particle, SUB = subordinating particle; BA = marker of the disposal construction.

4. *Tā zhèng zài xiūxi.*
3sg just **PROG** rest
'S/he's having a rest right now.'
5. *Tā xiào-zhe shuō.*
3sg smile-**CONT** speak
'Smiling s/he spoke.'

In terms of both diachronic evolution of aspect markers and grammatical studies of aspect, Mandarin has been most thoroughly researched of the three dialect groups in this study, not surprising given its sociolinguistic status. A brief outline of the aspect systems in Yue and Minnan follows, dialect groups both located in southeastern China, where the Sinitic languages are immigrant languages (Li 1988:32).

3. *Yue-Guangzhou*

The Yue group of dialects are spoken in the provinces of Guangdong and Guangxi in southeastern part of the People's Republic of China (PRC).

The prestige dialect and regional standard of the Yue group centres on the capital city of Guangzhou but extends to the surrounding Pearl River delta and the British crown colony of Hong Kong. There are roughly 50m speakers of Yue dialects in China, which constitutes approximately 5% of the present population (Ramsey 1987:98; Norman 1988:214). In addition to this, large numbers of Yue speakers are found in both continental and insular Southeast Asia, N. America and Australia, the result of large scale migrations in the last few centuries (Hashimoto 1974:12 and Wurm & Hattori 1981).⁴

The Yue dialects are of great significance in the reconstruction of Middle Chinese, due to the fact that they preserve the sound system - particularly the finals or rhymes - and tonal categories of the literary standard of the Tang dynasty better than any other dialect group in the Sinitic family (see Norman 1988; Ramsey 1987).

Furthermore, if we compare the lexicon and morphology (grammatical particles) of the Yue dialect spoken in Guangzhou and Hong Kong (Yue-Guangzhou) with standard Chinese in terms of basic vocabulary, it is often hard to find direct correspondences in standard Chinese. It is not merely a question of the well-known differences in register in colloquial lexical items such as nouns and verbs denoting daily activities (e.g. YG *sik*⁶, M *chī* 'eat'; YG *jam*² M *hē* 'drink') but much more thorough-going in that many grammatical function morphemes are non-cognate (see Hashimoto 1972 for a detailed description).

Similarly to Mandarin, aspect marking in Yue-Guangzhou, makes use of the strategy of suffixing aspect markers to the main verb, however, in a consistent manner as opposed to Mandarin, since Cantonese strictly adheres to the principle of suffixing.

⁴ Most of the population in Hong Kong are immigrants from the Pearl River delta area (Li Xinkui 1988:29). For this reason, I follow the common practice in treating the forms of Yue spoken in Hong Kong and Guangzhou as belonging to the same dialect area, as do Chao (1947); Kwok (1971), Cheung (1972), Hashimoto (1974:70) and Bauer (1984).

Yue-Guangzhou has six main fully grammaticized aspect markers acting as suffixes on the main verb.⁵

BOUNDED		UNBOUNDED	
• <i>tso</i> ²	Perfective	<i>-kan</i> ²	Progressive
• <i>kwo</i> ³	Experiential	<i>-tsy</i> ⁶	Continuous
• <i>hei</i> ² (<i>sæŋ</i> ⁵) <i>lai</i> ⁴	Inchoative	<i>-hoi</i> ¹	Habitual

Examples of each aspect marker are presented below and discussion given in section 5.

6. *ngo*⁵ *tsau*⁶ *hai*⁶ *Kwong*²*tsau*¹ *tsut*¹*sai*³ *ke*³
 1sg then at Guangzhou be:born SUB

*m*⁵ *lok*⁶ *nin*⁴ *ne*⁴ *tsau*⁶ *lai*⁴ *tso*² *Hæŋ*¹ *Kong*²
 five six year RP then come PFV Hong Kong
 ‘I was born in Guangzhou, and at five or six years of age, I came to Hong Kong.’
 (Narrative II:1-2)

7. *Ngo*⁵ *hæi*³ *-kwo*³ *O*³*tsau*¹
 1sg go EXP Australia
 ‘I’ve been to Australia.’

8. *K’æi*⁵*tei*¹ *ts’au*² *hei*² *ka*³ *lai*⁴
 3pl quarrel INC INC
 ‘They began quarrelling.’

9. *Nei*⁵ *jiu*³ *mat*¹ *je*⁵ *ja*¹?
 2sg want what thing Q
 ‘What do you want?’

*K’æi*⁵ *sik*⁶ *-kan*² *ko*² *ti*¹ *la*¹
 3sg eat PROG that some RP
 ‘The stuff he’s eating.’

