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論廣東話之補語連詞:"話"

doi:10.6519/TJL.2006.4(1).1

Taiwan Journal of Linguistics, 4(1), 2006 臺灣語言學期刊, 4(1), 2006

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頁數/Page: 1-48

出版日期/Publication Date :2006/06

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# ON THE STATUS OF THE COMPLEMENTIZER WAA6 IN CANTONESE $^{st}$

# Ka-Wai Yeung

#### **ABSTRACT**

Complementizers are generally known as function words that introduce a clausal complement, like *that* in English, for instance (Radford 1997). In many languages, complementizers are re-analyzed from *verba dicendi*, or verbs of 'saying' (Lord 1976; Frajzyngier 1991; Hopper and Traugott 1993; Lord 1993). This paper argues for the existence of a complementizer re-analyzed from a verb of 'saying' in Cantonese by providing a synchronic analysis of *waa6*<sup>1</sup>. *Waa6* has often been assumed to be a lexical verb in serial verb construction because of its following a 'saying' predicate or a cognitive predicate. However, this paper argues that *waa6* is not always a verb, postulating that *waa6* may have different meanings and subcategorizations in different situations, including *waa6*<sub>1</sub> meaning 'say' [ (PP) CP] or [ PP NP], the transitive verb *waa6*<sub>2</sub> meaning 'blame/

<sup>\*</sup> I am most grateful to Elaine Francis and Stephen Matthews for their constructive comments on the early drafts of this article. Thanks are also due to Sze-Wing Tang for providing some of the Cantonese examples and to Hilary Chappell for providing the Taiwanese Southern Min data in her article prior to publication. I am indebted to two anonymous reviewers for their comments and suggestions.

<sup>&</sup>lt;sup>1</sup> As is common practice for Mandarin and Taiwanese romanization, the paper use the Scheme for the Chinese Phonetic Alphbat (*Hanyu Pinyin Fang'an*) and Church Romanization, which was devised by Presbyterian missionaries in the 19<sup>th</sup> century in Taiwan. The tones are not indicated in the transcription, except when they are essential to the analysis. For Cantonese romanization, this article follows the Cantonese Romanization Scheme (*Jyutping*) designed by the Linguistic Society of Hong Kong (LSHK) in 1993. See Tang et al (2002). The Chaozhou data are directly cited from Xu and Matthews (2005), in which the romanization is based on Xu (2004).

condemn' [\_\_ NP CP], and the complementizer  $waa6_3$  selecting a clause [\_\_ IP<sup>2</sup>]. This proposal is supported by different tests, such as aspect marking and argument selection, confirming that the complementizer  $waa6_3$  formally exhibits different properties from that of the verbs  $waa6_1$  and  $waa6_2$ .

#### 1. INTRODUCTION

#### 1.1 Background to the Grammaticalization of Complementizers from verba dicendi

Complementizers, in general, are the words that introduce a complement clause (IP), indicating that such a word is a complement of some lexical head. Complementizers are typically selected by verbs, usually *verba dicendi* (i.e., verbs of 'saying'), like *say*, *tell*, or cognitive verbs describing mentality, like *think*, *doubt*. For example in English, *that* in *I thought that they would come* is categorized as a complementizer.<sup>3</sup>

Heine (2002) describes grammaticalization in terms of a four-stage scenario. At Stage I, the 'initial stage,' the grammaticalized item is expressed with its 'normal' or source meaning. At Stage II, there should be a 'bridging context' that gives rise to an inference in favour of a new meaning that is a more plausible interpretation than the source meaning. Stage III concerns a 'switch context,' in which an interpretation in terms of the old source meaning is no longer allowed. Stage IV is the 'conventionalisation' of the grammaticalized items, where the target meaning no longer needs to be supported by the context that gave rise to it. The four-stage scenario does not occur in discrete stages, but in a continuum leading from Stage I to Stage IV and it has been found to be a helpful model in typological studies of the grammaticalization of

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<sup>&</sup>lt;sup>2</sup> The paper assumes propositional sentences as maximal projections IP projected by the INFL. See Chomsky (1981).

<sup>&</sup>lt;sup>3</sup> The strict definition of complementizers is problematic. See Yeung (2003). While some believe complementizers are function heads that subcategorize a clausal complement IP (Radford 1997; Haegeman and Guéron 1999); and some categorize complementizers by their semantic functions (Wierzbicka 1988; Langacker 1991; Frajzyngier 1995; Givón 2001); some even totally reject the proposition that complementizers form a distinct word class (Hudson 1995; Hudson 2000). Still, these approaches all share the general consensus that complementizers subcategorize for a clausal complement, forming a constituent that acts as the complement for the preceding lexical item (Yeung 2003).

complementizers. Studies of grammaticalization have shown that that one of the paths of re-analysis by which complementizers develop is from *verba dicendi*<sup>4</sup>, as both complementizers and verbs potentially subcategorize for a clausal complement (IP). This potential constitutes the 'right typological precondition' for the grammaticalization of complementizers from verbs, in particular the 'say' verbs. Wu (2004:90-91) observes that 'frequently this [grammaticalization] occurs when a language has serial verb constructions which allow for a sequence of two verbs of communication (one more specific, the second less specific) to become re-analyzed as a sequence of verb + complementizer [...].' Xu and Matthews (2005) also suggest that the productive verb serialization in Sinitic languages provides a 'relevant typological precondition' for complementizer grammaticalization. These preconditions construct the possible context by which the target meaning can be established.

The first exhaustive study of the re-analysis of complementizers from 'say' verbs is by Lord (1976) who surveyed a number of African and Asian languages, mostly Niger-Congo languages, and found that 29 of them appeared to have a complementizer re-analyzed from 'say' verbs. Her work provides extensive cross-linguistic evidence that complementizers can be re-analyzed from 'say' verbs. (1) shows an example from the Kwa language Ewe, where the complementizer  $b\acute{e}$  is re-analyzed from the verb be, meaning 'say'. In (1a), the 'say' verb be takes a propositional complement. Yet, the 'say' verb gblo only takes an NP complement, as in (1b). If gblo takes a propositional complement, the complement clause must be introduced by a complementizer  $b\acute{e}$ , as in (1c) and (1d).

(1)

a. me-**be** mewoe
I-**say** I-do-it
'I said, "I did it".' or
'I said that I did it.'

b. me-gblo-e I-say-it 'I said it.'

<sup>&</sup>lt;sup>4</sup> Regarding the sources of complementizers, Hopper and Traugott (1993) suggest several paths of grammaticalization, including derivation from accusative case morphemes, allatives, datives, deictic demonstratives, lexical nouns, and verbs of 'saying'.

c. \*megblo mewoe d. megblo bé mewoe I-say I-do-it I-say COMP I-do-it 'I said, "I did it".' 'I said that I did it.' (Lord 1976)

Apart from West African languages, the same phenomenon is found in other languages, such as the Creole languages Saramaccan, as in (2), and Sranan, as in (3) (Plag 1993; Veenstra 1996; Lefebvre 2001). <sup>5</sup>

# Saramaccan:

- (2) a. Hén a **táa**: mi nángó and-then 3sg **say** 1sg Asp\_go 'And then he said: I am leaving.'
  - b. A **táki: táa**: a náki hén 3sg **say say** 3sg hit 3sg 'He said that he had hit her.' (Veenstra 1996:155)

# Sranan:

- (3) a. Da' Anansi **taki**, eng go proberi efi eng kan saki fa a nem 'Then Anansi **said**, he would try if he could learn his name.' (Plag 1993:40)
  - b. Mi sabi taki Marlon no fufuru na fowru I know SAY Marlon Neg steal the chicken 'I know that Marlon didn't steal the chicken.' (Plag 1993:36)

For Chinese, some studies (Chui 1994; Hwang 1998; Hwang 2000) have provided evidence to suggest that 'say' verbs are grammaticalized into complementizers introducing propositional complement clauses. These examples include *shuo* in Mandarin, *kong* in Taiwanese, and *waa6* in Cantonese, as shown in (4).

(4) a. Mandarin:

Liji **hui-da** shuo (\*le) meiyou... Liji **answer SHUO** (\*Asp) NO 'Liji's answers (that) "NO."'

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<sup>&</sup>lt;sup>5</sup> It is likely that these Creoles have the same phenomenon as a result of substrate influence from Niger-Congo languages. See Plag (1995).

#### b. Taiwanese:

Goa siongsin kong (\*goe) l I-teng bo phian goa I believe KONG (\*Asp) he must Neg lie I 'I believe that he didn't lie to me.'

#### c. Cantonese:

John gong2 waa6 keoi5 hai6 mei5gwok3 lai4 gaa3 John say WAA6 he be America come SFP 'John said that he was from the U.S.' (Hwang 1998)

These studies are primarily concerned with a diachronic analysis of the grammaticalization of complementizers from 'say' verbs, setting the stage for further investigation through a synchronic analysis of these complementizers.

#### 1.2 The Aims and the Proposal of the Paper

Building on proposals from earlier diachronic studies of Chinese, this paper argues for the existence of a complementizer re-analyzed from a verb of 'saying' in Cantonese by providing a synchronic analysis of waa6. It is tempting to analyze waa6 as a lexical verb in serial verb construction (SVC) because of its following a 'saying' predicate or a cognitive predicate. An SVC analysis is often assumed without any synchronic justification, such as in Matthews and Yip (1994:308), 'gong...wah "talk...say" is a serial verb construction in which the second verb waa6 appears redundant.' Also, Hwang (2000) analyses shuo 'say' construction as 'factive-complementizer shuo "say" serial verb construction,' even though she believes that shuo performs the grammatical function as a complementizer following saying, informative, and cognitive verbs. This paper takes the alternative view that although the waa6 construction is historically derived from an SVC, and waa6 continues to be used as a serial verb in some contexts, there is a usage of waa6 that is fully grammaticalized as a complementizer and synchronically distinct from a serial verb.

This paper postulates that waa6 may have different meanings and subcategorizations in different constructions, including 1) waa6<sub>1</sub> meaning 'say' which subcategorizes either an optional PP and an obligatory CP [ \_\_\_ (PP) CP], or selects a PP and an NP [ \_\_\_ PP NP]; 2) the transitive verb waa6<sub>2</sub> meaning 'blame/ condemn' which subcategorizes an NP and an optional CP [ \_\_\_ NP (CP)], and 3) the

complementizer  $waa6_3$  as a clause introducer selecting a propositional sentence ( \_\_\_ IP). In addition, this paper argues that  $waa6_3$  lacks the syntactic characteristics typical of verbs, providing further evidence that  $waa6_3$  is not a serial verb in this usage. In the following sections, a number of syntactic and semantic arguments will be given to support these proposals.

