

ON THE STATUS OF THE COMPLEMENTIZER WAA6 IN
CANTONESE*

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*¹. *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*₁ meaning ‘say’ [___ (PP) CP] or [___ PP NP], the transitive verb *waa6*₂ meaning ‘blame/

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¹ As is common practice for Mandarin and Taiwanese romanization, the paper use the Scheme for the Chinese Phonetic Alphabet (*Hanyu Pinyin Fang’an*) and Church Romanization, which was devised by Presbyterian missionaries in the 19th 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).

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condemn' [__ NP CP], and the complementizer *waa6*₃ selecting a clause [__ IP²]. 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.³

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

² The paper assumes propositional sentences as maximal projections IP projected by the INFL. See Chomsky (1981).

³ 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 one of the paths of re-analysis by which complementizers develop is from *verba dicendi*⁴, 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 *bé* is re-analyzed from the verb *be*, meaning ‘say’. In (1a), the ‘say’ verb *be* takes a propositional complement. Yet, the ‘say’ verb *gblɔ* only takes an NP complement, as in (1b). If *gblɔ* takes a propositional complement, the complement clause must be introduced by a complementizer *bé*, as in (1c) and (1d).

(1)

- | | |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| a. me-be mewɔe
I-say I-do-it
‘I said, “I did it”.’ or
‘I said that I did it.’ | b. me-gblɔ-e
I-say-it
‘I said it.’ |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------|

⁴ 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’.

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

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).⁵

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 *waab* 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."'

⁵ 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 sionsin 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*₁ 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*₂ meaning 'blame/ condemn' which subcategorizes an NP and an optional CP [___ NP (CP)], and 3) the

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complementizer *waa6₃* as a clause introducer selecting a propositional sentence (___ IP). In addition, this paper argues that *waa6₃* lacks the syntactic characteristics typical of verbs, providing further evidence that *waa6₃* 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:

<i>waa6₁</i> 'say':	Intransitive Verb: ___ (PP) CP
	Transitive Verb: ___ PP NP
<i>waa6₂</i> 'blame/condemn':	Transitive Verb: ___ NP (CP)
<i>waa6₃</i> :	Complementizer: ___ IP

Having ascertained the complementizer status of *waa6₃*, 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 *tã* 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_i* 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 dou1 m4 heoi3 lak3*]
 3sg WAA₁ [_{CP} forever all Neg go Part]
 ‘(S)he said that (s)he would never go again.’
- b. *keoi5 waa6 zo2* [_{CP} *ji5hau6 dou1 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 WAA₁ [_{PP} to 1sg listen],
 [_{CP/NP} *loeng5ci3 lol*]
 [_{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]
 [_{CP} *jau5 mel saang1ji3 ho2ji3 zou6*]
 [_{CP} have what business can do]
 ‘Then tell us what kind of business we can do.’
- f. *ngo5 gok3dak3 ngo5 jing1goi* (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_i* 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_i* may also be used as a cognitive verb, meaning ‘think.’

- (6) *gam2 lei5 waa6* [_{CP} *hai2 mai6 hou2 fung3ci3 aa1?*] (HKCAC)
 then 2sg WAA₁ [_{CP} is Neg very ironic Part]
 ‘So, don’t you think it’s ironic?’

Apart from the ‘say’ verb (*waa6₁*), there is another verb *waa6₂* meaning ‘blame’, ‘condemn’ or ‘criticize.’ The subcategorization of *waa6₂* is different from *waa6₁* (____ CP). It selects an NP, the patient argument, and a CP, (____ NP CP), as (7a) and (7b). The passive construction of *waa6₂* (7c) is also common. It should be noted that for the *waa6₂* 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 *waa6₃*. A detailed analysis will be provided in later sections⁶.

- (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* [_{NP} *lei5*] (CRC)
 first year then be WAA₂ [_{NP} 2sg]
 [_{CP} *ngo5 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 sik1 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 WAA₂ [_{NP} 3sg] WAA [_{CP} Neg know English]
 ‘People condemn him/her for not knowing English.’

