Copular Constructions in Colloquial Singaporean English

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List of abbreviations

CSE . . . . . Colloquial Singaporean English, also known as Singlish

ESL . . . . . English as a second language

L1 . . . . . First language

L2 . . . . . Second language

LFG . . . . . Lexical-Functional Grammar

MT . . . . . Mother tongue

SSE . . . . . Standard Singaporean English

Glosses

Standard abbreviations have been used for interlinear glosses in accordance with the Leipzig Glossing Rules [1].

1 . . . . . First person

2 . . . . . Second person

3 . . . . . Third person

ACC . . . . . Accusative case

CLASS . . . . . Classifier

COP . . . . . Copula

DECL . . . . . Declarative mood

DEF . . . . . Definite

DIST . . . . . Distal deixis

EXIST . . . . . Existential copula

F . . . . . Feminine gender

FUT . . . . . Future tense

IPFV . . . . . Imperfective aspect

LOC . . . . . Locative copula

M . . . . . Masculine gender

N . . . . . Noun

NEG . . . . . Negation

NFUT . . . . . Non-future tense

NOM . . . . . Nominative case

PST . . . . . Past tense

PFV . . . . . Perfective aspect

POS . . . . . Positive degree

POSS . . . . . Possessive case

PRS . . . . . Present tense

PROX . . . . . Proximal deixis

SG . . . . . Singular number

SUBJ . . . . . Subject

TOP . . . . . Topic

V . . . . . Verb

VIS . . . . . Visual evidentiality

ZAI . . . . . Mandarin *zài*; see Section 2.3.3

You can never understand one language until you understand at least two.

— John Searle [2]

1 Introduction

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Singapore has received much attention in sociolinguistics for its interesting linguistic ecology, involving institutionalised multilingualism, and the existence of a contact variety, Colloquial Singaporean English (CSE; commonly known as Singlish). This environment has motivated research regarding the nature of language contact, features of contact varieties, and the use of linguistic variables to index social meaning, among other issues (e.g. [3]).

One linguistic variable relevant to CSE is copula use in predicative constructions. In English—and CSE—the copula is the verb *be*; however, in CSE, unlike English, the copula is optional in some contexts:

(1) *He (is) very happy.*

Copular constructions in general are of interest to syntacticians as their cross-linguistic variability poses complex issues regarding their grammatical representation and analysis. Within the Lexical-Functional Grammar (LFG; [4, 5]) framework, the f-structure analysis of copular constructions in particular remains an open question, with different analyses supported by various arguments [5].

Thus, copular constructions in CSE reside in an interesting nexus between syntax and sociolinguistics. This project aims to provide a coherent account of the copula in CSE, including its evolution, distribution, and analysis.

In the remainder of this chapter, I provide an overview of the linguistic history and environment of Singapore. Chapter 2 offers an LFG analysis of copular constructions, focusing on Standard Singaporean English (SSE), Chinese, and Malay, the main (syntactic) influences on CSE. Chapter 3 describes a questionnaire study on the acceptabilities of copular constructions in contemporary CSE. Chapter 4 synthesises material from the earlier chapters and concepts from contact and historical linguistics to provide an analysis of the evolution of CSE copular constructions. Finally, Chapter 5 summarises the project with a few concluding remarks.

1.1 Language in Singapore

1.1.1 Early and colonial history

Singapore's strategic location at the southern tip of the Malay Peninsula made it a popular stopover point for sailors and traders [6]. The prevailing pre-colonial *lingua franca* was Bazaar Malay, a pidgin variety of Malay, which allowed regional Malays to communicate with other traders [7]. Simultaneously, the diversity of peoples was reflected in the highly multilingual environment, involving multifarious varieties from different language families.

The British colonisation of Singapore in 1819 brought English into this linguistic environment, along with the (limited) introduction of English-medium education to cultivate English-speaking governmental intermediaries [8]. Singapore's establishment as a key regional trading hub also brought an influx of

immigrants, particularly from southern China (mainly Hokkiens, Teochews, and Cantonese), southern India (mainly Tamils), and the nearby Malaya and Dutch East Indies [9]. Hokkiens formed the largest migrant group, and a simplified version of the Hokkien language became another common language of interethnic communication [7]. By the 20$^{\text{th}}$ century, the Chinese were the numerical majority in Singapore, followed by Malays, Indians, and then other groups including Europeans and Eurasians [10].