# The Three waa6's: $waa6_1$ 'say':Intransitive Verb:(PP) CPTransitive Verb:PP NP $waa6_2$ 'blame/condemn':Transitive Verb:NP (CP) $waa6_3$ :Complementizer:IP

Having ascertained the complementizer status of  $waa6_3$ , the paper then looks into the possibility of further grammaticalization of waa6 into a sentence-final particle (SFP) with reference to the case of Taiwanese kong (Simpson and Wu 2002; Wu 2004). In addition, it also contrasts the grammaticalization of waa6 in Cantonese with other reanalyzed complementizers in the Sinitic languages, such as  $t\tilde{a}$  in Chaozhou and Taiwanese kong, showing the process of grammaticalization of waa6 is still in its 'younger' stage. The complementizer status of waa6 also sheds light on word order typology in Chinese. A postulation of how the fact that waa6 is a head-initial complementizer relates to the unusual word order typology in Chinese will be given in the concluding section.

#### 2. A PRELIMINARY ANALYSIS BASED ON CANTONESE CORPUS DATA

Before probing into the syntactic and semantic evidence, this section provides a brief sketch of the Cantonese data gathered from Cantonese corpora. These data provide some preliminary information on the different usages of *waa6*. Most of the data used in the section are taken from two corpora, the Cantonese Radio Corpus (CRC) by Francis, Yiu, Matthews, and Chu (in preparation), and the Hong Kong Cantonese Adult Language Corpus (HKCAC) by Law et al. (2002).



#### 2.1 The Verbal Usage of waa6

The basic usage of *waa6* is as a 'say' verb, as in (5a). As a 'say' verb, *waa6*<sub>1</sub> subcategorizes a CP ( \_\_ CP) and it exhibits several verbal properties, including aspect marking (5b) and (5c), selecting an optional PP goal argument (5d) and (5e), and following an auxiliary (5f).

- (5) a. keoi5 waa6 [CP ji5hau6 doul m4 heoi3 lak3] 3sg WAA<sub>1</sub> [CP forever all Neg go Part] '(S)he said that (s)he would never go again.'
  - b. keoi5 waa6\_zo2 [CP ji5hau6 doul m4 heoi3 lak3] (HKCAC) 3sg WAA1\_Asp [CP forever all Neg go Part] '(S)he said that (s)he would never go again.'
  - c. ngo5 mou5 waa6\_gwo3 [CP lei5 co3] (CRC)
    1sg Neg WAA1\_Asp [CP 2sg wrong]
    'I didn't say you're wrong.'
  - d. keoi5 waa6 [PP bei2 ngo5 teng1], (HKCAC)

    3sg WAA<sub>1</sub> [PP to 1sg listen],
    [CP/NP loeng5ci3 lo1]
    [CP/NP twice Part]

    '(S)he told me that it happened twice.' or

    '(S)he told me twice.'
  - e. zau6 waa6 [PP bei2 ngo5dei6 zil] (CRC) then WAA1 [PP to 1pl know] [PP jau5 mel saanglji3 ho2ji3 zou6] [PP have what business can do] 'Then tell us what kind of business we can do.'
  - f. ngo5 gok3dak3 ngo5 jing1goi1 (CRC)
    1sg think 1sg Mod
    waa6 bei2 keoi5 teng1 [NP li1go3 cing4fong3]
    WAA1 to 3sg listen [NP this situation]
    'I think I should tell him/her the situation.'

Sometimes,  $waa6_1$  is used in a metaphorical sense. This metaphorical extension bleaches the original verb of its meaning of 'say' and the verb meaning slowly alters from to that of a 'cognitive' sense, such as 'think.' Hwang (1998) suggests that the metaphor involved here is probably SPEECH IS THOUGHT (Chui 1994; Lord 1993). In (6),  $waa6_1$  may also be used as a cognitive verb, meaning 'think.'

(6) gam2 lei5 waa6 [CP hai2 mai6 hou2 fung3ci3 aa1?] (HKCAC) then 2sg WAA<sub>1</sub> [CP is Neg very ironic Part] 'So, don't you think it's ironic?'

Apart from the 'say' verb  $(waa6_1)$ , there is another verb  $waa6_2$  meaning 'blame', 'condemn' or 'criticize.' The subcategorization of  $waa6_2$  is different from  $waa6_1$  ( \_\_\_\_ CP). It selects an NP, the patient argument, and a CP, ( \_\_\_\_ NP CP), as (7a) and (7b). The passive construction of  $waa6_2$  (7c) is also common. It should be noted that for the  $waa6_2$  construction, it is possible to have another waa6 before the complement clause, as in (7d). It is likely that the second waa6 in (7d) is the complementizer  $waa6_3$ . A detailed analysis will be provided in later sections  $^6$ .

- (7) a. ...waa6 [NP zi6gei2] [CP sat1wan4 aa3] (CRC) ...WAA2 [NP oneself] [CP absent-minded Part] ...'blamed yourself for being scatter-brained.'
  - b. tau4jat1nin4 zau6hai6 waa6 [NPlei5] (CRC) first year then be WAA2 [NP2sg]
    [CPngo5 m4 zoi6fu4 keoi5 laa1]
    [CP 1sg Neg care 3sg Part]
    'In the first year, (s)he blamed me for not taking care of him/her.'
  - c. keoi5 bei2 jan4 waa6 [CP m4 sikl jing1man2] 3sg Pass people WAA2 [CP Neg know English] '(S)he is condemned for not knowing English.'
  - d. *jan4dei6 waa6* [NP keoi5] waa6 [m4 sik1 jing1man2] people WAA<sub>2</sub> [NP 3sg ] WAA [Neg know English] 'People condemn him/her for not knowing English.'

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<sup>&</sup>lt;sup>6</sup> It is worthy noting a methodological point here, as Matthews (2003:8) notes that some of these sentences, when presented in isolation to a lay Cantonese speaker, produce a "puzzled reaction." He observes that presenting such sentences out of the blue "is no way to test the productivity of a structure so dependent on discourse," as many of the constructions belong to colloquial register and their use is closely tied to the discourse context. Therefore, this paper assumes the same methodological concern, stipulating that "(w)hile some aspects of the phenomenon can be discussed on the basis of single sentences, the need for such a discourse context should be borne in mind in the following discussion."

#### 2.2 The Clausal Complement-introducing waa6

In addition to the verbal usages of waa6, waa6 can also be used to introduce a complement clause. From the analysis of the preliminary corpus data, it is found that a number of predicates can co-occur with waa6 as the complement-clause introducer. These predicates fall into three main categories: 'say' predicates indicating any forms of speech; cognition and perception predicates describing the speaker's mentality or perception; and informative predicates. This following list shows all the predicates found to co-occur with waa6 in the two corpora, with waa6 in a complement-introducing position. The list of actual instances in which waa6 were found is given in Appendix II.

'say' predicates:		cognition and perce	ption predicates:
gong2 'say'	king1 'discuss'	gok3dak1'think'/	soeng2 'think'/
tai4 / tai4dou3 /	tai4ceot1	'believe'	ʻplan'
tai4kap6	'suggest'	heilmong6 'hope'	lam2 'think'/
'mention'	man6 'ask'	tai2 'see'	ʻplan'
daap3 'answer'	sing4jing6		
giu3zou6	'admit'		
'be called '	akl 'cheat'		
jyun3 'grumble'	gaai2sik1		
san3 'grouch'	'explain'		
giu3 'shout'	teoil 'refuse'		
laai6 'blame'	tam3 'comfort'		
'informative' predicates:		Other predicates:	
tunglzil	se2 'write'	hai6 'be'	
'inform'			
		ļ	

From the data, it can be seen that predicates that can co-occur with waa6 in the complement-introducing position are mostly the ones that

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<sup>&</sup>lt;sup>7</sup> It should be noted that the same also applies to the Mandarin *shi* 'be' as in:

xin de da-yi shi shuo... letter DE main-points be explain 'The main point of this letter is to narrate...' (Hwang 1998)

potentially select a clausal complement, i.e., the 'say' predicates, the 'cognition and perception' predicates, and the 'informative' predicates. Even for *hai6* 'be,' which is not in these three categories, *hai6* 'be' is still a potential predicate selecting a clause as its complement. While in some cases, *waa6* appears unambiguously with a complementizer reading, many of the cases in which the 'say' and informative predicates are followed by a *waa6*-clause may be ambiguous between serial verb and complementizer interpretations, i.e., the bridging contexts postulated by Heine (2002). In such cases, both old (SVC) and new (complementizer) interpretations are available, even though the new meaning is favoured.

Finally, the corpora even show *waa6* with some English predicates. In code-mixing situations, speakers may use *waa6* to introduce propositional complements after an English predicate that potentially subcategorizes a *that*-clause. Note that such the data are found in both our Cantonese corpora:

- (8) ngo5 doul m4 EXPECT waa6 [zan1hai6 wui5 hai6] (CRC) 1sg all Neg expect WAA [really Mod is] 'I didn't expect that would really be true.'
- (9) keoi5 ENCOURAGE ngo5 waa6 kei4sat6 laam4sing3 (HKCAC)
  3sg encourage 1sg WAA actually men
  dou1 jau5 hou2 zan1zi3 ge3 jau5ji4
  all have very sincere Poss friendship
  'He encouraged me to believe that actually men also have sincere friendship.'

This phenomenon may suggest that intrinsically, waa6 may be understood and used as a complementizer. When speakers encounter a complement-taking predicate which potentially selects a complementizer that in English, they probably select the word waa6 as the complementizer. Even if the predicate actually does not allow a that-complement in English<sup>8</sup>, like encourage in (9), the code-mixing speaker probably foresees its potential of taking a propositional complement and picks out waa6 to introduce the complement because of overgeneralization. Or, speakers may actually be forced to choose waa6

<sup>&</sup>lt;sup>8</sup> The verb *encourage* only allows an NP followed by a *that*-clause in extrapositions, e.g., *It encourages me that she is doing well.* 

because it is the only complementizer available to follow a verb in Cantonese. While Example (9) may be ambiguous as to whether it takes a serial verb or complementizer reading, i.e., between 'he encouraged me saying [...]' or 'he encouraged me (to believe) that [...],' the serial verb reading in (8) is definitely incompatible with the context. This usage probably corresponds to Heine's (2002) 'switch context,' in which the source meaning (verbal usage of waa6) is no longer compatible.

