In-Situ and Ex-Situ *Wh*-Questions in Colloquial Singapore English and Substratal Influences from Singapore Malay[∗]

Keywords: Colloquial Singapore English, *wh*-question, movement, *wh*-in-situ, operator-variable structure, Singapore Malay, Substratist Explanation

Abstract: This paper provides a formal analysis of the syntax of *wh*-questions in Colloquial Singapore English and identifies the language that must have played a substantial role in the genesis and development of *wh*-questions in this variety. This variety has three options for *wh*-questions: full movement into the operator position, partial movement into an intermediate position and in-situ. Contrary to the dominant view that the primary substrate languages of CSE are (southern) Chinese languages (i.e. Mandarin, Cantonese, and Hokkien), these languages have not exerted any substratist influence on the syntax of *wh*-questions in CSE. Instead, the range of options for *wh*-questions attested arises from intense language contact between Singapore Malay and this variety. Specifically, following Cole and Hermon's (1998) analysis of the typology of *wh*-questions, I suggest that the substratist transfer took the form of a lexico-syntactic parameterization: an operator is either combined in a single word with a *wh*-variable or base-generated directly in the scopal operator position, unselectively binding the *wh*-variable. This analysis correctly predicts a wide range of other syntactic and semantic parallelisms between *wh*-questions in Singapore Malay and CSE. This result suggests that Singapore Malay is the primary substratal language of CSE with respect to *wh*-questions.

1.   Introduction

The purpose of this paper is to provide a comprehensive description and analysis of *wh*-questions in Colloquial Singapore English (henceforth, CSE) within the framework of the Minimalist Program (Chomsky 1995) and to identify the language(s) that played a primary role in the genesis of the syntax of *wh*-questions in this English-lexified variety. I first observe that CSE has a full range of options for forming *wh*-questions: full movement of a *wh*-phrase into the highest,

scopal [Spec, CP], partial movement into the embedded, non-scopal [Spec, CP] and *wh*-in-situ. Given the systemic substrate influences on the grammar of CSE from southern Chinese languages (specifically, Hokkien, Cantonese, and Mandarin) documented in the literature, it becomes important to address the question how it is that CSE developed the full and partial movement strategies for *wh*-question formation because these languages do not possess the full or partial movement options. I propose that these strategies are the result of the intimate language contact between Singapore Malay and CSE. Especially important in this regard is Cole and Hermon's (1998) observation that Singapore Malay exhibits the exactly same set of strategies for *wh*-questions. I provide new evidence that the syntactic and semantic properties of *wh*-questions in CSE exactly mirror those of Singapore Malay. Theoretically, following Cole and Hermon's analysis, I argue that the apparent diversity of *wh*-question formation strategies in CSE is due to the lexical choice parameter: a *wh*-phrase is inserted in the numeration as an operator-variable structure in it or a null operator is base-generated directly in the scopal [Spec, CP], unselectively binding an in-situ variable within the TP. The partial *wh*-movement configuration arises when a *wh*-phrase base-generated as the operator-variable undergoes movement into an intermediate specifier of CP, followed by the covert movement of the operator alone to the matrix specifier of CP to replace the *wh*-expletive in the position. The data and analysis presented here provides evidence for the hypothesis that Singapore Malay must have been a primary substratal language of CSE with respect to *wh*-question formation.

The present paper is organized as follows. In the following section, after providing a socio-historical background on the genesis and development of the grammar of CSE, I provide data to show that CSE has a full range of options for *wh*-questions; full movement, partial movement and *wh*-in-situ. I further show that the full movement and partial movement options are truly innovative in CSE given that the Chinese languages (Hokkien, Cantonese and Mandarin), which have been regarded as primary substrate languages of CSE in the literature, are uniformly *wh*-in-situ languages and do not posses either full movement or partial movement strategies. In section 3, I turn to *wh*-questions in Singapore Malay and observe that there are striking parallelisms between this variety of Malay and CSE not only with respect to the availability of the three question-forming strategies but also with respect to island constraints, non-interrogative, quantificational use of *wh*-variables, and the nominal (*what, where*) vs. non-nominal asymmetry (*how, why*) in terms of in-situ possibilities. I show that these parallelisms