10. *t’a:i*³ *-tsy*⁶ *nga:n*⁵*keng*³
 wear CONT glasses
 ‘wearing glasses (at reference time)’

⁵ The transcription system used for Yue-Guangzhou is the International Phonetic Alphabet (IPA). The tone numbers follow Lau (1977, 1978): Tone (1): High level/falling 55, 53; Tone (2): High rising 35; Tone (3) Mid level 33; Tone (4) Mid falling 21; Tone (5): Low rising 23; Tone (6): Low level 22. The three entering tones (*rusheng*) for syllables ending in *-p*, *-t* and *-k* are subsumed under the high level, mid level and low level categories q.v. Chao 1947:24.

11. *ta:i*³ **-hoi**¹ *nga:n*⁵*keng*³
wear **HAB** glasses
'wearing glasses (always has to)'

It needs to be pointed out that Yue-Guangzhou possesses a far richer inventory of aspect markers than the scope of this study allows us to discuss. Lexical aspect markers such as *y:n*⁴ 'terminative', *sa:i*³ 'completive (of all objects)', *ma:i*⁴ 'completive (of remaining objects)', *fa:n*² 'resumptive' and *ts'an*¹ 'resultative with undesirable effects' are discussed in Kwok (1971).

4. *Min-Xiamen*

The Min dialect group is one of the smallest in the Sinitic family with only 4.1% of speakers of the Chinese languages (Ramsey 1987:87). According to Wurm et al. (1988: Map B-12), there are 52.5 million speakers of Min dialects in China and Taiwan. In Taiwan, 71% of the population speak a variety of Southern Min that is very close to Min-Xiamen (or Amoy) as their first language (Kubler 1982). Overseas, large concentrations of Min speakers are also to be found, for example, in Singapore where 53% of the population speak a Min dialect as their first language (Kuo 1980).

The heartland of Min dialects is concentrated largely in the modern day province of Fujian in mainland China. This area was one of the last to be colonized and settled by the Han people. It is also one of the most geographically inaccessible areas of China with high mountain ranges and few major rivers (Norman 1988:228). This may partially account for the heterogeneous nature of the Min dialect group. It is reputed to be the most highly divergent group within Sinitic from the point of view of phonology. Norman (1970, 1973, 1988) classifies the Min dialects into eastern and western groups with finer subdivisions within these, according to phonological and morphological features, a classification which supersedes Yuan's earlier one into northern and southern groups (1960). It is also pointed out by Norman (1988:228), amongst others, that Min appears to have been isolated from mainstream Sinitic at a very early stage, preserving, as a result, many archaisms.

The late Ming dynasty (1368-1644 AD) witnessed several waves of migration of Min Chinese who crossed the Formosa Strait to settle on the island of Taiwan. They also moved southwards along the coast of Guangdong province where large groups of Min speakers are to be found in northeastern Guangdong. Similarly, migration by seafaring Min Chinese to Hainan island off the southeast coast of China, has resulted in a population of 4.4 million Min speakers today, found concentrated in the eastern and southern coastal areas of this island (Ramsey 1987:107). Sociolinguistically, Min-Xiamen acts as a regional standard in southern Fujian and is used in this section as the representative dialect for Minnan.

In general, Southern Min uses the strategy of preverbal adverbs and auxiliary verbs to encode aspect rather than the use of suffixes or particles following the verb. Preverbal marking of aspect can be considered a special characteristic of the Min group, particularly the Xiamen dialect (see also Brosnahan 1972:52). Hence, from a diachronic

point of view, the analysis of the Xiamen dialect of Southern Min - known as both Amoy Hokkien and Taiwanese in English - may provide an indication of the form of aspectual constructions at an earlier stage. We will return to this point later in a brief overview of diachronic developments in section 6.

The main verbal aspect markers of Min-Xiamen are given in the table below:⁶

BOUNDED		UNBOUNDED	
<i>wu</i> ²	Perfect	<i>(ti</i> ² <i>)-te</i> ⁵	Progressive
<i>bat</i> ¹	Experiential	<i>V-.te</i> [?]	Continuous
<i>V-k'i</i> ³ <i>.lai</i>	Inchoative		

Loans from Mandarin:

- *ke*⁴ Experiential
- *liao*³ Perfective

The five main markers of aspect in Min Xiamen are exemplified here, then described in the following section.

12. *Gua*³ **wu**² *sia*³ *p'ue*¹ *ho*² *yi*¹
 1sg **PERF** write letter to 3sg
 'I have written a letter to him/her.'

13. *Yin*¹ **bat**¹ *k'i*³ *Pak*¹ *kiã*¹.
 3pl **EXP** go Beijing
 'They've been to Beijing.'

14. *Yin*¹ *ts'a*³ **-k'i**³*.lai*.
 3pl quarrel **INC**
 'They began quarrelling.'