After the preliminary analysis of the Cantonese corpus data, we have seen the plausibility of analyzing waa6 into three different words with different meanings, syntactic properties, and subcategorizations. From the fact that waa6 may co-occur with various predicates, it is likely that waa6, in fact, functions as a complementizer that introduces a complement clause in some cases. To justify this postulation, more syntactic and semantic evidence is necessary. This will be the main focus of the following sections.

#### 3. SYNTACTIC EVIDENCE

This section aims to evaluate the syntactic evidence that *waa6*, apart from its verbal usage, may function as a complementizer in some constructions. The first part focuses on the different argument selection properties of different senses of *waa6*, justifying them as separate lexical entries. The second part demonstrates the loss of the verbal behaviour of *waa6* in the complement-introducing position, which involves the inability of being aspect marked and undergoing verb-doubling. The third part will be a constituency test proving that *waa6* forms a constituent with its following IP.

# 3.1 Argument Selection

As a 'say' verb,  $waa6_1$  can select an optional PP as its goal argument (10), such as gong2 (11). However, in the complement-introducing

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<sup>&</sup>lt;sup>9</sup> In code-mixing situations, it is likely that speakers select *waa6* in preference to *that* due to constraints on code-mixing which generally exclude 'system' morphemes (i.e., 'closed-class' words, such as specifiers, quantifiers, or complementizers. See Chan (1998).

position, the goal argument can only follow the first verb gong2, but not waa6 (as shown in (12) and (13)). The ungrammaticality of (13) shows that waa6 in (13) cannot be  $waa6_I$  in a SVC with gong2 and that the verbal behaviour of  $waa6_I$  which takes a PP argument has been lost. It is therefore likely that waa6 in (12) is the complementizer  $waa6_3$ .

- (10) keoi5 waa6 [PP bei2 ngo5 teng1] lei5 wui5 lai4
  3sg say [PP to 1sg listen] you Mod come
  '(S)he said to me that you would come.'
- (11) keoi5 gong2 [PP bei2 ngo5 teng1] lei5 wui5 lai4 3sg say [PP to 1sg listen] you Mod come '(S)he said to me that you would come.'
- (12) keoi5 gong2 [PP bei2 ngo5 teng1] waa6 lei5 wui5 lai4 3sg say [PP to 1sg listen] WAA you Mod come '(S)he said to me that you would come.'
- (13) \*keoi5 gong2 waa6 [PP bei2 ngo5 teng1] lei5 wui5 lai4 3sg say WAA [PP to 1sg listen] you Mod come

This argument selection property is a useful tool to identify the status of waa6 in many constructions appearing to be SVC's and it will be used in later sections.

#### 3.2 Loss of Verbal Behaviour

During the re-analysis process, semantic bleaching often occurs on a grammaticalized item and some of the syntactic properties exhibited by the original item are then lost (Lord 1976; Hopper and Traugott 1993). Regarding the case of waa6, it is observed that the verbal properties of  $waa6_1$ , such as aspect marking and undergoing verb-doubling, are lost, as shown by the following examples.

#### **Aspect marking**

Generally, in SVC's, either verb can be aspect marked, as (14) and (15). As a 'say' verb,  $waa6_1$  can be aspect-marked by gwo3 or zo2 (17), just like other 'say' verbs such as gong2 (16). In (18), when waa6 follows a 'say' verb, gong2, only gong2 can be aspect-marked (18a), but not waa6 (18b).

- (14) a. ngo5 pui4 keoi5 sik6\_gwo3/zo2 faan6 1sg accompany 3sg eat\_Asp rice 'I have had dinner with him/her.'
  - b. ngo5 pui4\_gwo3/zo2 keoi5 sik6 faan6 1sg accompany\_Asp 3sg eat rice 'I have had dinner with him/her.'
- (15) a. keoi5 heoi3\_gwo3/zo2 king1 [IP gaa1 m4 gaa1 jan4gung1]
  3sg go\_Asp discuss [IP add Neg add salary]
  (bat1gwo3 mei6 jau5 kyut3ding6)
  (but Neg have decision)
  '(S)he has tried to discuss whether to have a pay rise (but there hasn't been a decision).'
  - b. keoi5 heoi3 kingl\_gwo3/zo2 [IP gaal m4 gaal jan4gungl]
    3sg go discuss\_Asp [IP add Neg add salary]
    (bat1gwo3 mei6 jau5 kyut3ding6)
    (but Neg have decision)
    '(S)he has tried to discuss whether to have a pay rise (but there hasn't been a decision).'
- (16) keoi5 gong2\_gwo3/\_zo2 [IP lei5 wui5 lai4]
  3sg say\_Asp [IP 2sg Mod come]
  '(S)he said you would come'
  - '(S)he said you would come.'
- (17) keoi5 waa6\_gwo3/\_zo2 [IP lei5 wui5 lai4] 3sg WAA\_Asp [IP 2sg Mod come] '(S)he said you would come.'
- (18) a. keoi5 gong2\_gwo3/zo2 waa6 [IP lei5 wui5 lai4]
  3sg say\_Asp WAA [IP 2sg Mod come]

  (S)he said that you would come.'
  b. \*keoi5 gong2 waa6 goog2 2
  - b. \*keoi5 gong2 waa6\_gwo3/\_zo2 [IP lei5 wui5 lai4] 3sg say WAA\_Asp [IP 2sg Mod come]

One possibility is to suggest that waa6 in (18) has become a defective verb that cannot take any aspect markers, like the verb hai6 'be' (c.f. \*hai6\_zo2, \*hai6\_gwo3). Another possibility is that in a complement-introducing position, waa6 has lost its verbal property and become a complementizer. The confusion is expected and predicted in a bridging context, in which both serial verb and complementizer readings are possible.

#### **Verb-doubling test**

In Saramaccan and Sranan, we can observe a similar phenomenon, i.e., a lexical item serving both as a verb and as a *that*-type complementizer (refer to (2) and (3)). To distinguish between the verbal function and the complementizing function, Lefebvre (2001) uses the verb-doubling test, which is also known as 'verb-topicalization' (Matthews and Yip 1998) or 'verb-fronting' (Matthews 2003). In Creoles, the basic function of verb-doubling is for emphasis and concession. (Matthews 2003). As a verb, *taki/táa* may participate in the verb doubling phenomena, but as a complementizer it cannot. The contrast in grammaticality between (19a) and (19b) is shown in Lefebvre (2001):

#### Saramaccan:

(19) a. Verb:

táa a táa: m'e nángó say 3sg say: 1sg-Neg Asp-go 'He really said: I am not leaving.'

b. Complementizer:

\* táa a táki táa á búnu say 3sg say say 3sg-Neg good (Lefebvre 2001:113)

Verb-doubling phenomenon is also a productive phenomenon in Cantonese syntax, carrying a similar emphatic or concessive sense as in the Creoles (Matthews and Yip 1998), as (20).

(20) fan3 zau6 fan3\_zo2 hou2 loi6 laa1
sleep then sleep\_Asp very long Part
(daan6hai6 zung6 mei6 fan3\_zoek6)
(but still Neg sleep\_Asp)
'He went to sleep some time ago (but hasn't been asleep yet).'

In serial verb constructions, both the main verb and the serial verb may undergo verb-doubling, such as *pui4* and *sik6* in (21), as well as *heoi3* and *king1* in (22):

- (21) a. pui4 zau6 pui4\_gwo3 keoi5 sik6 faan6 ge2 accompany then accompany\_Asp 3sg eat rice Part (daan6 keoi5 hau6mei1 heoi3 bin1 ngo5 m4 ceng1cok2) (but 3sg later go where 1sg Neg certain) 'I did have dinner with him/her (but I don't know where (s)he was after then).'
  - b. sik6 zau6 pui4 lei5 sik6\_zo2 faan6 laak3 eat then accompany 2sg eat\_Asp rice Part (gam2 lei5 zung6 soeng2 heoi3 bin1) (then 2sg still want go where)
  - 'I have already had dinner with you (so where else do you want to go?)'
- (22) a. heoi3 zau6 heoi3\_zo2 king1 gaa1 jan4gung1 ge2
  go then go\_Aso discuss add salary Part
  (bat1gwo3 mou5 git3gwo2)
  (but Neg result)
  - '(I) did go and discuss a pay rise (but there's been no result).'
  - b. king I zau6 heoi3 king I zo2 gaal jan4gung I ge2
    discuss then go discuss Asp add salary Part
    (bat1gwo3 lou5sai3 teng I m4 teng I zau6 m4 zi1 laak3)
    (but boss listen Neg listen then Neg know Part)
  - '(I) did go and discuss a pay rise (but I don't know whether the boss would listen to me).'

When the verb-doubling test is applied to *waa6*, it appears that *waa6* only allows verb-doubling in its verbal usage, as in (23a); but disallows verb-doubling in its complementizer usage, i.e., when it follows the predicate *gong2* 'say' (23b), or *lam2* 'think' (23c):

# (23) a. Verb:

'(S)he really said that (s)he was not free (but she came eventually).'

Complementizer:

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b. {gong2 /*waa6} keoi5 zau6 gong2 waa6 [IP m4 dak1haan4] {say /*WAA} 3sg then say WAA [IP Neg free] (daan6 hau6mei1 jau6 lei4_zo2) (but eventually but come_Asp)
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'(S)he really said that (s)he was not free (but she came eventually).'

c. {lam2 /\*waa6} keoi5 zau6 lam2 waa6 [IP m4 dak1haan4] {think / \*WAA} 3sg then think WAA [IP Neg free] (daan6 hau6mei1 jau6 lei4\_zo2) (but eventually but come\_Asp)

'(S)he really thought that (s)he was not free (but she came eventually).'