directly follow from Cole and Hermon's (1998) theory of *wh*-questions in Singapore Malay, according to which an operator may either appear in the lexicon as a single word entry with the *wh*-word variable in-situ or be base-generated in the specifier of the scopal CP separately from the variable to be unselectively bound by the operator. The results here, thus, provide support for the hypothesis that Singapore Malay must have been a primary substrate language of CSE with respect to the syntax and semantics of *wh*-questions.

2.   *Wh*-Questions in CSE

In this section, I provide a historical and sociolinguistic background on the genesis and development of CSE and review the syntactic options for *wh*-question formation in this variety.

2.1.   *The Genesis and Development of CSE and Contact Ecology*

CSE, more commonly known as Singlish, is an English-lexified variety which is often categorized as a New English (e.g., Kachru 1992; Ho and Wong 2001). Bao and Wee (1999) define CSE as the "variety of English spoken which is a product of intense language contact between English and the local languages." Since British trade settlement in Singapore, beginning in 1819 with the arrival of Sir Stamford Raffles, British English has been very influential (Bloom 1986; Gupta 1998; Wee 2008). CSE involves the interplay between the suprastrate language, English, and the local substrate languages, mainly, Chinese languages, Malay and, to a lesser extent, Tamil (Bao and Wee 1999: 1). According to a 2000 Census report, the 3.2 million citizens of Singapore were composed of the following ethnic groups: 76.8% Chinese, 13.9% Malays, 7.9% Indians and 1.4% others (Wee 2006: 345). Accordingly, CSE exhibits substratal influences from more than one local language. When it comes to the significance of the primary substrate language of CSE, however, researchers' positions are not uniform. On one hand, Gupta (1998) and Low and Brown (2005) argue that Baba Malay, a Malay-based creole spoken by Peranakans or Straits-born Chinese, and Bazaar Malay, a Malay-based pidgin often spoken in trading centers, are the principal substrates. On the other hand, Bao (1995, 2005), Bao and Wee (1999), and Lee et al. (2009) claim that Chinese languages (Hokkien, Cantonese, and Mandarin)

are the primary substrates, given that Chinese immigrants from these linguistic backgrounds were early settlers in Singapore.

Although the majority of the early Chinese settlers in Singapore spoke various non-Mandarin dialects of Chinese, the 1979 implementation of the nation-wide *Speak Mandarin Campaign* has discouraged the widespread use of traditional Southern Chinese varieties in Singapore. Mandarin was propagated in this campaign as the unifying language amongst the Chinese population. As a result, ethnically Chinese students were made to study Mandarin as their heritage language as part of the country's mandatory Mother Tongue education. The success of this campaign was evident from a population census in 2000, where an overwhelming 82.2% of the literate ethnic Chinese population indicated their literacy in Mandarin, according to Statistics Singapore 2000. Moreover, Singapore's Department of Statistics (2001, 2006, cited in Vaish 2008: 452) says that the number of Mandarin speakers has increased dramatically from 30.1% in 1990 to 47.2% in 2005 while the number of Chinese dialect speakers decreased from 50.3% to 23.9% over the same period. Instruction at most Singapore schools is conducted in English. However, coupled with the effects of the national Bilingual Policy in 1966, the linguistic ecology in Singapore has provided a suitable environment for the switch from Southern Chinese dialects to Mandarin among young Chinese Singaporeans. The policy in question encourages Singaporeans to be bilingual in English and one of the three officially assigned ethnic mother tongues: Mandarin for the Chinese, Malay for the Malays and Tamil for the Indians (Wee 2006: 345).

Although both Tamil and Malay are commonly suggested as substrate languages of CSE, their grammatical influences are generally considered to be less significant in comparison to the Chinese languages. This is especially the case with Tamil due to the fact that the number of ethnic Indians is small compared to the Chinese and the Malays. Among Malay influences on CSE are the CSE passive construction known as *kena*-passive (Bao and Wee 1999), the use of reduplication and the sentence-final discourse particle *lah*.