15. *Tsa*⁵ *lit*⁵ *gua*³ **te**^ϕ *kun*⁴ *si*⁵
 yesterday 1sg **PROG** sleep time
 'Yesterday while I was sleeping...'

16. *Li*³ *tse*² **te**^ϕ *t'ia*¹ *yim*¹ *gak*⁷
 2sg sit **CONT** listen music
 'You're sitting down listening to music.'

⁶ The transcription system used for Min-Xiamen is the IPA. The tone values, indicated by raised numbers, are as follows: Tone (1): High level Tone (2): Low level 22; Tone (3): High falling 53; Tone (4): Low falling; Tone (6): *Yinru* 32; Tone (7): *Yangru* 4. See Xiamen dictionary (1982) and Brosnahan (1973).

5 General definitions of aspect markers

The category of verbal aspect typically expresses the completion or non-completion of events, actions or states of affairs. Perfectives, perfects and anteriors, completives and resultatives belong to the first type of aspect, expressing completion whereas imperfectives, progressives and habituales belong to the second type expressing the ongoing nature of the event. - Unlike tense, the category of aspect is not deictic: It does not encode the time at which an event took place with respect to the moment of speech which enables aspect markers, in general, to freely occur in most temporal contexts.

By verbal aspect, grammatical markers belonging to a closed class with fixed position with respect to the verb are intended. Sentence-final particles that also express aspect in conjunction with modality and lexical aspect coded in the form of verbs that inherently express or imply aspectual meanings fall outside the scope of this study. It will be seen from the following discussion that tense, aspect and modality are meanings which are not, however, easily disentangled from one another.⁷

5.1 Perfectives

Perfectives code that an event has ended or is finished, without necessarily implying that it is complete (cf. Comrie 1976:18-20). The semantic definition is not surprising, given that it has been observed cross-linguistically that perfectives typically develop out of verbs meaning ‘finish’, ‘conclude’ and ‘complete’; also ‘throw away’, ‘go’ and ‘lose’ (cf. Bybee et al, 1994 : ch.3:8). In Mandarin, it is claimed that the perfective marker *-le* evolved from the verb *liǎo* 了 ‘finish’, according to Wang Li (1957), Cheung (1974) and Mei (1978) *inter alia*. Even in earlier periods of Chinese such as during the Nanbeichao and the Tang dynasties, the markers indicating perfectivity were all related to verbs meaning ‘finish, complete’ such as *bì*, *jìng*, *qì* and *yǐ* (Mei 1981b).

Yue has *tso*² as its perfective suffix. The origins of *tso*² are not attested, although Mei (1978) suggests *zhào* ~ *zhuó* 着 < ‘to place’, ‘to stick’ as a source, which has developed into the continuous marker in Mandarin. Min-Xiamen appears not to have a perfective aspect in the form of a grammaticized marker of verbal aspect, but traditionally uses the strategy of resultative complement verbs (RC) to code perfectivity such as *tsia*²⁵-*pa*³ ‘eat-replete, to eat one’s fill’.⁸ In contrast to Min-Xiamen, other dialects of Minnan such

⁷ The argumentation and examples for the following section are in the main to be found in Chappell 1989a and Chappell 1989b. Due to restrictions on space, most of these cannot be reproduced here. Abbreviations used for language names are the following: M = Mandarin; YG = Yue-Guangzhou; MX = Min-Xiamen; Fr = French; Ger = German and Eng = English.

⁸ Note that, in this case, as a marker of lexical aspect, *liǎo* 了 may be used as a resultative complement meaning ‘finish’, equivalent to Mandarin *wán* cf. Wu Zhongping 1958:88. The Xiamen consultant I worked with, similarly, did not use *liǎo* in his dialect in the same functions as Mandarin *le* but only as a resultative complement to a main verb. For example, in past contexts with a referential postverbal object where *le* is obligatory in Mandarin, the consultant used an unmarked verb form.

as Hainanese and Chaozhou (Teochiu) have borrowed Mandarin *liǎo* 了 into their aspect systems as the perfective (cf. Yuan 1960:276, see also Nakajimi 1977, 1979). Note that sentence-finally, all three dialects use modal particles to express inception of a new state of affairs (M.: *le*, Y. *la*¹, MX: *le /la*), which is semantically closer to the category of perfect (see below).

5.1.2 Specific characteristics of Sinitic perfectives

First, it should be noted that although aspect is typically not required grammatically, perfectives in some of the Sinitic languages are used obligatorily in past contexts in the presence of quantified or definite postverbal nouns. In this function, they express completion of a specific individuated event. This holds true for both Mandarin (Chappell 1988, 1989a) and Yue (Cheung 1972:145-6). This correlates with the fact that in languages that possess both tense and aspect, perfectives may be confined to past time reference (see Dahl 1985).