⁶ 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.

<u>‘say’ predicates:</u>		<u>cognition and perception predicates:</u>	
<i>gong2</i> ‘say’	<i>king1</i> ‘discuss’	<i>gok3dak1</i> ‘think’ /	<i>soeng2</i> ‘think’ /
<i>tai4</i> / <i>tai4dou3</i> /	<i>tai4ceot1</i>	‘believe’	‘plan’
<i>tai4kap6</i>	‘suggest’	<i>heilmong6</i> ‘hope’	<i>lam2</i> ‘think’ /
‘mention’	<i>man6</i> ‘ask’	<i>tai2</i> ‘see’	‘plan’
<i>daap3</i> ‘answer’	<i>sing4jing6</i>		
<i>giu3zou6</i>	‘admit’		
‘be called’	<i>ak1</i> ‘cheat’		
<i>jyun3</i> ‘grumble’	<i>gaai2sik1</i>		
<i>san3</i> ‘grouch’	‘explain’		
<i>giu3</i> ‘shout’	<i>teoil</i> ‘refuse’		
<i>laai6</i> ‘blame’	<i>tam3</i> ‘comfort’		
<u>‘informative’ predicates:</u>		<u>Other predicates:</u>	
<i>tung1zi1</i>	<i>se2</i> ‘write’	<i>hai6</i> ‘be’ ⁷	
‘inform’			

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

⁷ 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 dou1 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 English⁸, 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*

⁸ 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.⁹ 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_i* can select an optional PP as its goal argument (10), such as *gong2* (11). However, in the complement-introducing

⁹ 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 *waa6₁* in a SVC with *gong2* and that the verbal behaviour of *waa6₁* which takes a PP argument has been lost. It is therefore likely that *waa6* in (12) is the complementizer *waa6₃*.

- (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 *waa6₁*, 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, *waa6₁* 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_gaal m4 gaal 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 king1_gwo3/zo2 [IP_gaal m4 gaal jan4gung1]*
 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.’
- (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_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 gaal 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. *king1 zau6 heoi3 king1_zo2 gaal jan4gung1 ge2*
 discuss then go discuss_Asp add salary Part
 (*bat1gwo3 lou5sai3 teng1 m4 teng1 zau6 m4 zil 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:
waa6 keoi5 zau6 waa6_gwo3 waa6 [IP m4 dak1haan4]
 WAA 3sg then WAA_Asp WAA [IP Neg free]
 (*daan6 hau6mei1 jau6 lei4 zo2*)
 (but eventually but come_Asp)
 ‘(S)he really said that (s)he was not free (but she came eventually).’

Complementizer:

- 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)
 ‘(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

¹⁰ 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 sailtit3* [*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 sailtit3 faan1*
 {sit/back} 1sg then sit_Asp West Rail **back**
 (*heoi3 zau6 mei6 si3_gwo3*)
 (go then Neg try_Asp)
 ‘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 [CP*waa6* *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 [CP*waa6* *keoi5 m4 heoi3*,] *waak6ze2*
 1sg 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 *waa6₂* ‘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 *waa6₁*, *waa6₂*, or *waa6₃*:

- (25) a. With *waa6₂* ‘blame/ condemn’:
ji4gaal dil jan4 seng4jat6
 now Cl people always
waa6₂ hoeng1gong2 ge3 daai6hok6saang1,
 condemn Hong Kong Poss university students,