The primary purpose of this paper is to suggest one new area in which CSE has inherited and stabilized a syntactic character from (a dialect of) Malay. We show in the next section that CSE permits three options for *wh*-questions: full movement, partial movement and *wh*-in-situ. None of the local Chinese languages (Hokkien, Cantonese, and Mandarin) allows either full movement or partial movement whereas Malay has exactly the same set of question-forming

strategies and properties as CSE. Accordingly, this similarity suggests that Malay must have exerted a primary substrate influence in this area of grammar in CSE.

2.2. *Full, Partial and In-situ:* Wh-*Questions in CSE*

The syntax of *wh*-questions in CSE has been little studied in the literature (though, see Bao 2001, Gupta 1994, and Yip and Matthews 2007), but Yeo (2010) is the first to observe that this variety has the full range of *wh*-question forming strategies. Consider examples (1-2).

(1)   a.   **What** John think Mary like?   (full *wh*-movement)

        b.   John think Mary like **what**?   (*wh*-in-situ)

        c.   John think **what** Mary like?   (partial *wh*-movement)

            'What does John think Mary likes?'

(2)   a.   **Where** you think I go?   (full *wh*-movement)

        b.   You think I go **where**?   (*wh*-in-situ)

        c.   You think **where** I go?   (partial *wh*-movement)

            'Where do you think I went?'   (Yeo 2010: 9)

Example (1a) illustrates the full *wh*-movement construction as in Standard English. Example (1b) shows that CSE allows *wh*-in-situ, a result that is not surprising given the systemic substrate grammatical influences from Chinese in-situ languages. Finally, example (1c) illustrates that CSE also permits a partial *wh*-movement option. A similar pattern holds for the nominal *wh*-phrase *where*, as shown in (2a-c).

Bao (2001) observe that the typological status of CSE with respect to *wh*-question formation is accommodated by the binary [± wh-movement] parameter. Chinese is a [−wh-movement] language whereas English is a [+wh-movement] language. Bao notes that CSE selects either value with respect to this parameter. This simple-minded binary analysis, thus, cannot explain the existence of the partial *wh*-movement option in CSE.

This array of *wh*-question forming strategies can also be corroborated by the relative position of the question particle *ah*. Assuming that the particle and a *wh*-phrases form a

constituent, Yeo (2010) observes that this particle can be stranded in an in-situ position or an intermediate position or pied-piped to the sentence-initial specifier of CP. The examples illustrating this observation are given in (3a-c).

(3)   a.   **Where** you think I go **ah**?   (full *wh*-movement, stranding PRT in-situ)

         b.   **Where** you think **ah** I go?   (full *wh*-movement, stranding PRT intermediately)

         c.   **Where ah** you think I go?   (full *wh*-movement, pied-piping PRT to the front)

             'Where do you think I went?'   (Yeo 2010: 9)

The distribution of *wh*-adjuncts such as *why* is more limited. Specifically, *why* cannot be in-situ but instead must undergo either partial or full movement, as illustrated in (4a-c). Note that the sentence-final position of the particle *ah* indicates the launching site of the adjunct *wh*-phrase.

(4)   a.   **Why** he think you don't like him **ah**?

         b.   He think **why** you don't like him **ah**?

         c. * He think you don't like him **why ah**?

             'Why does he think you don't like him?'   (Yeo 2009: 10)

2.3.   *Partial and Full* Wh-*Movement in CSE and Substratal Influences*

As stated in section 2.1, it is extensively documented in the literature on Singapore English (Bao 2001, 2005; Bao and Lye 2005; Deterding et al. 2003; Ho and Platt 1993; Pakir 1991; Platt and Ho 1983, 1989; Platt and Weber 1980; Ritchie 1986; Lee et al. 2009) that CSE exhibits a spectacular range of syntactic differences from Standard English that can be traced back to the systemic substrate influences of the Chinese languages (Hokkien, Cantonese and Mandarin). Thus, the question is what language served as the substrate language for CSE. Importantly, these languages only allow *wh*-in-situ but exclude the partial and full movement options, as shown by the examples in (5a-c) from Mandarin, (6a-c) from Cantonese and (7a-c) from Hokkien.