The test shows that waa6 in the complement-introducing position lacks verbal behaviour, to the extent that it cannot undergo verb-doubling. According to the results of this test, we may draw a similar conclusion to that in the Creole languages discussed, namely that Cantonese waa6 functions more like a complementizer than a serial verb in such a construction.  $^{10}$ 

#### 3.3 Constituency Test

If  $waa6_3$  is a complementizer, it must form a constituent, namely CP, with the following IP. Even though constituency tests do not directly prove the complementizer status of waa6, they are necessary for identifying waa6-clauses as single constituents. If waa6-clauses fail to be proven as constituents, the postulation of waa6 as a complementizer

<sup>&</sup>lt;sup>10</sup> However, it is observed that the second verb in certain Cantonese serial verb constructions may not undergo verb-doubling either, as in (i):

i. {co5/\*faan1} ngo5 zau6 co5\_gwo3 sai1tit3 [faan1 uk1kei2] {sit/back} 1sg then sit\_Asp West Rail [back home] 'I really took the West Rail home.'

In (i), *co5* is the first verb and *faan1* is the second verb in the SVC. It is proposed that the unacceptability of (i) may be caused by the complement NP *uk1kei2* 'home,' c.f.:

ii. {co5/faan1} ngo5 zau6 co5\_gwo3 sai1tit3 faan1 {sit/back} 1sg then sit\_Asp West Rail back (heoi3 zau6 mei6 si3\_gwo3) (go then Neg try\_Asp)

<sup>&#</sup>x27;I've tried taking the West Rail back home (but not traveling from home)."

selecting an IP complement will be undermined. In this section, coordination tests are carried out to investigate the constituent structure of *waa6*-clauses.

Assuming *waa6* is a complementizer following predicates like *gong2* 'say' or *lam2* 'think,' it should form a CP constituent with the following IP. Example (24) shows the possible coordination of *waa6*-clauses (CPs). The coordinating conjunction *tung4maai4* 'and' is optional as in Cantonese parallel coordination can be generally achieved by juxtaposition (Matthews and Yip 1994) However, the coordinating conjunction *waak6ze2* 'or' is obligatory.

# (24) a. With gong2 'say':

keoi5 gong2\_gwo3 [cpwaa6 m4 dak1haan4,] (tung4maai4)
3sg say\_Asp [cpWAA Neg free,] (and)
[cp(waa6) m4 soeng2 gin3\_dou2 ngo5,] so2ji3 m4 heoi3
[cp(WAA) Neg want see\_Asp 1sg,] so Neg go
'(S)he said that (s)he was not free and that (s)he didn't want to see me, so (s)he would not come.'

## b. With *lam2* 'think':

ngo5 lam2\_zyu6 [CPWAA keoi5 m4 heoi3,] waak6ze2 lsg think\_Asp [CPWAA 3sg Neg go,] or [CP(waa6) ngo5 dak1haan4,] sin1 wui5 ceot1jin6 [CP(WAA) 1sg free,] only\_when Mod appear 'I think I will be there if (s)he doesn't go or if I am free.'

For the predicate  $waa6_2$  'blame/ condemn' however, the sentences appear to be slightly worse than the examples in (24), probably because it becomes unclear whether the repeated waa6 is  $waa6_1$ ,  $waa6_2$ , or  $waa6_3$ :

# (25) a. With waa62 'blame/ condemn':

ji4gaal dil jan4 seng4jat6 now Cl people always waa6<sub>2</sub> hoeng1gong2 ge3 daai6hok6saang1, condemn Hong Kong Poss university students, [CPWaa6 jing1man2 m4 hou2,] [CPWAA English Neg good,] [CP(?\*waa6) zung1man2 m4 hou2] [CP(?\*WAA) Chinese Neg good]

'Now, people always condemn the university students in Hong Kong for having a low ability in English and a low ability in Chinese.'

#### b. In passive voice:

hoenglgong2 ge3 daai6hok6saangl Hong Kong Poss university students seng4jat6 bei2 jan4 waa6 always Pass people condemn [cPwaa6 jinglman2 m4 hou2,] [cPWAA English Neg good,] [cP(?\*waa6) zunglman2 m4 hou2] [cP(?\*WAA) Chinese Neg good]

'Now, the university students in Hong Kong are always condemned for having a low ability in English and for having a low ability in Chinese.'

It is observed that these sentences sound better if a conjunction, like *tung4maai4* 'and,' is added:

## (26) a. With waa62 'blame/ condemn':

dil jan4 seng4jat6 ji4gaa1 now Cl people always hoenglgong2 ge3 waa62 daai6hok6saang1, condemn Hong Kong Poss university students, [cpwaa6 jing1man2 m4 hou2,[CPWAA **English** Neg good,] tung4maai4 [CP(waa6) zung1man2 m4hou2] [CP(WAA) Chinese Neg good]

'Now, people always condemn the university students in Hong Kong for having a low ability in English and a low ability in Chinese.'



#### b. In passive voice:

hoenglgong2 ge3 daai6hok6saangl Hong Kong Poss university students seng4jat6 bei2 jan4 waa6<sub>2</sub> always Pass people condemn [cPwaa6 jing1man2 m4 hou2,] [cPWAA English Neg good,]

tung4maai4 [CP(waa6) zung1man2 m4 hou2] and [CP(WAA) Chinese Neg good] 'Now, the university students in Hong Kong are always condemned for having a low ability in English and for having a low ability in Chinese.'

It is not clear why coordination without an explicit conjunction tung4maai4 'and' appears to be less grammatical. In cases without the second waa6, we have IP-, not CP-, conjunctions. Although the possible coordination of waa6-clauses does not directly prove the complementizer status of waa6, it ascertains the fact that waa6 forms a constituent with the following IP and is consistent with the previous analyses of waa6 as a potential complementizer.

#### 4. SEMANTIC EVIDENCE

After demonstrating the syntactic evidence, this section will provide some semantic evidence that supports the proposal that  $waa6_3$  is a complementizer, rather than a verb in SVC with other predicates. The co-occurrence of two waa6's in sentences will be first discussed, suggesting that there may be two different waa6's with different semantic/ pragmatic functions. The second part analyzes the occurrence of waa6 following non-factive predicates, a context where waa6 cannot be interpreted as a 'say' verb.

## 4.1 The Co-occurrence of waa6's

For SVC, the co-occurrence of different senses of the same predicate is found to be problematic, such as <sup>11</sup>:

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<sup>&</sup>lt;sup>11</sup> It is suggested that the longer the intervening elements between the two verbs, the

(27) \*keoi5 bei2 cin2 bei2 ngo5 3sg give money give 1sg '(S)he gave money to me.'

Even though Hwang (1998) proposes that *waa6* may have different meanings in different situations, such as as a 'saying' verb, or as a complementizer, she suggests that the co-occurrence of *waa6*'s in a series is not possible, as in:

(28) keoi5 waa6 (\*waa6) heong1gong2 hou2 dei6fong1 3sg say (\*WAA) Hong Kong good place '(S)he said that Hong Kong was a nice place.' (Hwang 1998)

The appearing ungrammaticality of the immediate co-occurrence of waa6's may be due to the 'Obligatory Contour Principle', which states that consecutive phonological identical/ similar features are banned in underlying representations <sup>12</sup>. Chappell (to appear) relates this observation with Chao's (1968) rule of haplology in Chinese linguistics, whereby 'two consecutive instances of the same syllable in Mandarin simplex clauses result in the omission of the second'. The co-occurrence of waa6's can only be grammatical in some structures, such as with intervening aspectual markers, particles, pauses. These examples are shown in (29) to (31).

#### With aspectual marker intervening:

(29) keoi5 waa6\_gwo3 waa6 [IP m4 dak1haan4 lai4] 3sg say\_Asp WAA [IP Neg free come] '(S)he said that (s)he was not free to come.'

## With particle intervening:

(30) keoi5 waa6 le1 waa6 [IP m4 dak1haan4 lai4] 3sg say Part WAA [IP Neg free come] '(S)he said that (s)he was not free to come.'

more acceptable sentence becomes. (Tang 1998a)

<sup>&</sup>lt;sup>12</sup> For discussion of the 'Obligatory Contour Principle' (OCP), see McCarthy (1981, 1986).

# With pause:

(31) keoi5 waa6 waa6  $[_{IP} m4 dak1haan4 lai4]$  3sg say WAA  $[_{IP} Neg free come]$  '(S)he said that (s)he was not free to come.'

It is interesting to note that in other Sinitic languages, such as Chaozhou and Taiwanese, the immediate co-occurrence of the verbal 'say' and the re-analyzed complementizer 'say' is accepted without any intervening elements, which may reflect a more 'advanced' stage of grammaticalization of Chaozhou  $t\tilde{a}$  and Taiwanese kong:

- tui" (32) a. *i* tã tã "lщ tsio sẽ tso m 3sg say say 2sg this way do not right '(S)he said "What you did was wrong".' (Xu and Matthews 2005)
  - b. *lín ban-chek-à kah* goá *kóng kóng*2pl youngest\_uncle comitative-marker 1sg say say *goá oân-á ū chò siān-sū là*1sg also have do good\_deed Part

    'Your youngest uncle told me that I had also done some good deeds.'

    (Chappell to appear)

Apart from these constructions with intervening elements, it is also possible to have an immediate surface adjacency of waa6 without intervening elements, at least in the case of transitive verb  $waa6_2$  'blame/ condemn', as (33). Note that it is only a case of surface adjacency, as assuming a movement analysis for passivization, there is a trace left between the two waa6's.

# <u>Immediate</u> (surface) adjacency without intervening elements:

(33)  $keoi5_i$  bei2 jan4 waa6  $t_i$  [CP waa6 m4 sik1 jing1man2] 3sg<sub>i</sub> Pass people condemn  $t_i$  [CP WAA Neg know English] '(S)he is condemned in that she doesn't know English.'

The two superficially adjacent *waa6*'s may be made possible by the trace left after the NP-movement. It is also possible that the lexical sense

of the transitive *waa6* is maximally distinct from the semantically bleached complementizer *waa6*, facilitating their juxtaposition.

It might be argued that the second waa6 is not necessarily  $waa6_3$ , but actually  $waa6_1$  'say' in a serial construction with  $waa6_2$  'blame/condemn'. Yet, this possibility can be ruled out by the ungrammaticality of (35) where waa6 is not able to take the PP argument. (Please refer back to (12)-(13).)