This linguistic diversity continued until the Second World War, when Japanese was imposed as the official language during the Japanese Occupation. After the British reclaimed Singapore at the end of the war, subsequent dissatisfaction at the colonial masters resulted in increasing independence, beginning with self-government in 1959, followed by a short-lived union with Malaysia from 1963 to 1965, then full independence in 1965 as a sovereign state.

1.1.2 Independence and language policies

Singapore's independence necessitated the uniting of an ethnically and linguistically diverse population as a single nation-state, and the development of a robust economy in the absence of natural resources. Language policy became a vital instrument for both objectives [11, 12]. English was thus promoted as an official language of Singapore: as a language not tied to any of the three largest ethnic groups, it could unite the multiracial population, and as a language of major economic superpowers, it could attract foreign investment and multinational corporations.

However, the government was also concerned that the emphasis on English may cause increasing 'Westernisation' and a concomitant loss of desirable 'Asian' values such as collectivism. This resulted in the implementation of a mother tongue (MT) policy, in which each ethnic group was assigned an official language—Mandarin for the Chinese, Malay for the Malay, and Tamil for the Indians [13]. This definition of 'MT' did not necessarily reflect the language that was spoken at home: the Chinese often spoke another Chinese variety (generally of the Min, Yue,

or Hakka language groups), while Indians spoke a wide array of Indian languages (of both Indo-Aryan and Dravidian families).

Nonetheless, these two policies have resulted in the encouragement of bilingualism and a stabilisation of the multilingual environment in Singapore [14]. From the 1980s onward, most Singaporeans have been (functionally) bilingual in English and an MT.

1.2 Colloquial Singaporean English

1.2.1 Evolution of CSE

The emergence of CSE occurred within this multilingual environment, with the education system being a significant contributor [15]. As non-English speakers learned English through English-medium schools, the structural and lexical features of their own languages were transferred into the emerging variety [16]. One significant source of influence must have been Bazaar Malay, the *lingua franca* of the region. Another would be Chinese varieties, especially Min (e.g. Hokkien, Teochew, Hainanese) and Yue (e.g. Cantonese) varieties. A number of other languages such as Tamil and Indonesian varieties have also contributed lexical borrowings, although their syntactic contribution was not as significant.

As English was considered the language of the elite and of socioeconomic mobility, increasingly many students enrolled in English-medium schools from the late 19$^{\text{th}}$ century onward [17]. This continued after the Second World War, when the United States' influence in the global political and economic arenas encouraged Singaporeans to improve their English. The spread of English education entailed the concurrent spread and development of CSE, which overtook Bazaar Malay as the Singaporean *lingua franca*.

Post-independence, the Singapore government became concerned about CSE's popularity, arguing that Singaporeans should be able to speak a form of English understandable by other anglophonic countries. This resulted in the "Speak Good English Movement", launched in 2000, aiming to promote "good English" while

eliminating CSE [18]. This movement reinforced negative sentiments and stereotypes towards CSE [12], although it has since relaxed its stance against CSE [19].

Nevertheless, CSE remains a variety spoken by Singaporeans today regardless of ethnic background or MT. In recent years, it has also come to be considered a marker of Singaporean identity [12]. Different ideologies and attitudes towards CSE continue to influence how and when it is used, but it is doubtlessly a crucial part of Singapore's contemporary linguistic landscape.

1.2.2 Status of CSE

Classifying CSE into a contact variety typology has been contentious in contact linguistics. It has been, by various linguists, labelled a 'creoloid' [20], 'World English' [21], 'New Variety of English' [22], or 'indigenised variety' [23]. However, Wee [12] has pointed out that such static approaches to defining CSE fail to capture its dynamic nature, which is "part of a complex involving culture and identity that is changing as a result of globalization." (p. 171) Thus, a more accurate description of CSE would consider its position within Singapore's linguistic environment.

CSE and SSE continue to coexist in Singaporeans' speech; this has led to a number of proposed approaches to the role of CSE in Singapore, including *inter alia* 'continuum' [20], 'diglossia' [10], 'triangles of proficiency' [22], and the 'cultural orientation model' [24]. While a precise situation of CSE is not the focus of this project, perhaps the most helpful model for understanding CSE and CSE variation is Leimgruber's indexical approach [3]: that linguistic variables index social positions (e.g. formality, emotion, socioeconomic aspirations), and that speakers select features that appropriately indicate their desired stance, rather than necessarily adopting an entire set of features associated with CSE or SSE. Under this model, it is possible to describe CSE features without presuming that they must always co-occur within any particular utterance.