(5)   Mandarin

    a.   * **Shenme** Lisi   shuo   Meili chi?   (full *wh*-movement)

          what   Lisi   say   Meili eat

          'What did Lisi say Meili eat?'

    b.   *Lisi   shuo   **shenme**   Meili chi?   (partial *wh*-movement)

          Lisi   say   what   Meili eat

          'What did Lisi say Meili eat?'

    c.   Lisi   shuo   Meili chi   **shenme**?   (*wh*-in-situ)

          Lisi   say   Meili eat   what

          'What did Lisi say Meili eat?'

(6)   Cantonese[1]

    a.   ***Matye** Lisi   waa   Meili   sik   zo?   (full *wh*-movement)

            what Lisi   say   Meili   eat   ASP

            'What did Lisi say Meili ate?'

    b.   * Lisi   waa   **matye** Meili sik   zo?   (partial *wh*-movement)

            Lisi   say   what   Meili eat   ASP

            'What did Lisi say Meili ate?'

    c.   Lisi   waa   Meili sik   **matye**?   (*wh*-in-situ)

            Lisi   say   Meili eat   what?

            'What did Lisi say Meili ate?

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[1] I thank Vivian Liu Wai Ling for the examples in (6a-c) and useful discussion. *Zo* is a marker of completive aspect in Cantonese.

(7)   Hokkien[2]

    a.   * **Simi**   Lisi   gong Meili jia?   (full *wh*-movement)

             what   Lisi   say   Meilia eat

             'What did Lisi say Meili eat?

    b.   * Lisi   gong **simi** Meili jia?   (partial *wh*-movement)

             Lisi   say   what Meili eat

             'What did Lisi say Meili eat?'

    c.   Lisi   gong Meili jia   **simi**?   (*wh*-in-situ)

             Lisi   say   Meili eat   what

             'What did Lisi say Meili eat?'

In the next section, I provide evidence, drawing on Cole and Hermon's (1998) analysis, that Singapore Malay must have exerted a substantial substratal grammatical influence on the formation of *wh*-questions in CSE.

3.   A Deterministic Theory of *Wh*-Questions and Substrate Influences from Singapore Malay

In this section, we extend Cole and Hermon's (1998) analysis of *wh*-questions in Singapore Malay to CSE. We show that this analysis correctly accounts for a wide range of syntactic and semantic parallelisms that hold between *wh*-questions in Singapore Malay and those in CSE.

3.1.   *Cole and Hermon's (1998) Analysis of* Wh-*Questions in Singapore Malay*

Cole and Hermon (1998) propose that Singapore Malay allows two options in (8a, b) with regard to the possible combination of the *wh*-variable and the interrogative operator as a lexical item.

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[2] I thank Wan Yee Lim for the examples in (7a-c) and useful discussion.

(8)   Cole and Hermon's (1998) Analysis of Singapore Malay *Wh*-Questions

a.   Option One: An OP appears in the lexicon as a single entry with the *wh*-word (the variable), thereby forcing movement of the *wh*-word with the OP;

b.   Option Two: An OP is generated separately from the *wh*-word, with the *wh*-word acting as a variable bound by OP.   (Cole and Hermon 1998: 239)

When the option (8a) is chosen, Malay behaves as English in that it exhibits overt movement of a *wh*-phrase into the scopal specifier of CP, as shown in (9a). When the option (8b) is chosen, on the other hand, Malay behaves as Chinese in that it exhibits *wh*-in-situ, as shown in (9b).

(9)   a.   **Di**   **mana** Ali   membeli   pangsapuri?
                at   where Ali   buy   condominium
                'Where did Ali buy a condominuium?'

        b.   Ali   membeli   pangsapuri   **di**   **mana**?
                Ali   buy   condominium   at   where
                'Where did Ali buy a condominium?