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[_{CP}*waa6* *jing1man2* *m4* *hou2*,]
[_{CP}**WAA** 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:

hoeng1gong2 *ge3* *daai6hok6saang1*
Hong Kong Poss university students
seng4jat6 *bei2* *jan4* *waa6*
always Pass people condemn
[_{CP}*waa6* *jing1man2* *m4* *hou2*,]
[_{CP}**WAA** English Neg good,]
[_{CP}(?**waa6*) *zung1man2* *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 *waa6*₂ 'blame/ condemn':

ji4gaal *di1* *jan4* *seng4jat6*
now Cl people always
*waa6*₂ *hoeng1gong2* *ge3* *daai6hok6saang1*,
condemn Hong Kong Poss university students,
[_{CP}*waa6* *jing1man2* *m4* *hou2*,]
[_{CP}**WAA** English Neg good,]
tung4maai4 [_{CP}(*waa6*) *zung1man2* *m4* *hou2*]
and [_{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:

hoeng1gong2 ge3 daai6hok6saang1
 Hong Kong Poss university students
seng4jat6 bei2 jan4 waa62
 always Pass people condemn
 [CP*waa6* *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 as¹¹:

¹¹ It is suggested that the longer the intervening elements between the two verbs, the

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- (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 representations¹². 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)

¹² For discussion of the 'Obligatory Contour Principle' (OCP), see McCarthy (1981, 1986).

With pause:

- (31) *keoi5 waa6 <p> waa6 [IP m4 dak1haan4 lai4]*
 3sg say <p> 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 *tã* and Taiwanese *kong*:

- (32) a. *i tã tã “luɿ tsio sē tso m tui”*
 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 ũ 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.

Immediate (surface) adjacency without intervening elements:

- (33) *keoi5_i bei2 jan4 waa6 t_i [CP waa6 m4 sik1 jing1man2]*
 3sg_i 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* [PP *bei2 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,’ *wai4ji4* ‘suspect,’ and *lam2zyu6* ‘think,’ *waa6*₃ 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*₁ ‘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],
dim2zil 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 ??)

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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 *tã* in Chaoshou:

- (39) a. Initial Stage (I): *tã* as a lexical verb
 i *siã* *tã*
 3sg first say
 ‘He will say (it) first.’

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

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

c. Switch context (III): *tã* as a complementizer following cognition/perception verbs

*ua siõ *(tã) mazek tio? tsiõpaŋ*
 1sg think *(say) tomorrow should go.to.work
 'I thought I had to go to work tomorrow.'

d. Conventionalization (IV): *tã* as a complementizer following epistemic modals

i upiaŋ tã sã me sã zek meŋ ã
 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 *tã*'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 *tã* 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-verbs¹³ 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

¹³ 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 evidence¹⁴, 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 follows¹⁵:

- (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.’

¹⁴ 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.

¹⁵ The symbol of a dot • following the word indicates the tone sandhi change.

- b. *A•-hui liau•chun•kong• A•-sin si• tai•pak• 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•-hui siong• A•-sin m• lai kong•*
 A-hui think A-sin Neg come **KONG**
 ‘A-hui thinks A-sin is not coming.’
- b. *A•-hui siong• kong• A•-sin m• lai kong•*
 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 yi ge xiaoshi,*
 (SK-II) **say** everyday only sleep one Cl hour
..ni xiangxin ma?
 you 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*¹⁶
 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:

¹⁶ 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)
 2sg know Asp 3sg how long **WAA2**
 ‘How long did you say that you have known him/her?’
- (44) *zung6 jau5 di1 mat1je5 waa2* (HKCAC)
 else have CI 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 *kong* 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 *waa6*₃ appear to be derived from the verb *waa6*₁, 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 *waa6*₃, 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_i* *zuotian* *zai wuli yong bi xie xin*] *de* *ren_i*
[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_i* *seng4jat6 wan6dung6 ge3*] *sai3lou6zai2_i*]
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'