- (34) keoi5 bei2 jan4 waa6 waa6 [IP m4 sik1 jing1man2] 3sg Pass people condemn WAA [IP Neg know English] '(S)he is condemned for not knowing English'
- (35) \*keoi5 bei2 jan4 waa6 waa6 [PPbei2 keoi5 teng1]
  3sg Pass people condemn WAA [PP to 1sg listen]
  [IP m4 sik1 jing1man2]
  [IP Neg know English]
  '(S)he was condemned by people, telling her that she doesn't know English.'

The ungrammaticality of (35) implies that the second *waa6* that introduces the complement clause cannot be there in its verbal usage, but as a complementizer ( $waa6_3$ ).

#### **4.2 Non-factive Predicates**

Non-factive predicates presuppose the complement clause as being false (Ludlow 1996:406-461). For example, in (36a), in order to make the non-factive reading felicitous, there exists a presupposition that proposition (36b) must be false.

(36) a. He thought that she went to the church. (non-factive reading)b. She went to the church.

Owing to its occurrence following non-factive predicates, such as *ji5wai4* 'think,' *waai4ji4* 'suspect,' and *lam2zyu6* 'think,' *waa6*<sub>3</sub> cannot be interpreted as a 'say' verb. For example, (37a) only presupposes (37b) as false, but not (37c). Therefore, the complement proposition should be (37b), not (37c); hence, it forces *waa6* to be given a complementizer reading, like the English *that*, instead of a verbal meaning (*waa6*<sub>1</sub> 'say'). This corresponds to the 'switch context' stage of the grammaticalization

pathway (Heine 2002), in which the new context is incompatible with the source meaning, i.e., the verbal meaning of *waa6* as 'say' is incompatible within the context.

- (37) a. ngo5 zung6 ji5wai4 waa6 [lei5 m4 dak1haan4 tim1]
  1sg again think WAA [2sg Neg free Part]
  'I thought that you were not free.'
  - b. lei5 m4 dak1haan4 (F)

    2sg Neg free
    'You were not free.'
  - c. ngo5 waa6 lei5 m4 dak1haan4 (T/F??)
    1sg say 2sg Neg free
    'I said that you were not free.'

Sometimes, waa6 sentences with a potential non-factive reading may be thought to be ambiguous, as in (38a). Some may argue that (38a) may have two possible readings and the verbal interpretation of waa6 is still salient. In fact, (38a) only entails the non-factive reading of waa6 as being a complementizer, i.e., only the presupposition of heoi3 bak1ging1 'go to Beijing' is false, as demonstrated in (38b). It does not presuppose the falsity of the proposition in (38c) waa6 heoi3 bak1ging1 'say to go to Beijing'. Thus, waa6 following a non-factive predicate, as in (38a), rules out the possible verbal interpretation of waa6.

- (38) a. ngo5 lam2\_zyu6 waa6 [IP heoi3 bak1ging1]
  1sg plan\_Asp WAA [IP go Beijing]
  'I planned to go to Beijing (but I didn't).'
  (Reading 1: non-factive, waa6 as complementizer)
  \* 'I planned to say that I would go to Beijing.'
  (Reading 2: waa6 as 'say')
  - b. ngo5 lam2\_zyu6 waa6 [IP heoi3 bak1ging1],
    1sg plan\_Asp WAA [IP go Beijing],
    dim2zi1 mou5 cin2
    but Neg money
    'I planned to go to Beijing, but I have no money.'
    (Presupposition: heoi3 bak1ging1 'go Beijing' is false)
  - c. ngo5 waa6 [IP heoi3 bak1ging1], (T/F??)

    1sg WAA [IP go Beijing],

    'I said I went to Beijing.' (T/F??)

The occurrence of *waa6* with non-factive predicates rules out the possible verbal interpretation of *waa6*. It provides the switch context (Stage III), in which the source meaning (as a 'say' verb) is no longer compatible with the non-factive context of the sentence; hence foreshadowing that the target meaning (as a complementizer) provides the only possible interpretation.

# 5. FURTHER GRAMMATICALIZATION OF WAA6 INTO A SENTENCE-FINAL PARTICLE (SFP)

Heine (2002) hypothesizes a four-stage grammaticalization pathway in which various contexts are involved. The four-stage grammaticalization pathway is represented as follows:

Stage I II III IV
Initial stage > Bridging context > Switch context > Conventionalization

The pathway for 'say'-complementizer in Sinitic languages may possibly be (Xu and Matthews 2005):

I II
Initial stage >Bridging context >
'say' verb Quotative marker
(following speech act verbs)

III IV
Switch context > Conventionalization
Complementizer Complementizer
(following cognition/ perception verbs) (following epistemic modals)

For some complementizers developed from 'say' verbs, all stages in the entire pathway have been observed, such as  $t\tilde{a}$  in Chaozhou:

(39) a.  $\frac{\text{Initial Stage (I):}}{i} t\tilde{a}$  as a lexical verb i  $si\tilde{a}$   $t\tilde{a}$  3sg first say 'He will say (it) first.'

b. Bridging context (II): tã as a quotative marker

i tã tã "lu tsio sẽ tso m tui" 3sg say say 2sg this way do not right '(S)he said "what you did was wrong".'

c. Switch context (III):  $t\tilde{a}$  as a complementizer following cognition/perception verbs

ua siō \*(tā) mazek tio ? tsiōpaŋ
1sg think \*(say) tomorrow should go.to.work
'I thought I had to go to work tomorrow.'

d. Conventionalization (IV):  $t\tilde{a}$  as a complementizer following epistemic modals

i upian  $t\tilde{a}$  s $\tilde{a}$  me s $\tilde{a}$  zek men  $\tilde{i}$  3sg can say three nights three days not need sleep '(S)he can go without sleep for three days and three nights.' (Xu and Matthews 2005)

Unlike the Cantonese waa6, the Chaozhou tã is in a more 'advanced' stage of grammaticalization. For example, the immediate co-occurrence of  $t\tilde{a}$ 's is acceptable without any intervening elements, as (39b); whilst the co-occurrence of Cantonese waa6 is problematic, and is acceptable only with an intervening element. (Please refer back to §4.1 on the co-occurrence of waa6's.) Moreover, the complementizer usage of the Chaozhou  $t\tilde{a}$  is conventionalized when it follows a cognition/perception predicate where it becomes an obligatory element, as in (39c). The Cantonese waa6, on the other hand, is never observed to be obligatory as a complementizer. For the case of the Taiwanese kong, Chappell (to appear) suggests that it appears to be 'well-advanced' in terms of the stages of grammaticalization. Apart from the possibility of immediate co-occurrence (32b), she observes that *kong* may follow preceding emotion, psych-verbs <sup>13</sup> and possibly other stative verbs, allowing 'what might be normally non-complement taking verbs.' For instance, hoanlo kong 'be anxious that' and hoa-hi kong 'to rejoice that' are found in Taiwanese corpora, but not in the two Cantonese corpora cited in this study. If the Chaozhou tã or the Taiwanese kong is said to be fully

<sup>&</sup>lt;sup>13</sup> The psych-verbs described in Chappell are not the cognition/ perception verbs discussed in the paper. They are the 'verbs' that are more adjective-like and depict personal emotions. Examples of these verbs include *hoanlo* 'be anxious', or *hoa-hi* 'be rejoice'.

grammaticalized from a 'say' verb to a complementizer, Cantonese waa6 should be regarded as in its 'earlier' stages of grammaticalization. As examined in the paper, there have been many clear instances of waa6 in a bridging context (Stage II) serving as quotative markers following speech act verbs. Some examples appear to suggest instances of waa6 in a switch context (Stage III), in which the verbal meaning of waa6 is disallowed. These include the examples of waa6-clauses following cognition/ perception predicates, especially the non-factive predicates. Instances of waa6 in switch contexts indicate a later stage of grammaticalization. Yet the grammaticalization of waa6 is still quite far from being fully grammaticalized, as  $waa6_3$  is still an optional element, but not a conventionalized obligatory complementizer, when introducing the clausal complement.

The previous sections have confirmed the complementizer status of Cantonese *waa6* as distinct from its verbal usage. As mentioned in §1, complementizers re-analyzed from verbs of 'saying' exist not only in Cantonese: the Taiwanese *kong* is also a complementizer re-analyzed from 'say' verbs (Hwang 1998). Simpson and Wu (2002) and Wu (2004) have worked on the syntax of Taiwanese *kong* and by means of phonological evidence <sup>14</sup>, they postulate that the Taiwanese *kong* is further grammaticalized into a sentence final particle carrying an emphatic assertion sense. Examples of *kong* as a complementizer followed by its complement IP clause (as in (40)) and *kong* as a sentence final particle (as in (41)) are shown as follows <sup>15</sup>:

(40) a. A•-hui siong•sin• kong • A•-sin m• lai A-hui believe KONG A-sin Neg come 'A-hui believes that A-sin is not coming.'

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<sup>&</sup>lt;sup>14</sup> Simpson and Wu (2002) and Wu (2004) make use of phonological evidence involving 'tone sandhi,' which is a well-known property of southern Min dialects such as Taiwanese. It is observed that a syllable may not undergo tone sandhi if it occurs sentence-finally. However, the sentence-final *kong* is found to have undergone tone sandhi which indicates, according to their analysis, that the complement IP clause of *kong* has actually moved up to the left of *kong*, leaving *kong* in the surface sentence-final position.

<sup>&</sup>lt;sup>15</sup> The symbol of a dot • following the word indicates the tone sandhi change.

- b.  $A \bullet -hui \quad liau \bullet chun \bullet \quad kong \bullet \quad A \bullet -sin \quad si \bullet \quad tai \bullet pak \bullet \quad lang$ A-hui thought **KONG** A-sin is Taipei person 'A-hui thought that A-sin is from Taipei.'

  (Wu 2004:94-95)
- (41) a.  $A \bullet -hui \quad siong \bullet \quad A \bullet -sin \quad m \bullet \quad lai \quad kong \bullet$ A-hui think A-sin Neg come KONG
  'A-hui thinks A-sin is not coming.'
  - b.  $A \bullet -hui \quad siong \bullet \quad kong \bullet \quad A \bullet -sin \quad m \bullet \quad lai \quad kong \bullet$ A-hui think KONG A-sin Neg come KONG
    'A-hui thought that A-sin is not coming.'
    (Simpson and Wu 2002:80)

Similarly, in a recent study on the Mandarin *shuo*, Wang et al (2003) provide a descriptive study of *shuo* and suggest that when '*shuo* is attached to the initial or final positions of an utterance,' it functions as a 'discourse marker,' expressing 'the emotional state of the speaker' (Wang et al 2003:482).