                                        (Singapore Malay: Cole and Hermon 1998: 226)

The partial *wh*-movement option, Cole and Hermon argue, arises when a *wh*-phrase consists of an OP+VAR that has overtly moved to an intermediate, non-scopal specifier of CP. After Spell-Out, the partial moved *wh*-operator undergoes further covert movement into the scopal specifier of CP to replace the *wh*-expletive (comparable to the overt *wh*-expletive *was* in German) for the purposes of Full Interpretation (Chomsky 1986).

3.2.   *Extending Cole and Hermon's Theory to CSE* Wh-*Questions*

Cole and Hermon's (1998) analysis can directly be extended to *wh*-questions in CSE. First, the overt *wh*-movement of the English-type arises when an operator and a *wh*-variable are combined as a single entry in the numeration. The OP+VAR undergoes successive-cyclic movement to the matrix, scopal specifier of CP. Second, the *wh*-in-situ option of the Chinese-type obtains when the null operator is base-generated directly in the scopal specifier of CP, unselectively binding

the in-situ *wh*-variable. Finally, the partial *wh*-movement option holds when the OP+VAR undergoes short movement into an intermediate specifier of CP, followed by the movement of the operator alone to the matrix specifier of CP to replace the *wh*-expletive in that position.

        Our analysis makes several predictions that are actually borne out. Firstly, we predict that *wh*-words in CSE that are overtly moved to the specifier of the matrix CP should obey island constraints (Ross 1967) whereas in-situ *wh*-words should not. This prediction is verified by the contrast in grammaticality between the (a) examples and (b) examples in (10-15). See Cole and Hermon (1998: 227-229) for the comparable examples from Singapore Malay that the CSE examples here are based upon.

(10)   Relative Clause Island/Complex NP Constraint

      a.   * Where$_i$ Ali like [girls who live t_i]?

      b.   Ali like [girls who live where]?

           'Where do the girls that Ali likes live?'

(11)   Sentential Subject Island

      a.   * Who$_i$ [that Ali marry t_i] upset his mother?

      b.   [That Ali marry who] upset his mother?

           'Who did Ali marry that upset his mother?

(12)   Adjunct Island

      a.   * What$_i$ Ali got fired [because he bought t_i]?

      b.   Ali got fired [because he bought what]?

           'What did Ali buy that got him fired?'

(13)   *Wh*-Island

      a.   * What$_i$ you wonder [where$_j$ Mary bought t_i t_j]?

      b.   You wonder [where$_j$ Mary bought what t_j]?

           '*What do you wonder where Mary bought?'

(14) Negative Island

    a.   * Who$_i$ Ali [don't/not think Mary like t_i]?

    b.   Ali [don't/not think Mary like who$_i$]?

(15) Factive Island

    a.   * What$_i$ you (are happy) [(that) Ali studies t_i]?

    b.   You (are) happy [(that) Ali studies what]?

        'What did Ali study that made you happy?'

The (a) examples in (10-15) show that full overt *wh*-movement exhibits the standard array of island constraints on movement. The (b) examples in (10-15) show that in-situ *wh*-words are not restricted from occurring within these islands.

    Secondly, according to Cole and Hermon's theory, when the [OP … VAR] option is chosen for the *wh*-in-situ construction, the question word itself is a variable that can be bound by a phonologically null question operator. Cole and Hermon point out that, as a natural consequence of this available strategy in Malay, *wh*-words can allow binding by non-interrogative operators, as illustrated in (16a, b).

(16) Use of *Apa* 'what' as a variable

    a.   Dia   tidak membeli   **apa-apa**   untuk saya.

        he   not   buy   what-what   for   me

        'He did not buy anything for me.'

    b.   Dia   tidak membeli   **apa-pun**   untuk saya.

        he   not   buy   what-also   for   me

        'He did not buy anything for me.'   (Cole and Hermon 1998: 239)

In (16a), the variable *apa* 'what' is successfully bound by the existential quantifier represented by reduplication (*apa-apa* 'what-what'). Similarly, in (16b), the variable is bound by the existential quantifier *–pun* 'also'. CSE exhibits a similar pattern suggesting that a *wh*-word in CSE can serve as an independent variable independently from the interrogative operator. Consider CSE examples (17a-d):

(17)   a.   I *what* also never eat.