Mandarin:

17. *Tā zhāi -le sān lǒu guǒzi.*
 3sg pick **PFV** three basket fruit
 ‘He picked three baskets of fruit.’ (Chinese Pear Stories 1.4:4)

Second, Sinitic perfectives may also be used in irrealis contexts in the first clause of an *if* conditional construction to denote, for example, the condition which must be fulfilled to enable another action or event to take place.

Yue:

18. *P'ei³ju⁴ tsæŋ¹lai⁴ a¹ pi¹tsai² peng⁶ -tso²*
 if future RP baby sick **PFV**
 ‘If baby becomes ill in the future...’ (Kwok 1971)

Thirdly, they can be used in imperatives to stress the urgency or necessity of a certain action being carried out and thus brought to completion. These three uses of the perfective markers are all semantically related by the feature of the completion of an event, whether projected or real.

Mandarin:

19. *Ni ba yifu xi-hao le!*
 2sg BA clothes wash-proper **PFV**
 ‘Wash the clothes!’

Since perfective aspect markers encode the positive realization of an event, it is not surprising that they do not co-occur with negative markers in negated statements. This applies equally to both Mandarin *le* and Yue *tso*². The semantically-based nature of

aspect contrasts with the more grammaticized nature of tense which marks verbs in both affirmative and negative clauses.

Bybee et al (1994: ch.3) note that if perfectives are restricted to modifying certain verb classes, it will typically only be dynamic verbs. This is true in Mandarin and in Yue where the perfective markers cannot modify semantically stative yet syntactically transitive verbs such as *rènshi* ‘know, be acquainted’ or *xǐhuan* ‘like’ in Mandarin and *hai⁶* ‘be’ in Yue (Cheung 1972:156). Light (1986:418) points out that verbs meaning ‘know’, ‘recognise’ and ‘know how to’ in Cantonese, as opposed to Toishan Yue, can, however, take *tso²* which means it is less subject to semantic restrictions on verb type than is Mandarin *-le*. Other stative intransitive verbs such as M *pàng* and YG *fei⁴* ‘be fat’ do on the other hand permit an inchoative reading upon modification by the perfective of ‘to become/get fat’. Again, this feature is found in a large number of unrelated languages in Bybee et al’s survey, including Engenni (Kwa, Niger-Congo); Island Carib and Slave (Athapaskan). Comrie (1976:20) notes that ‘there is some functional value in utilising the perfective forms of stative verbs to denote entry into the appropriate state, since otherwise there would be little use for the perfective forms of these verbs..’.

5.2 Perfect/Anterior

Minnan stands out in contrast to both Mandarin and Yue in possessing a verbal construction to express the perfect by means of the verb *wu²* ‘have, exist’ which is cognate to Mandarin *yǒu*. The perfect or anterior⁹ implies a currently relevant state as a result of a prior event. *Wu²* is a preverbal auxiliary which retains its full tonal value. The aspectual construction it forms is remarkably similar to perfect constructions in Indo-European languages. For example, French, German and English all use the verb ‘to have’ to form the perfect; Fr: *je l’ai vu*, Ger: *ich habe sie /ihn gesehen*, Eng: *I’ve seen her/him*, MX: *gua³wu² k’uā⁴ki⁴.yi¹*.

Cheng (1978) describes its use as a modal marker of emphatic assertion, translating it by English ‘did’. In Bybee et al’s survey (1994: 3:12), perfect constructions are typically formed by means of stative auxiliary verbs such as ‘be’, ‘have’ and ‘remain’ in conjunction with the main verb.

Note that the distinction between the Mandarin anterior and the Mandarin perfective, that is, between sentence-final *le* and verb suffix *le*, is often neutralized, particularly in verb-final constructions. Cross-linguistically viewed, this does not constitute a problem in analysis, since there are many attested cases of perfective aspects developing out of perfects or anteriors, for example, French and German among other languages. In Mandarin, the two functions of *le*, have not yet become completely separate, as the following example shows where the perfect function of *le* can only be contextually and not structurally determined (for details, see Chappell 1988).

⁹ Bybee (1985) uses the term ‘anterior’ in preference to ‘perfect’ to avoid confusion with the separate category of perfective.

20. Mandarin:

Tāmen jiù kàndào tā diē-dào le, bǎ tā fúqilai.