(42)

- a. (SK-II) shuo meitian zhi shui xiaoshi. νi ge (SK-II) say everyday only sleep Cl hour one xiangxin ma? ..ni believe SFP 'It is said that you only need to sleep for one hour (with SK-II), do you believe it?'
- b. wo yiwei ta ershiwu liu shuo<sup>16</sup>
  I thought he twenty-five -six say
  'I thought he was twenty-five or -six say.'

Although the Cantonese *waa6* does not appear in the sentence final position as the Taiwanese *kong* does, some cases with *waa2* in the sentence final position indicating an interrogative sense were found in the corpus data:

The author has confirmed the sentence-final usage of *shuo* in Mandarin with native Mandarin speakers. It has been reported that the usage likely originated from Taiwanese Mandarin speakers, but has been spread to mainland China via Internet and entertainment programmes. The usage can be occasionally found on Internet and newsgroups in mainland China. The same usage is reported in Chappell (to appear).

- (43)lei5 sik1 zo2 keoi5 gei2 noi6 waa2 (HKCAC) WAA2 2sg know Asp 3sg how long 'How long did you say that you have known him/her?'
- (44) zung6 jau5 di1 mat1je5 waa2 (HKCAC) else have Cl what WAA2 'What else did you say?'

This case of waa2 appears to occupy a similar sentence final position to the Taiwanese kong and it is phonologically similar to the complementizer waa6. However, unlike the Taiwanese kong, waa2 does not have the same pronunciation as waa6 and it does not signal any emphatic sense, but rather an interrogative sense. Phonologically, waa2 has a rising tone and waa6 is a low tone word. In Cantonese, there are many cases of tone 2 words deriving from low tone words, e.g., jan2 from jan4 'person.' It is possible that waa2 carries an interrogative function and serves as an echo question particle. Clearly, both the SFP waa2 and the complementizer  $waa6_3$  are derived from the lexical verb  $waa6_1$ . The question is whether the two pathways of grammaticalization are related (i.e., whether the SFP waa2 is historically derived from the complementizer  $waa6_3$ ). At this stage, to determine the grammatical status of waa2 simply by its reference to the case of the Taiwanese waa2 might be incautious.

Tang (1998b) has suggested that waa2 is an echo question particle occupying the COMP position and that waa2 cannot occur in subordinating clauses. It appears that waa2 occurring in matrix clauses and waa6 introducing subordinating clauses are in complementary distribution. Tang suggests that the omission of SFP's (including waa2) in embedded clauses can be accounted for by the possibility of having a head-initial complementizer waa6 in embedded clauses. This proposal requires further research to ensure its justification. Further research is also needed to investigate the relation of waa2, if any, to the complementizer waa6; and its typological relationship to the Taiwanese kong. Being diachronically related in the sense that both waa2 and waa63 appear to be derived from the verb waa61, the relation of waa6 and waa2 may serve as a good starting point for the investigation of the relation between head-initial complementizers introducing subordinating clauses and head-final complementizers occurring in matrix clauses.

# 6. SOME CONCLUDING REMARKS: FROM HEAD-INITIAL COMPLEMENTIZERS TO WORD ORDER TYPOLOGY IN CHINESE

This paper has ascertained the status of waa6 as a complementizer and introduced a new member to the Chinese COMP category. In the studies of Chinese complementizers, it has been proposed in the literature that relative clause markers, like de in Mandarin and ge3 in Cantonese are complementizers (Cheng 1986; Law 1990; Ning 1993; Xu 1997). Unlike waa63, which is a head-initial complementizer selecting propositional clauses as its complements, relative clause markers de or ge3 can be selected by nouns and introduce noun-complement clauses. The clauses selected can be modifying clauses, as in (45), and also complement clauses, as in (46).

(45)

a. de or ge3 selects a modifying clause:

[e<sub>i</sub> zuotian zai wuli yong bi xie xin] de ren<sub>i</sub> [ yesterday in room with pen write letter] DE man 'the man who wrote the letter with a pen in the room yesterday.'

b. [NP [ e<sub>i</sub> seng4jat6 wan6dung6 ge3] sai3lou6zai2<sub>i</sub>] all-day exercise children bei2gaau3 gin6hong1 compare healthy 'Children who always exercise are healthier.'

(46)

de or ge3 selects a complement clause:

a. [NP [ta zuotian zai wuli yong bi xie xin]
[NP [he yesterday in room with pen write letter]
de qingkuang] hen qiguai
DE situation] very strange

'The situation that he wrote a letter with his pen in the room yesterday was very strange'



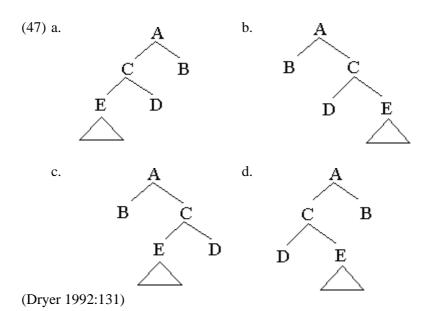
b. [[hok6saang1 faan2deoi3 haau6zoeng2 ge3] wut6dung6] student oppose principal activity jyut6 lai4 jyut6 koeng4lit6 more strong more come [NP [IP student oppose principal ge3] activity] more come more strong 'The activities that the students engage in to oppose the principal are getting stronger.'

At least in this usage in (46), de or ge3 appears to be a complementizer which is head-final and selected by a **noun**. If waa6 has been proven to be a head-initial complementizer, it seems to conflict with the previous assumptions in the literature that Chinese complementizers are head-final. One possibility could be that the conflict between head-initial and head-final complementizers is related to the conflict between head-initial VP's and head-final NP's. In Chinese, as NP's tend to be head-final and as de/ge3 are relativization markers which link a modifying/ complement phrase with the head noun, it is expected that de/ge3 are head-final. For waa6, however, as verbs are head-initial within the VP and as waa6 is reanalyzed from a 'say' verb, selecting an IP propositional complement, waa6 is expected to be head-initial.

This proposal is predictable in view of theories on word-order typology, such as the Branching Direction Theory (BDT) proposed by Dryer (1992) or the principle of Early Immediate Constituents (EIC)<sup>17</sup> developed by Hawkins (1994). Both theories suggest that regarding word-order in a language, consistent left-branching like (47a) or right-branching structures like (47b) are preferred over a mixture of left-and right-branching (47c-d).

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<sup>&</sup>lt;sup>17</sup> The 'Early Immediate Constitutes' (EIC) is defined in Hawkins (2001:5) as follows: 'The human parser prefers linear orders that minimize CRD's (by maximizing their IC-to-nonIC [or IC-to-word] ratios), in proportion to the minimization difference between competing orders.'



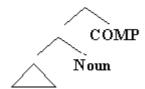
According to Hawkins (2002:101), for cognitive processing reason, languages prefer 'minimal domains.' Since the mixed word orders 'involve larger viewing windows (CRDs)<sup>18</sup>,' they are 'dispreferred cross-linguistically.'

Contrary to typological predictions, the structure of NP in Chinese is inconsistent with the structure of VP. However, the branching structures within NP and VP appear to be internally consistent. According to the BDT and the EIC, consistent left-branching or right-branching structures are preferred over a mixture of left- and right-branching. Thus, if Chinese NP tends to be head-final (i.e., a left-branching structure as in (47a)), the complementizer position is expected to precede the head noun, as shown in (48):

3

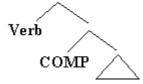
<sup>&</sup>lt;sup>18</sup> The definition for a 'Constituent Recognition Domain' (CRD) in Hawkins (2001:5) is as follows: 'The CRD for a phrasal mother node M consists of all non-terminal and terminal nodes dominated by M on the path from the terminal node that constructs the first IC on the left to the terminal node that constructs the last IC on the right.' For further discussion of the parsing approach proposed by Hawkins, see Hawkins (1990, 1994, 2001, 2002).

# (48) Left-branching structures in Chinese NP's:



Similarly, if Chinese VP's are head-initial (i.e., right-branching structure as in (47b)), the complementizer is expected to be head-initial (i.e., following the head verb), as shown in (49):

# (49) Right-branching structures in Chinese VP's:



The next question that naturally follows is whether typologically the co-existence of head-initial and head-final complementizers in a language is possible. Primus (2001) constructs a table showing the basic details associating with head-initial and head-final patterns:



Table 1 Basic details associating with head-initial and head-final patterns (Primus 2001:856)

Consistent head-initial order:	Consistent head-final order:	
verb – object (VO)	object – verb (OV)	
inflected auxiliary – main verb	main verb – inflected auxiliary	
(AuxV)	(VAux)	
preposition – noun (Pr)	noun – postposition (Po)	
noun – genitive/possessor (NG)	genitive/possessor – noun (GN)	
adjective – object of comparison	object of comparison – adjective	
article – noun	noun – article	
noun – adjective (NA)	adjective – noun (AN)	
noun – numeral (NNum)	numeral – noun (NumN)	
noun – demonstrative (NDem)	demonstrative – noun (DemN)	
noun – relative clause (NRel)	relative clause – noun (RelN)	
complementizer – clause (CompS)	clause – complementizer (SComp)	
verb – adverb (VAdv)	adverb – verb (AdvV)	
adjective – adverb (AAdv)	adverb – adjective (AdvA)	

The table shows the ideal distinction between head-initial and head-final languages and it is noted that many languages are found to be less consistent with the shown pattern. For example, English is observed to be a less consistent head-initial language as it has word order patterns such as adjective - noun (AN), genitive/ possessor - noun (GN), and adverb - adjective (AdvA); where Finnish is categorized as a less consistent head-final language as it is a language with SVO, AuxV, and NRel/RelN word order patterns. Regarding Chinese, it is similar to Finnish in that it also appears to be a less consistent head-final language with SVO, AuxV, article-noun and adjective-object word order patterns. According to Primus (2001, pp.856), 'relative and complement clauses and complementizers are bad patterners in head-final languages,' and which depart quite often from the cross-categorial harmony shown in Table 1. Regarding the typological word-order pattern of complementizers and relative/ complement clauses in head-final languages, Primus (2001) observes that:

"...head-initial languages will have almost only CompS order whereas head-final languages will have both CompS and SComp."
(Primus 2001:861)

Japanese is an example of a verb-final language with head-final complementizers; while Persian is a verb-final language with head-initial complementizers. However, Primus (2001) does not indicate whether the co-existence of CompS and SComp in the same language is possible. Siewierska (1998:791-810) lists a total number of 37 European languages that employ both NRel and RelN for NP's containing relative clauses. Examples of these languages include Basque, Georgian, Gothic, Latin, Finnish, and Hungarian. The possible co-existence of NRel and RelN structures in the same language may imply a possibility of having a language with both head-initial and head-final complementizers, but there is not a single language reported to have both head-initial and head-final complementizers. Still, it is believed that Chinese may be the only possible candidate for having both types of complementizers because it is the only language reported to be head-initial in VP's, but head-final in NP's for relative clauses/ noun-complement structures. Dryer (1992:82-87) examines the word-order properties in 625 languages from various language genera including Africa, Eurasia, Southeast Asia & Oceania, Australia-New Guinea, North America, and South America, and the only language found to have the order of verb—object (VO) and the order of relative clause—noun (RelN) is Chinese. Hawkins (1994) makes a similar observation:

'(a language) combining verb-initial VP's and prepositions with pronominal relatives, *are* exceedingly rare...Mandarin Chinese is the only language known to me that provides solid evidence for these structures...'