                  'For all *x*, I did not eat *x*.'

        b.   I *who* also never meet.

                  'For all *x*, I did not meet *x*.'

        c.   I *when* also never skip class.

                  'For all *x*, I did not skip class during *x*.'

        d.   I *where* also never go.

                  'For all x, I did not go to x.'

The examples in (17a-d) show that *wh*-phrases such as *what, who, when* and *where* can be bound by a non-*wh*-operator, namely, the universal quantifier represented by the phrase *also never*.

        Thirdly, Cole and Hermon follow Reinhart's (1993)/Tsai 's (1994) observation that *wh*-adverbials cannot be bound by unselective binding. Hence, these adverbials are lexically stipulated to obligatorily take the [OP+VAR] option subject to obligatory *wh*-movement. This analysis thus correctly predicts the contrast in grammaticality between the (a) examples and the (b) examples in (18-19) from Singapore Malay.

(18)   a.   **Kenapa**   Fatimah   menangis?

                  why   Fatimah   cry

                  'Why did Fatimah cry?'

        b.   * Fatimah   menangis   **kenapa**?

                  Fatimah   cry   why

                  'Why did Fatimah cry?'   (Singapore Malay: Cole and Hermon 1998: 226)

(19)   a.   **Bagaimana** Ali   memandu   kereta?

                  how   Ali   drive   car

                  'How does Ali drive the car?'

        b.   * Ali   memandu   kereta   **bagaimana**?

                  Ali   drive   car   how

                  'How does Ali drive the car?'   (Singapore Malay: Cole and Hermon 1998: 226)

CSE shows the striking similarity with Singapore Malay with respect to the nominal vs. non-nominal *wh*-phrase. This point is verified by the examples in (20a-c) with the adverbial *wh*-phrase *why* in CSE. Compare these examples with those in (2a-c) with the nominal *wh*-phrase *where*, repeated here as (21a-c).

(20)   a.   **Why** he think you don't like him **ah**?   (full *wh*-movement)

        b.   * He think you don't like him **why ah**?   (*wh*-in-situ)

        c.   He think **why** you don't like him **ah**?   (partial *wh*-movement)

            'Why does he think you don't like him?'   (Yeo 2010: 9)

(21)   a.   **Where** you think I go?   (full *wh*-movement)

        b.   You think I go **where**?   (*wh*-in-situ)

        c.   You think **where** I go?   (partial *wh*-movement)

            'Where do you think I went?'   (Yeo 2010: 9)

The paradigm in (20a-c) shows then that the non-nominal wh-phrase *why* obligatorily takes the [OP+VAR] option as a lexically stipulated property. This observation also receives independent support from the inability of this phrase to be used as a variable bound by a non-*wh*-operator in the context of universal quantification, as shown in (22).

(22)   * I *why* also never cheat.

     'For all *x*, I did not cheat because of *x* reason.'

Finally, recall that under Cole and Hermon's analysis, a partial *wh*-structure arises when an [OP+VAR] phrase undergoes short movement in an intermediate specifier of CP, followed by the movement of the OP to replace the *wh*-expletive in the matrix specifier of CP. As empirical support for this analysis, Cole and Hermon note, citing the observation first made by Saddy (1991) for Indonesian, that island constraints obtain in Malay when an island boundary intervenes between the surface position of the partially moved *wh*-phrase and the specifier of the matrix CP. The prediction then is that the partially moved *wh*-phrase in CSE should also show the same profile. The (a) examples in (23-25) show that this prediction is borne out. The (b)

examples in (23-25) show, on the other hand, that in-situ *wh*-phrases do not cause island violations.