3sg then see 3sg fall:over LE BA 3sg help:up

‘They saw that he had fallen over, so helped him up.’ (Chinese Pear Stories II.5:51-52)

It has been argued that perfective *le* diachronically developed from a construction with the form VERB-OBJECT-LIAO common in the Bianwen texts of 8th to 10th centuries (Cheung 1977, Mei 1978, 1981b). The particle *liǎo* was subsequently preposed to a position after the main verb (common in some 10th -12th century vernacular texts) under structural pressure of resultative and potential complements. Phonetic reduction of *liǎo* resulted in the eventual form *le* of modern spoken Mandarin. If we regard the two *le*’s of modern Mandarin as ultimately having the same lexical source, the neutralisation and overlapping of function is not difficult to explain. (*Contra* Wang 1957, Mei 1981a who claim for Mandarin and Ningbo that sentence-final *le* and its Ningbo counterpart have their source in the verb *lái* ‘come’. Note also, in favour of this view, that verbs meaning ‘to come’ are also cross-linguistically plausible sources of inchoatives and perfects.).

5.3 Experiential perfect

The experiential perfect codes that an event has taken place at some point in the past, indicating in addition to this, that the subject gains experience or knowledge of the situation as a result. Experiential perfects such as M *-guo* (YG *kwo*³ and MX *bat*¹ are however rare in the languages of the world. In Bybee et al’s sample of 75 languages, only Cantonese (the representative for Sinitic languages) is indicated as possessing this kind of aspect marker.

Dahl (1985:139-144) also found only eight occurrences of the experiential perfect in his sample of 64 languages from groups of different language families¹⁰. He observes that it is a relatively uncommon category with languages possessing it concentrated in the two areas of Asia and East Africa. Mandarin Chinese proved to have the highest frequency of this aspect marker in terms of the questionnaire administered to all language consultants.

The lexical source for M and YG is transparent in that a fully lexical verb M *guò*, Y *kwo*³ is found in use side-by-side with the aspect marker in each language. This verb means ‘to pass/cross through space (or time)’. It is also used as a directional complement in both languages which modifies motion verbs with the meaning of ‘over, across’. It is easy to conceive of a semantic extension and generalisation taking place from movement through space to the more abstract movement through time, then to the experiencing of an event. The latter can, itself, be likened to ‘going through an event’.

The Yue experiential perfect is not identical in its range of functions to its counterpart in Mandarin. Yue *kwo*³ may also be used in future contexts and in the imperative to code

¹⁰ The languages were Japanese, Thai, Javanese, Indonesian, Sundanese, Isekiri (Kwa, Niger-Congo) and Sotho (Bantu, Niger-Congo), apart from Mandarin. Comrie (1976:59) also notes that Kpelle (Niger-Congo) has an experiential perfect.

intention to repeat an action (Cheung 1972:148). Note however that Kwok (1971:95; 108-109;112) treats this function of *kwo*³ as a different albeit homophonous aspect marker which she labels the ‘repetitive aspect’.

Yue

21. *Ma:i*⁵ *m*⁴ *ma:i*⁵ *kwo*³ *ko*³ *po*¹
 buy NEG buy EXP CL ball
 ‘Are you buying another ball?’

Min-Xiamen traditionally uses the preverbal aspect adverbial *bat*¹ which means ‘to have experienced something once in the past’ and is equivalent to literary *céng* 曾 q.v. Wu 1958:89; Yuan 1960:377. In addition to *bat*¹, many dialects of Minnan have borrowed Mandarin *guò*, in the case of Xiamen, as *ke*⁴ (Brosnahan 1973:54). The suffix *ke*⁴ can be used with or without preverbal *bat*¹ (see Bodman 1955:369; Brosnahan 1973:54).¹¹

In contrast to markers of the perfect (anterior) which imply a currently relevant result state, the experiential perfects in Yue, Minnan and Mandarin share the semantic feature of coding that the situation no longer holds.

Consequently, the examples of the experiential perfect given in the introductory sections on each dialect all code that the subject is no longer in the given place or country: For example, MX:*Yin*¹ *bat*¹ *k'i*³ *Pak*¹ *kiā*¹. ‘They’ve been to Beijing’ can only be stated if the subject is not in Beijing at the time of speech (see also Cheung 1972:148 for this feature of *kwo*³ in Yue).

5.4 Inchoatives

Separate from perfects and anteriors coding an inchoative meaning with stative verbs (e.g. M *hóng -le* ‘to get red’; Y *fei*⁴-*tso*² ‘to get fat’), all three dialects use a disyllabic or polysyllabic suffix based on a directional complement to code the inchoative aspect meaning ‘begin to do something’: M *-qilai*; .YG *hei*²(*sæng*⁵)*lai*⁴, MX *k'ilai*. As an independent verb, these all mean ‘arise, get up’, while as a directional complement, they denote a direction upwards in combination with a motion verb. The extension of use to a marker of inchoative aspect conforms to cross-linguistic findings, in that inchoatives typically derive from verbs with the meaning ‘to come’ (cf. English inchoative verb *become*).