(Hawkins 1994:268)

Hence, it would not be a surprise if Chinese were the only language family found to have both head-initial and head-final complementizers. In such a case, de or ge3 may be the head-final complementizer selected by a noun to introduce the noun-complement. As relative/ complement clause—noun structures in Chinese are head-final (RelN), the complementizer position within the NP is preferably at the right edge of the complement clause (i.e., head-final). On the other hand, waa6 reanalyzed from a 'say' verb might be a head-initial complementizer selected by a verb to introduce the verb-complement. As Chinese has head-initial VP's, the complementizer position within the VP should be at the left edge of the complement clause (i.e., head-initial).

The proposal of having the head-initial complementizer *waa6* in the VP, as opposed to the head-final complementizer *de* or *ge3* in the NP, sheds light on the head-initial and head-final word order differences in Chinese VPs and NPs, providing further supporting evidence for theories in word order typology, such as the Branching Direction Theory (BDT) (Dryer 1992) and the principle of Early Immediate Constituents (EIC) (Hawkins 1994), which predict consistent left-branching or right-branching structures in languages.

This paper has successfully distinguished the complementizer status of waa63 from its verbal status by various synchronic tests, including argument selection, aspect marking, verb-doubling, coordination tests, and proposition negation in non-factive predicates. Further, even though in its earlier stage of grammaticalization, it has proposed that in some cases, waa63 is a head-initial complementizer in the VP introducing IP complements. This paper has not only introduced a new member to the Chinese COMP category, it has also shed light on other possible research areas. For example, this paper suggests a possible case of the grammaticalization pathway where sentence-final particles, like waa2, are derived from complementizers, like waa63. In light of waa63 being a head-initial Chinese complementizer, the paper relates to the special word order typology in Chinese and provides supportive evidence for theories in word order typology (e.g., BDT and EIC). It is hoped that the findings of this paper will be inspiring and stimulate further research in the studies of Chinese complementizers derived from 'say' verbs.

# APPENDIX I ABOUT THE CORPORA:

The Cantonese Radio Corpus (Francis, Yiu, Matthews, and Chu, in preparation)

This corpus contains samples of adult spoken Cantonese from four radio talk programs in Hong Kong, with a total of 43,283 lines of text transcribed and coded for syntactic analysis. The corpus constitutes part of a project entitled 'Lexical and contextual effects on the grammar of syntactic categories' which is funded by the Committee on Research and Conference Grants of the University of Hong Kong. The principal investigator on the project is Elaine J. Francis, the co-investigator is Stephen Matthews, and the research assistants are Winnie S.M. Yiu and Gene Y.F. Chu. The data for the corpus were collected by tape recording

several Hong Kong radio talk programs and selecting a sample of four programs which span a variety of genres, including celebrity interviews, political and economic discussions, and relationship issues. A pre-publication version of the CRC was used for this research, and a corrected version is due to be summitted to the online TalkBank database.

The HKCAC Corpus (Law, Fung, and Leung, 2002)
The development of the Hong Kong Cantonese adult language corpus (HKCAC) was made possible by a grant from the Research Grant Council of Hong Kong (# HKU 5190/98H) to Sam-Po Law, Suk-Yee Fung, and Man-Tak Leung. The database consists of orthographic and phonetic transcriptions of phone-in programs and forums broadcast on the radio. The recordings, totaling more than eight hours, were made during the period from November 1998 to February 2000. Sixty-nine speakers in addition to the program hosts were recorded. The corpus has approximately 170,000 characters.

#### APPENDIX II

#### LIST OF SENTENCES CONTAINING INSTANCES OF WAA6:

Note: This is not an exhaustive list of all instances encountered. For each predicate, only one or two instances are listed.

# 'say' predicates:

### gong2 'say'

tau4sin1 lei5dei6 **gong2 waa6** sing1gaa3bo1 ge3 jilliu4 nel just now WAA Singapore Poss medical SFP say 'Just now, you talked about the medical facilities in Singapore...'

(HKCAC)

ngo5 jat1lou6 doul mou5 tung4 keoi5 gong2 waa6 always all Neg with WAA 1sg 3sg say ngo5 tung4 faan1 keoi5 jat1cai4 accompany\_Asp 3sg together 'I never told her that we were back together.'

(CRC)



## king1 'discuss'

kam4jat6 ngo5 tung4 jat1go3 jan4 king1\_gan2 waa6
yesterday 1sg with one person discuss\_Asp WAA
zik1 ji4gaa1 ge3 ngan4hong4 zung6 seoi1 m4 seoi1jiu3 fan1hong4 ne1
that now Poss bank still need Neg need branch SFP
'Yesterday, I was talking to someone about whether banks still need
branches nowadays.'

(HKCAC)

#### tai4/tai4dou3/tai4kap6 'mention'

keoi5 jat1zou2 tai4\_gwo3 waa6 m4 jiu3 3sg early mention\_Asp say Neg want 'she'd always mention that she didn't want it.'

(A-kuan. 1988. *A JAN ri ji 'Jan's Diary'*, v.3. Hong Kong: Yau Wo, pp.77)

baaulzi3gaml jik6 doul tai4dou3 waa6 nel gam2 kei4sat6 then actually Bokharv also all mention WAA SFP gam1ci3 lai4 dou3 hin3faat3 so2 jung4heoi2 gong2 ji5 this time for say already reach constitution that allow gik6haan6 laa3 ge3 Poss limit **SFP** 

'Actually, Mr Justice Bokhary also mentioned that for this incident, it had already reached the limit of the constitution.'

(HKCAC)

janlwai6 colcol tai4kap6 waa6 zel
because in the beginning mention WAA SFP
batljyu4 paak3tol hou2 m4 hou2 nel gam2
why not dating good Neg good SFP SFP
'In the beginning, I mentioned, "how about dating? Is that okay?"

(CRC)

#### tai4ceot1 'suggest'

maa4maa1 zik6zeng4 tai4ceot1 waa6 lei4fan1 lo1 Mother actually suggest WAA divorce SFP 'Mother actually suggested a divorce.'

#### man6 'ask'

ngo5 zau6 man6 keoi5 waa6 lei5 baai2 soeng5 heoi3 zel 1sg then 3sg WAA 2sg put ask up go SFP go2zan6si4 mou5 waa6 seon6 jau5 faan1 that time have Neg say arrange again 'I asked him/her whether (s)he had re-arranged them after (s)he put them back.'

(HKCAC)

#### daap3 'answer'

daan6hai6 nel zau6 daap3\_zo2 ngo5 ngo5 waa6 but SFP then Answer\_Asp 1sg 1sg WAA waa6 jan1wai6 jan1wai6 ngo5 m4 ngo5 ngo5 m4 ngo5 mou5 WAA because because 1sg Neg 1sg Neg 1sg Neg 'But, (somebody) answered me, "Because...I didn't...I...I didn't...I haven't"...'

(HKCAC)

ngo5 daap3 waa6 jiu3 bou2ci4 ceng1sing2 1sg answer WAA need keep awake 'I answered that I had to be calm.'

(A-kuan. 1998. *Xiao nan ren zhou ji (3) 'The diary of a small man (3)'*. Hong Kong: Crown Publishing, pp.45)

keoi5 daap3 waa6 jau5 (s)he answer WAA yes '(S)he answered, "Yes!"

(A-kuan. 1998. *Xiao nan ren zhou ji (3) 'The diary of a small man (3)'* Hong Kong: Crown Publishing, pp. 99)

## ak1 'lie'

ngo5 ak1 keoi5 waa6 tin1man4toi4 bou3gou3 3sg WAA 1sg observatory lie report hei3wan1 wui5 dit3 dou3 sap6 dou6 temperature will drop reach ten degree

'I lied to him, saying that the weather report had said that the temperature would drop to 10 degrees.'

(A-kuan. 1988. A JAN ri ji 'Jan's Diary', v.3. Hong Kong: Yau Wo, pp.77)



ngo5 ak1 keoi5 waa6 aa3 Ann faan1\_zo2 heong1haa2 wu1lou5muk6cai4 1sg lie 3sg WAA Ah Ann back\_Asp hometown Urumqi 'I lied to him/her that Ah-Ann had gone back to her hometown Urunqi.' (A-kuan. 1996. Xiao nan ren zhou ji (1) 'The diary of a small man (1)' Hong Kong: Crown Publishing, pp. 38)

## sing4jing6 'admit'

keoi5 jat1zik1 can1hau2 sing4jing6 \_gwo3 lo1, doul mou5 3sg all-along too Neg in-person admit Asp SFP go2go3 leoi5pang4jau5 faan1 waa6 keoi5 WAA 3sg that girlfriend back 'He never actually admitted that he really was going back to his ex-girlfriend.'

(CRC)

## giu3zou6 'called as'

leildou6 dou3 m4 hai6 giu3zou6 waa6 gam3 hung2bou3 here all Neg be call as WAA that scary 'This place cannot be considered all that scary.'