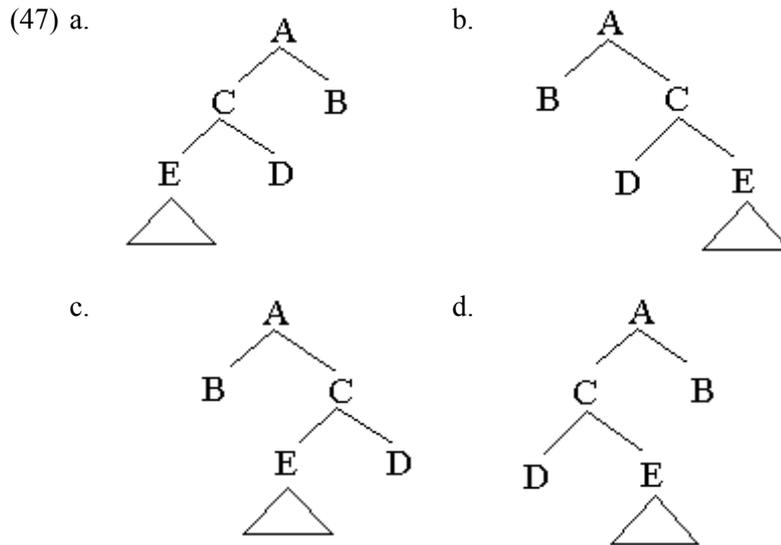
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- b. [[*hok6saang1 faan2deoi3 haau6zoeng2 ge3*] *wut6dung6*]
student oppose principal activity
jyut6 *lai4* *jyut6* *koeng4lit6*
more come more strong
[_{NP} [_{IP} student oppose principal *ge3*] activity] more come more strong
'The activities that 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)¹⁷ 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).

¹⁷ The 'Early Immediate Constituents' (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.'



(Dryer 1992:131)

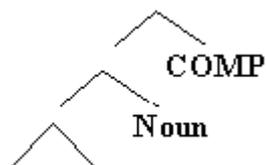
According to Hawkins (2002:101), for cognitive processing reason, languages prefer ‘minimal domains.’ Since the mixed word orders ‘involve larger viewing windows (CRDs)¹⁸,’ they are ‘dispreferred cross-linguistically.’

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):

¹⁸ 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).

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(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 (AuxV)	main verb – inflected auxiliary (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 (AAAdv)	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-categorical 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 *waa6*₃ 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, *waa6*₃ 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 *waa6*₃. In light of *waa6*₃ 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

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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 submitted 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 sing1gaa3bol ge3 jilliu4 nel
just now 2pl say WAA Singapore Poss medical SFP
'Just now, you talked about the medical facilities in Singapore...'

(HKCAC)

ngo5 jat1lou6 dou1 mou5 tung4 keoi5 gong2 waa6
1sg always all Neg with 3sg say WAA

ngo5 tung4_faani keoi5 jat1cai4
1sg 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 ji4gaal ge3 ngan4hong4 zung6 seoi1 m4 seoi1jiu3 fan1hong4 nel
 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)

gam2 kei4sat6 baaulzi3gam1 jik6 dou1 tai4dou3 waa6 nel
 then actually Bokhary also all **mention WAA SFP**
gam1ci3 lai4 gong2ji5 dou3 hin3faat3 so2 jung4heoi2
 this time for say already reach constitution that allow
ge3 gik6haan6 laa3
 Poss limit SFP

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

(HKCAC)

jan1wai6 colcol tai4kap6 waa6 zel
 because in the beginning **mention WAA SFP**
bat1jyu4 paak3to1 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*’

maa4maal zik6zeng4 tai4ceot1 waa6 lei4fan1 lol
 Mother actually **suggest WAA** divorce SFP
 ‘Mother actually suggested a divorce.’

(HKCAC)

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man6 'ask'

ngo5 zau6 man6 keoi5 waa6 lei5 baai2 soeng5 heoi3 zel
1sg then ask 3sg WAA 2sg put up go SFP
go2zan6si4 jau5 mou5 waa6 seon6 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 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
1sg lie 3sg WAA observatory 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 Urumqi.’
 (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 dou1 mou5 can1hau2 sing4jing6_gwo3 lo1,
 3sg all-along too Neg in-person admit_Asp SFP
waa6 keoi5 go2go3 leoi5pang4jau5 faan1
 WAA 3sg that girlfriend back
 ‘He never actually admitted that he really was going back to his
 ex-girlfriend.’