2.5 Progressives

¹¹ The language consultant from Xiamen noted that, for him, *ke*⁴ was more formal than *bat*¹, which tallies well with the fact that it is a borrowing from Mandarin, the sociolinguistically more prestigious language.

The progressive aspect is defined narrowly in this paper to denote markers which modify only agentive verbs to code an ongoing event or action, following Bybee (1985). Bybee et al (1994: 5:12) define the progressive as containing the following elements of meaning: ‘an agent who is located spatially in the midst of an activity at the reference time’.

Cross-linguistically, lexical sources of progressives are found in three main types of stative verbs: *be* + *locative marker* + *Verb*, verbs meaning ‘be at’ and postural verbs (sit, stand) (Comrie 1976, Foley & Van Valin 1984, Bybee 1985, Dahl 1985). Mandarin conforms to this generalisation in its use of *zài* preverbally to code the progressive, since the independent verb, *zài*, means ‘be at’. As a coverb or preposition preceding noun phrases, it similarly means ‘at’. This is reminiscent of the English construction with the present participle: *be on /a VERB-ing* as an earlier stage of the progressive, for example, *he is on hunting./ he is a coming home*.

The progressive marker in Yue-Guangzhou is the suffix *kan²* whose written form is almost identical to the verb *kan²* ‘be tight, firm’.¹² Although orthographic evidence is particularly unreliable when it comes to written forms of the dialects, the semantic link between a resultative complement verb of enduring state meaning ‘be firm, tight’ and the progressive is a plausible one.

In Min-Xiamen, the progressive is coded by *te?* in preverbal position, for which at present there is no clear indication of lexical source. Progressives in all three dialects seem to share a special semantic feature which Bybee et al note for Spanish (1994: ch 5:12) implying that ‘the subject is involved in an activity and cannot or should not be disturbed’. This appears to be true for Sinitic, at least, for certain kinds of speech acts.

22. Spanish:

No puede venir al teléfono, se está bañando.

‘He can’t come to the telephone, he’s having a bath.’

23. Taiwanese Min:

Ts’iã³ tan³ tsit⁵ si⁵ gua³ te⁵ ts’ing² sã¹ la
 please wait a:bit 1sg PROG wear clothes RP

‘Please wait a bit, I’m just putting on my clothes.’ (Zhang 1983:135)

Comrie points out (1976:34-40) that many English stative verbs such as *know*, for example, do not normally take the progressive aspect: *?I am knowing Susie well*. He also considers such restrictions on the progressive in other languages. Dahl (1985:91) similarly found that specific markers of the progressive in many languages could not combine with stative verbs. He tested the verb *know* with the result that it was unable to take the progressive for any of the languages in the sample possessing this aspect category (1985:93). This includes Mandarin, since *zài* cannot co-occur with *zhīdao* ‘know’. Cheung (1972:156) notes that *kan²* is not compatible with *hai⁶* ‘be’ and permissible with some auxiliary verbs. In general, this aspect marker is able to combine with action, quality and status verbs of both transitive and intransitive types, which

¹² The resultative complement has an additional radical on the left-hand side - the mouth radical. Cheung (1972:149) points out in a footnote that this is merely to distinguish the two grammatical functions.

means that Yue-Guangzhou is again less subject to semantic restrictions on co-occurrence with verb type.

In Dahl's sample, 85% of the languages with a progressive marker used periphrastic means which corresponds to the situation in Sinitic for Min-Xiamen and Mandarin with preverbal markers. Bybee et al (1994: ch.5:17-30) also observed that progressive was the marked member of the set in opposition, for example, to zero-marked present tenses with habitual or generic meanings. Diachronically, older progressives develop into habituals and general imperfectives (Dahl 1985:93; Bybee et al, 1994 : ch.5:3) which leads into the final discussion of continuous and habituals.

5.6 Continuous

This kind of aspect marker is found in Mandarin, Min-Xiamen and Yue. It stativizes action verbs to denote ongoing situations that often form the background in clause combining. Consequently, continuous markers are usually able to combine with a larger range of verbs than the progressive, that is, with stative verbs as well as with dynamic ones.

In Mandarin, the continuous marker is *zhe* which is claimed to be the grammaticized form of a stative verb *zhuó* 着 'adhere, be attached to, be in contact with' that has undergone phonetic reduction (Wang Li 1957). In Yue, the continuous is the suffix *tsy⁶* which is used side-by-side with its homophonous independent verb *tsy⁶* 住 'live, stay' and resultative complement verb meaning 'be tight, firm'. The lexical sources of these two markers are thus compatible with the meaning of a continuing state of affairs coded.¹³

Although atypical for Min-Xiamen, there is a postverbal means of expressing the continuous which appears to be homophonous to the preverbal progressive marker: *te?* /*te*. Zhang (1983:126) treats both preverbal and postverbal *te?* as belonging to the same category of aspect. The *Dictionary of Putonghua and Min Dialect* (1982:484) treats both markers under the same entry.