(HKCAC)

## gaai2sik1 'explain'

keoi5 gaai2sik1 waa6 zi6gei2 sam1ceng4 m4 hou2 3sg explain WAA oneself feeling Neg good '(S)he explained that (s)he was not in a good mood.'

(A-kuan. 1988. *A JAN ri ji 'Jan's Diary'*, v.3. Hong Kong: Yau Wo, pp.107)

"so2ji3 jat6bun2zai2 Diana gaai2sik1 waa6, zung3 di1 grow Poss Diana **explain** WAA, so Japanese ze1." ping4gwo2 pou4tai4zi2 gam3 daai6 lap1 apple grape big Cl **SFP** so 'Diana explained, "That's why the apples and grapes grown by the

Diana explained, "That's why the apples and grapes grown by the Japanese are so big."

(A-kuan. 1996. *Xiao nan ren zhou ji 'The diary of a small man'* Hong Kong: Crown Publishing, pp. 50)

#### jyun3 'grumble'

ngo5 min6cin4 jyun3 lou5dau6 waa6 keoi5 gan1zyu6 hai2 grumble father 1sg before WAA 3sg then at keoi5 jat1zou2 tai4 gwo3 m4 waa6 jiu3 3sg early mention Asp say Neg want

'Then, she grumbled about my father in front of me, saying that she'd already mentioned that she didn't want it.'

(A-kuan. 1988. *A JAN ri ji 'Jan's Diary'*, v.3. Hong Kong: Yau Wo, pp.77)

### teoil 'refuse'

bun2loi4 soeng2 teoi1 keoi5 waa6 m4 heoi3...
originally think refuse 3sg WAA Neg go
'At first, I wanted to refuse him/her saying that I would not go...'

(A-kuan. 1996. *Xiao nan ren zhou ji 'The diary of a small man'* Hong Kong: Crown Publishing, pp. 98)

## san3 'grouch'

biu2ze2 gu1maa1 maa1mi4 san3 tung4 waa6 ji6 auntie with mummy grouch WAAtwo female cousin jan1wai6 ngoi6gwok3 git3fan1 fong3hei3 heoi3 duk6syu1 because give up marry overseas study go 'My auntie grouched to my mother that my second elder female cousin had given up a chance to study overseas for the sake of marriage.'

(A-kuan. 1988. A JAN ri ji 'Jan's Diary', v.3. Hong Kong: Yau Wo,

pp.126)

"jyu4gwo2 ngo5 lou5gung1 seng4jat6 san3 waa6, "if always grouch WAA. husband 1sg ngo5 jat6bun2 hei2 heoi3 zing2 zing2 jat1 one allow Japan do 1sg go do jatljoeng6 ho2ji3 gam3 jau5 tai2tau4!" same can SO have stunning

'(She) always grouched, "If my husband let me go to Japan to do that just once, I could also be that stunning."

(A- kuan. 1988. *A JAN ri ji 'Jan's Diary'*, v.2. Hong Kong: Yau Wo, pp.38)



#### tam3 'comfort'

ngo5 zung6 tam3 keoi5 waa6 lai4\_gan2 lei1go3 lai5baai3
1sg even comfort 3sg WAA come\_Asp this week
wan2 maan3 tung4 keoi5 jat1cai4 heoi3 gaai1
find night with 3sg together go street

'I even comforted him, saying that I would go out with him one night sometime this week.'

(A-kuan. 1988. *A JAN ri ji 'Jan's Diary'*, v.2. Hong Kong: Yau Wo, pp.152)

## giu3 'shout'

ngo5 hoil\_zoek6 dang1 teng1\_dou2 ji6 gaalzel giu3 waa6, 1sg turn on\_Asp light listen\_Asp two sister shout WAA "m4 hou2 hoil dak1 m4 dak1?"

"Neg good turn on can Neg can?"

'I turned on the lights and heard my second elder sister shout, "Could you not turn on the lights?""

(A-kuan. 1988. *A JAN ri ji 'Jan's Diary'*, v.2. Hong Kong: Yau Wo, pp.90)

keoi5 gin3\_dou2 ngo5 gin3\_dou2 keoi5 zung6 daai6 seng1 giu3 waa6, 3sg see\_Asp 1sg see\_Asp 3sg even big voice shout WAA "aa3fun1, lei5 mai5 soeng5 lai4 aa3..."

"Ah-Fun 2sg Neg up come SFP..."

'When (s)he saw me see him/her, (s)he actually shouted, "Ah-fun, don't come forward..."

(A-kuan. 1998. *Xiao nan ren zhou ji (3) 'The diary of a small man (3)'* Hong Kong: Crown Publishing, pp. 42)

## laai6 'blame'

jin4hau6 zau6 laai6 dil gei3ze2 waa6 hou2 bou3dou6 nel after then blame Cl reporter WAA very report SFP 'And then you put the blame on the reporters.'

(CRC)

# 'cognition and perception' predicates: gok3dak1 'think/ believe'

keoi5 seng4jat6 gok3dak1 waa6 3sg always think WAA

lei1go3 neoi5jai2 hou2 min6sin6 hou2 min6sin6 this girl very familiar very familiar '(S)he always thought that this girl looked very familiar.'

#### soeng2 'think/ plan'

kei4sat6 doul soeng2 waa6 actually all think WAA

aal batljyu4 heoi3 haa5 gaail gam2 SFP why not go once street so

'Actually, I have thought that, say, if we might go out some time.'

(HKCAC)

ngo5 soeng2 waa6 hoeng2 lau4haa6 zit6 dik1si2,
1sg think WAA at downstairs get taxi,

daan6hai6 pin1pin1 mou5 ce1 but unfortunately Neg car

'I wanted to get a taxi downstairs, but unfortunately there were none about'

(A-kuan. 1996. *Xiao nan ren zhou ji (1) 'The diary of a small man (1)'* Hong Kong: Crown Publishing, pp. 99)

#### heilmong6 'hope'

zau6 heilmong4 waa6 bei2 ngo5dei6 tengl then **hope** WAA to 1pl listen jau5 zou6 si6 ne1 hai6 jiu3 kwai1leot6 gaa3 do matter **SFP** be want have rhythm 'Then, (somebody) wants to tell us that we should regulate our work.' (CRC)

#### lam2 'think/ plan'

ngo5 jau5 lam2 \_gwo3 waa6 lei5 cou5
1sg have think\_Asp WAA 2sg save up
bat1jyu4 baai2 hai2 ngo5 dou6 laa1 gam2 ngo5 keep\_zyu6...
why not put at 1sg place SFP so 1sg keep\_Asp...
'I thought if you save up, why don't we put the money at my place and I will keep it.'

(CRC)

ngo5 m4 wui5 zoi3 lam2 waa6 1sg Neg will again think WAA

tung4 paak3\_zo2 loeng5 go3 lai5baai3 ge3 laam4zai2 jat1cai4 lo1 with date\_Asp two Cl week Poss boy together SFP 'I don't think that I will be together with the boy who's been dating me for two weeks.'

## tai2 'see'

ji4gaallei5tai2\_haa3waa6si5min6soeng6 gam3siultiu4now2sgsee\_AspWAAmarketupsodownturntung4maai4gam3doljan4zapllaplandsomanypeople close business

'Now you see that the economy is in a downturn and many businesses are closing down.'

(HKCAC)

## 'informative' predicates

## tung1zi1 'inform'

daan6hai6 go2go3course le1zau6 cat1jyut6butthatcourse SFPthen Julysin1zi3tung1zi1 waa6sau1\_zo2 ngo5onlyinformWAA take\_Asp 1sg

'But the course only informed me in July that I was approved for admission.'

(HKCAC)

## se2 'write'

keoi5 se2\_zyu6 waa6 hou2 zung1ji3 ngo5 lo1,
3sg write\_Asp WAA very love 1sg SFP,
peng4si4 keoi5 mou5 gong2 gaa3
usually 3sg Neg say SFP

'He wrote that he loved me very much. He didn't say so.'

(HKCAC)

## Other predicates

# hai6 'be'

hai6 jau5 po2 do1 ge3 hai6 order le1, ze1 maai5pun2 laa1haa2, be have quite many Poss be order SFP, that's buyer SFP, hai6 waa6 buy at the market.

**be WAA** buy at the market.

'There are quite a lot of orders, that's buyers, who are buying at the market.'

zau6 hai6 ngo5 zeoi3 daam1jau1 ge3 waa6 then **be** WAA 1sg most worried Poss kei4sat6 aam1 sin1zi3 daai6gaa1 zik1 hai2 actually just then 1pl just at lei1go3 tou2leon6 leoi5min6 ne1... this discussion inside SFP...

'What I most worried about is that actually in the problem we were discussing...'

(HKCAC)

ngo5 ge3 un...understanding zik1 hai6 waa6 1sg Poss un...understanding that be WAA hai2 gam3 do1 nin4 ji5lai4 in so many year along gan1bun2 keoi5dei6 dou1 jat1zik6 jau5 lyun4lok6 lo1 all long time have contact SFP 'My understanding is that in these years, they actually have been in touch.'

(HKCAC)

zik1si2 baau1zi3gam1 go3 gong2faat3 le1 zau6 hai6 waa6 aa3 even if Bokhary Cl interpretation SFP then be WAA SFP dou3ci2wai4zi2 laa1 this is the end SFP

'Even if Bokhary's interpretation is that that should be the end...'

(HKCAC)

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## 楊家慧 香港大學中文系

補語連詞(Complementizer)泛指連接子句補述語之詞(見英語中的 that),據類型語言學前人研究,表述說話之動詞於多種語言中均有語法化成補語連詞之現象。本文以橫向斷代方式分析廣東話「話」字,提出前述現象亦見於廣東話。「話」常見於各種表述言語或思想的謂語之後,一向被認為連動句式中的第二動詞,然而,本文以為「話」不一定用作動詞,於不同情況下,「話」之語意各異,其次語類制約亦有所不同,譬如:話」,意「說」[\_\_(PP) CP]/[\_\_PP NP];話  $_2$ , 意「責怪/指摘」[\_\_NP CP];而話  $_3$ , 則為補語連詞,用作連接子句補述語[\_\_IP]。根據其表現之形式句法特徵,如:時體結構、論元選擇關係,本文論證了話  $_3$ 於作補語連詞時,形式句法上有別於說話動詞話  $_1$ 與及物動詞話  $_2$ 。