(CRC)

giu3zou6 ‘called as’

lei1dou6 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)

Diana *gaai2sik1 waa6,* “*so2ji3 jat6bun2zai2 zung3 di1*
 Diana explain WAA, so Japanese grow Poss
ping4gwo2 pou4tai4zi2 gam3 daai6 lap1 zel.”
 apple grape so big Cl SFP

‘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)

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jyun3 'grumble'

keoi5 gan1zyu6 hai2 ngo5 min6cin4 **jyun3** lou5dau6 **waa6**
3sg then at 1sg before **grumble** father **WAA**
keoi5 jat1zou2 tai4_gwo3 waa6 m4 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)

teoi1 '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'

gulmaal tung4 maalmi4 **san3** **waa6** ji6 biu2ze2
auntie with mummy **grouch** **WAA** two female cousin
jan1wai6 git3fan1 fong3hei3 heoi3 ngoi6gwok3 duk6syul
because marry give up go overseas study
'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)

seng4jat6 **san3** **waa6**, "jyu4gwo2 ngo5 lou5gung1
always **grouch** **WAA**, "if 1sg husband
bei2 ngo5 heoi3 jat6bun2 zing2 jat1 zing2
allow 1sg go Japan do one do
jat1joeng6 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 hoi1_zoek6 dang1 teng1_dou2 ji6 gaalzel giu3 waa6,
 1sg turn on_Asp light listen_Asp two sister **shout WAA**
"m4 hou2 hoi1 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 di1 gei3ze2 waa6 hou2 bou3dou6 ne1
 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 nei5jai2 hou2 min6sin6 hou2 min6sin6
 this girl very familiar very familiar
 '(S)he always thought that this girl looked very familiar.'

(HKCAC)

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soeng2 'think/plan'

kei4sat6 dou1 soeng2 waa6
actually all think WAA
aal bat1jyu4 heoi3 haa5 gaai1 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 teng1
then hope WAA to 1pl listen
zou6 si6 nel hai6 jiu3 jau5 kwai1leot6 gaa3
do matter SFP be want have rhythm SFP
'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.'

(HKCAC)

tai2 ‘see’

ji4gaal lei5 tai2_haa3 waa6 si5min6 soeng6 gam3 siu1tiu4
 now 2sg see_Asp WAA market up so downturn
tung4maai4 gam3 dol jan4 zap1lap1
 and so many people close business
 ‘Now you see that the economy is in a downturn and many businesses
 are closing down.’

(HKCAC)

‘informative’ predicates

tung1zi1 ‘inform’

daan6hai6 go2go3 course le1 zau6 cat1jyut6
 but that course SFP then July
sin1zi3 tung1zi1 waa6 saul zo2 ngo5
 only inform WAA 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 lol,
 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 dol 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.’

(HKCAC)

Ka-wai Yeung

ngo5 zeoi3 daam1jau1 ge3 zau6 hai6 waa6
1sg most worried Poss then **be** **WAA**
kei4sat6 aam1 sin1zi3 daai6gaal zik1 hai2
actually just then 1pl just at
lei1go3 tou2leon6 leoi5min6 nel...
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 dol nin4 ji5lai4
in so many year along
gan1bun2 keoi5dei6 dou1 jat1zik6 jau5 lyun4lok6 lol
in fact 3pl all long time have contact SFP
'My understanding is that in these years, they actually have been in
touch.'

(HKCAC)

zik1si2 baaulzi3gam1 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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Ka-Wai Yeung
Department of Chinese
The University of Hong Kong
Pokfulam Road, HKSAR
kkwyeeung@graduate.hku.hk

Ka-wai Yeung

論廣東話之補語連詞：「話」

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₁，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。