According to Bodman (195:325), the variety of Amoy Hokkien spoken in Malaysia also allows postposing of the progressive marker *te?* to act as a verbal suffix to code the continuous. Bodman states explicitly that *te?* loses its tonal value in this function, while the complex of *Verb + te?* usually acts as a 'modifier' preceding another verb. Hence, in all three dialects, the continuous can be used to modify the first verb in a **V₁-CONT V₂** series with a backgrounding function, typically to indicate the manner in which the action denoted by V₂ is carried out (see examples in sections 2, 3 and 4 above).

¹³ Note however, that Mei (1981b) proposes that *tsy⁶*, identically to *tso²*, may have evolved from *zhuo*.

24. Mandarin

Haizimen zuo-zhe ting yinyue

children sit-CONT listen music

'The children are sitting down listening to music.'

Note that neither Bybee et al (1994) nor Comrie (1976) give examples of these from other languages. Bybee et al explain (ch.5:15) that no 'clear category of 'continuous' emerges'. Dahl question-marks *M zhe* (1985:180) as a kind of progressive. Nor did his survey apparently turn up any examples of this category. Hence, detailed descriptions of these markers in Sinitic may provide important criteria for discerning continuous aspects in other languages.

5.7 Habitual

Yue-Guangzhou, as opposed to both Mandarin and Minnan, possesses a grammaticized marker of the habitual in the form of the suffix *hoi¹*, according to Cheung (1972) which is semantically related to the independent verb *hoi¹* 開 'open, be opened'. Such a lexical source for an imperfective is not unexpected, given its stative nature. However, according to Bybee et al's cross-linguistic survey, habituals typically evolve out of verbs with meanings such as 'sit', 'know', 'see' or 'live' which, on the contrary, is the source for the continuous in Cantonese.

Nonetheless, special markers for the habitual are not common in either of the surveys by Dahl (1985) and Bybee et al (1994). Dahl (1985:96) found that only 4 languages met the requirements for the habitual marker as a major TAM [tense, aspect, mood] category.

The source of habituals was less easy to ascertain than for progressives and was often not given in the reference grammars consulted by Bybee et al (6 sources for 20 attested cases of habituals for the category of 'habituals without tense restrictions', see ch.5:30).

Habitual is used to code usual situations pertaining to personal habits and customs, as opposed to generic sentences that express the 'lawlike' character of a situation, for example, typical properties of an object (cf. Dahl 1985:96-102). Cheung (1972:150) explains that *sik⁶-hoi¹ faan⁶* [eat-HAB rice] can be used in the appropriate context to mean 'to usually or always eat rice' as opposed to other kinds of staple foods.

5.8 Verb reduplication

The process of verb reduplication to encode aspect represents a widespread phenomenon in Sinitic languages. Two related aspectual meanings are expressed: these are the delimitative - 'to do something for a little while' and the tentative - 'to try something out'. Both meanings can be regarded as belonging to the unbounded or imperfective class of aspect. This syntactic strategy is found, for example, in at least Northern Chinese, the Yue dialect group and in Minnan. Furthermore, in all three dialect groups it expresses the identical ideas of either short duration or tentative nature of the action, depending on the verb class.

25. Mandarin

Ràng *wǒ* *xiǎng-xiǎng*
 let 1sg think-think
 ‘Just let me have a think about it.’

26. Yue-Guangzhou

*Nei*⁵ *si*³.*si*³ *gin*⁶*saam*¹. *t'ai*²*t'ai*²
 2sg try-try CLFclothes see-see

*ngaam*¹-*m*⁴-*ngaam*¹ *tsæk*³
 fit- not-fit wear
 ‘You just try these clothes on and have a look if they fit.’

27. Min-Xiamen

*Gua*³. *sue*³-*sue*³ *k'uā*⁴
 1sg wash-wash see
 ‘I’ll just wash it and see.’

The examples of verb reduplication for the three dialects, given above, show that the idea of tentative action may be considered to be unbounded aspectually. Neither a definite beginning point nor a definite endpoint is placed into focus by such an interpretation of the internal temporal framework of an event.