1.3 Summary

Singapore's rich multilingual history has incorporated languages including English, Chinese, and Malay varieties, which have served as source materials for CSE. Singaporeans regularly use CSE and SSE features within utterances to index their stances, which vary across linguistic and social contexts. One such feature is the form of copular constructions, whose analysis within the LFG framework is presented in the following chapter.

Grammar is often a generic way of referring to any aspect of English that people object to.

— Jeremy Butterfield [25]

2

Copular Constructions in Lexical-Functional Grammar

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2.1 LFG analyses of copular constructions

Copular constructions refer to any construction containing a subject and a predicative expression[1] (with or without an overt copula), such as these examples from English:

(2) a. *John is* [$_{\text{NP}}$ *a doctor*].

b. *The bus is* [$_{\text{AP}}$ *fast*].

c. *Her toy is* [$_{\text{PP}}$ *in the box*].

This is particularly interesting in LFG for two reasons. Firstly, this class of sentences exhibits significant cross-linguistic and even intra-language variation (e.g. different constructions for different complement types, or different copulas with different uses). Secondly, while there is general agreement about the c-structure analysis of copular constructions in LFG, a number of different f-structure analyses have been proposed, detailed in Figure 2.1 (see [5, 26, 27]). This diversity of views contrasts with the principle of universality in LFG, which asserts that "internal structures are largely invariant across languages" [4] (p. 42). The fundamental question is whether there is an underlying predication, and thus f-structure, that is common across different copular constructions.

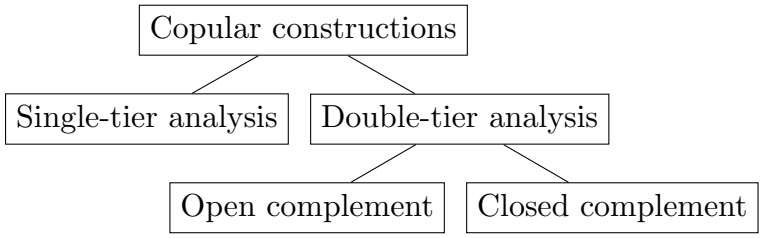

Figure 2.1: Proposed LFG analyses of copular constructions

The proposed analyses differ in terms of number of tiers in the f-structure: in single-tier analyses the predicative functions as the sentential head and selects for a subject, while in double-tier analyses both the subject and the predicative

[1] I use 'predicative (expression)' to refer to the part of the copular construction that is not the subject or the copula (if there is one); this is used interchangeably with '(copular) complement'. 'Predicate' refers to everything in a clause other than the subject, while 'predicator' refers to the word that contributes the PRED value, i.e. the head.

are arguments of a distinct verbal predicator. Furthermore, there are two possible double-tier analyses, one involving an open complement (XCOMP), in which the predicative selects a subject under functional control of the main sentential subject, and the other involving a closed complement (PREDLINK), in which both the subject and predicative are selected by the copula, which is the main predicator of the sentence.

2.1.1 Single-tier analysis

In the single-tier analysis, the predicative serves as the sentential head and selects for a subject. This example from Japanese is adapted from [26]:

(3) *hon wa akai (desu).*
book TOP red (COP)
'The book is red.'

(4) $\begin{bmatrix} \text{PRED} & \text{'red}\langle \text{SUBJ} \rangle\text{'} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'book'} \end{bmatrix} \end{bmatrix}$

Dalrymple et al. [26] argue that this analysis is preferred when the copula is always optional, which suggests that the predicative provides the main PRED for the clause. However, this requires the assumption that such predicatives can select for a subject. In contrast, the copula is obligatory with nominal predicatives in Japanese:

(5) *hon wa shōsetsu *(desu).*
book TOP novel *(COP)
'The book is a novel.'

Dalrymple et al. [26] thus suggest that adjectives can select for a subject in Japanese while nouns cannot. This requires different analyses for adjectival and nominal copular constructions, which fails to capture the common underlying predication [27].

More convincing evidence for single-tier analyses comes from languages in which non-verbal predicates carry verbal morphology (when they function as the

clausal predicate) [28], suggesting that they should be analysed in the same way as standard verbal predicates, as in Abkhaz:

(6) a. *də-psə́-w-p'.*
3SG.SUBJ-dead-PRS-DECL
'He is dead.'

b. *də-cŵa-w-p'.*
3SG.SUBJ-sleep-PRS-DECL
'He is sleeping.'