(23)   The Adjunct Island Constraint

     a.   * John like the girl because [Tom think [what$_i$ she eat t_i]]?

     b.   John like the girl because [Tom think [she eat what]]?

(24)   The Complex NP Constraint

     a.   * John like [the man [that think what$_i$ [Mary eat t_i]]]

     b   John like [the man [that think [Mary eat what]]]?

(25)   The Negative Island Constraint

     a.   * John [didn't say what$_i$ Mary like t_i]?

     b.   John [didn't say Mary like what]?

The four parallelisms between CSE and Malay noted above, therefore, strongly suggest that Cole and Hermon's (1998) theory of *wh*-question formation strategies is directly transportable to CSE questions as well.

3.3.   *Substratal Influences from Singapore Malay and Implications for the Formation of CSE*

There are two opinions regarding the primary languages that played a crucial role in the genesis and development of CSE. Many researchers consider southern Chinese languages such as Hokkien and Cantonese, or Mandarin, as primary substrates of SCE (Bao 2001, 2005; Bao and Lye 2005; Deterding et al. 2003; Ho and Platt 1993; Pakir 1991; Platt and Ho 1983, 1989; Platt and Weber 1980; Ritchie 1986; Lee et al. 2009). However, others observe that Malay is also involved in the formation of CSE (Gupta 1998; Low and Brown 2005; Lim 2007). As an indigenous language, influences on CSE from the Malay languages can be observed at different levels. Notable features include lexical items such as *makan* 'to eat, food' and *jalan* 'to walk, road', reduplication (e.g., *jalan-jalan* 'walk') and the so-called *kena*-passive (Bao and Wee 1999). As stated in section 2.2, however, the current dominant view in the field seems to be that

the grammatical influences of Malay are generally less important and systemic in comparison to the southern Chinese languages. In this regard, our results in this paper are significant. I have shown that the Chinese languages that have been regarded as primary substrate languages of CSE do not possess the full range of strategies for *wh*-question formation; they only permit *wh*-in-situ. I have further observed that there are striking point-by-point syntactic and semantic parallelisms between Singapore Malay and CSE and have shown that these parallelisms can be straightforwardly captured by Cole and Hermon's (1998) minimalist analysis of *wh*-questions in Singapore Malay. This result, thus, strongly suggests that this variety of Malay must have played a primary role in the grammar of CSE with respect to *wh*-question formation.

4.   Conclusions

In this paper, I have provided a comprehensive description and analysis of *wh*-questions in CSE. I have shown that CSE has full movement, partial movement and *wh*-in-situ options like Singapore Malay, but unlike the (southern) Chinese languages such as Hokkien, Mandarin and Cantonese. I have argued that the range of options attested in CSE arises due to the substrate syntactic influences of Malay. Specifically, extending Cole and Hermon's (1998) analysis of the typology of *wh*-questions, I have proposed that the influence is that of a lexico-syntactic parametrization: an operator is either combined in a single word with a *wh*-variable or base-generated directly in the specifier of the matrix, scopal CP and unselectively binds the *wh*-variable in-situ. The former option yields the full movement configuration as in English whereas the latter option yields the in-situ configuration as in Chinese and Singapore Malay. The partial *wh*-movement configuration arises when an [OP+VAR] phrase is moved to an intermediate specifier of CP, followed by the movement of the operator alone to the specifier of the matrix CP to eliminate the null expletive for the purposes of Full Interpretation. I have further demonstrated that this analysis also correctly predicts a wide range of syntactic and semantic similarities between *wh*-questions in Singapore Malay and CSE such as island-sensitivity, asymmetries between the nominal vs. non-nominal *wh*-phrases in terms of movement possibilities, and the non-interrogative use of *wh*-variables under non-interrogative, quantificational contexts. To the extent that the proposed extension of Cole and Hermon's analysis to *wh*-questions in CSE is

tenable, the results presented here provide strong support for the hypothesis that the syntax of *wh*-questions in CSE must have arisen from the substrate grammatical influences of Singapore Malay.

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