This appears to be a possibly unique typological feature of Sinitic, as in Bybee et al’s survey of 75 languages, reduplication was consistently used to express the different meaning of action carried out over an extended period of time. There were three main meanings identified for reduplication, all iconic to the form (1994 : ch.5:42-50): iterative (doing an action over and over again); frequentative (often repeated action) and continuative (to keep on doing something). Dineen (1989) in an examination of reduplication in 41 Australian languages, both Pama-Nyungan and non-Pama-Nyungan, found a majority used reduplication to express the iconic meanings. Notably, three languages used reduplication to express attenuation. For example, Ngiyambaa: *yuw-yuwa-y-ga:-dha* [lie-lie-CONJ-a:bit:IMP] ‘Have a nice little lie in!’ (Donaldson 1980). From this we can conclude that Sinitic is not alone in pairing such a meaning with verbal reduplication, but does stand out in making this its main function.

6. Conclusion

A comparative study of aspect has been made for the three Sinitic languages, Mandarin, Yue-Guangzhou and Min-Xiamen. Within the two broad categories of bounded and unbounded aspect, the experiential perfect, the inchoative, the progressive and the continuous aspects were found to be present in the three systems. In addition to this,

verbal reduplication was shown to be used by all three languages to encode the tentative and delimitative aspects.

For the perfective, Mandarin and Yue both have specific markers which are non-cognate, whereas Min-Xiamen uses the strategy of lexical aspect to encode perfectivity by means of resultative complement verbs. In addition to this, some dialects of Minnan have borrowed Mandarin *liǎo* into their aspect systems. Minnan also uses a preverbal auxiliary *wu*² to express the perfect or anterior which is coded by the use of sentence-final particles in Mandarin and Yue (*-le* and *la*¹ respectively). Yue was shown to have a finely nuanced system of aspectual contrasts, particularly in the unbounded or imperfective class, where in addition to a progressive and continuous marker, we find a marker of the habitual *-hoi*¹.

Hence, in addition to the major categories of aspect found to recur in cross-linguistic studies such as Bybee et al (1994), Comrie (1976) and Dahl (1985), the three Sinitic languages discussed in this paper are also typologically significant in that they make use of an experiential perfect aspect marker, to date, instantiated only for a handful of other languages of the world. The category of continuous aspect was also shown to be a common feature of the three languages, clearly possessing a backgrounding function as one of its main uses. These findings similarly contrast with those for recent cross-linguistic studies of aspect where the continuous proved not to be a clear-cut category, with the consequence that it is neither well-exemplified nor adequately discussed. It was also shown that Sinitic possesses a language-specific meaning for the syntactic strategy of verbal reduplication which is infrequently attested in other language families. This is the non-iconic meaning of tentativeness or short duration of an event. The study of Sinitic languages may therefore in future supply more adequate and precise criteria to fill such gaps in cross-linguistic studies.

With respect to diachronic paths of development, the verbal origins of most of these aspect markers are transparent. - In Mandarin and Yue, the process of grammaticization has moved from the status of verb to verb complement of direction or result to aspectual suffix. Many of the aspect markers in these two dialects are in fact still being used side-by-side with either or both the related homophonous independent verb and resultative complement verb, which enables easy identification of lexical sources. Mandarin also displays one preverbal marker of aspect for the progressive.

This relates the discussion back to Min-Xiamen where the preferential strategy for aspectual modification is to use preverbal auxiliary verbs or adverbs in periphrastic constructions. Only continuous and inchoative aspects were marked postverbally. The lexical sources for the progressive and continuous in Minnan (*te*² and *te* respectively) are not attested, although possibly they have evolved from a verb meaning 'to adhere'. Similarly, in Yue, the sources for progressive *-kan*² and perfective *-tso*² still await resolution.

A second subsidiary aim of this paper is to suggest the possibility that in grammar, as in phonology, Minnan may show evidence of an earlier stage of Sinitic in general: one where aspect was indicated by the use of preverbal adverbs, which is attested for written records from the period of Middle Chinese (see Norman 198:123; Cheung 1977, Mei 1981b). In Mandarin and Yue, these aspectual constructions were replaced by other

strategies for encoding aspect, such as postverbal complements: This was possible with the rise of resultative compound verbs from serial verb constructions which exerted pressure on the grammatical system (see Li & Thompson 1974, Mei 1978). Particularly, complements of direction and result extended in use to performing aspectual functions as well. The second stage of evolutionary development for these compound verbs was for the postverbal complement, to lose its tonality (in some dialect groups, for example, Mandarin, but not in Yue) become further desemanticised and grammaticalised into exclusive use as an aspect suffix. The desemanticisation did not, however, lead to complete semantic bleaching but rather to generalisation and abstraction of meaning which shaped the eventual synchronic function of each aspect marker. This can be observed in the semantic constraints and co-occurrence restrictions of contemporary use in Yue and Mandarin. This hypothesis regarding the status of Minnan is further supported by the fact that its aspect system is less grammaticized, shown by the use of periphrasis as the favoured strategy as opposed to bound suffixes.

7. References

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