In such examples, the absence of a verbal predicate and the inflection on the non-verbal predicate suggest that a single-tier analysis may be most appropriate. However, Nordlinger and Sadler [28] also note that tense stacking on a nominal is possible in some languages, such as Tariana:

(7) *pi-ya-dapana-miki-ɾi-naka.*
2SG-POSS-house-PST-NFUT-PRS.VIS
'This is what used to be your house (I can see it).'

They suggest that these constructions require two levels of f-structure, with one being the locus of the nominal tense and the other being the locus of the propositional tense. This is necessary to avoid inconsistency in the tense feature of the clause-level f-structure (if a single-tier analysis were used)—compare (8) and (9).[2]

(8)
$$\begin{bmatrix} \text{PRED} & \text{'null-be}\langle \text{SUBJ,PREDLINK} \rangle\text{'} \\ \text{TENSE} & \text{PRS} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \end{bmatrix} \\ \text{PREDLINK} & \begin{bmatrix} \text{PRED} & \text{'house}\langle \text{POSS} \rangle\text{'} \\ \text{TENSE} & \text{PST} \\ \text{POSS} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 2 \\ \text{NUM} & \text{SG} \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

[2] Attia [27] proposes 'null-be' as the main clausal predicator in double-tier zero copula constructions; this analysis is also adopted in this project.

(9)
$$\begin{bmatrix} \textsc{pred} & \text{`house}\left\langle \textsc{poss} \right\rangle\text{'} \\ \textsc{tense} & {}^{*}\textsc{prs}/\textsc{pst} \\ \textsc{poss} & \begin{bmatrix} \textsc{pred} & \text{`pro'} \\ \textsc{pers} & 2 \\ \textsc{num} & \textsc{sg} \end{bmatrix} \end{bmatrix}$$

To accommodate the (legal) f-structure in (8), they note that inside-out equations are required in the f-descriptions associated with the various tense affixes:

(10) a. PST-NFUT: $(\uparrow \textsc{tense}) = \textsc{pst}$

b. PRS.VIS: $((\textsc{predlink} \uparrow)\ \textsc{tense}) = \textsc{prs}$

However, they do not justify why this analysis is not permissible for clauses with non-verbal predicates that do *not* display tense stacking. The avoidance of inside-out equations seems to be an insufficient explanation, especially since they have to be invoked in otherwise similar constructions that do involve tense stacking.

Rather, an argument *against* single-tier analyses for cases of non-verbal predication is that inflection on nominal predicatives (e.g. PERS, NUM, GEND, CASE) would have to appear in the clause-level f-structure, even though these are strictly speaking not grammatical features of the clause. One example of this from Russian was even described by Nordlinger and Sadler [28], reproduced below (with added '?' indicating featural oddity):

(11) *ona* *vrač.*
3SG.F.NOM doctor.SG.NOM
'She is a doctor.'

(12)
$$\begin{bmatrix} \text{PRED} & \text{`doctor}\langle \text{SUBJ} \rangle\text{'} \\ ?\text{NUM} & \text{SG} \\ ?\text{CASE} & \text{NOM} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{`pro'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \\ \text{GEND} & \text{F} \\ \text{CASE} & \text{NOM} \end{bmatrix} \end{bmatrix}$$

Indeed, this issue is also relevant for nominal predicatives in English (and CSE):

(13) *That is me.*

(14)
$$\begin{bmatrix} \text{PRED} & \text{`pro}\langle \text{SUBJ} \rangle\text{'} \\ ?\text{PERS} & 1 \\ ?\text{NUM} & \text{SG} \\ ?\text{CASE} & \text{ACC} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{`pro'} \\ \text{DEIXIS} & \text{DIST} \\ \text{NUM} & \text{SG} \end{bmatrix} \end{bmatrix}$$

Thus, although verbal morphology on non-verbal predicates seems to support single-tier analyses for some languages, more data are required to establish that copular constructions in such languages should actually take a single-tier analysis over a double-tier analysis.

2.1.2 Open complement double-tier analysis

In double-tier analyses, the main predicator is either an overt copula or a dummy predicator when no copula is present, while the predicative is represented in an 'inner-tier' f-structure. The open complement analysis further assumes that

functional control is involved in copular constructions. Dalrymple et al. [26] propose that this is relevant with subject–predicative agreement, as in French:[3]

(15) *Elle est petite.*
3SG.F COP.3SG.PRS small.SG.F
'She is small.'

(16)
$$\begin{bmatrix} \text{PRED} & \text{'be}\langle \text{XCOMP} \rangle\text{SUBJ'} \\ \text{TENSE} & \text{PRS} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \\ \text{GEND} & \text{F} \end{bmatrix} \\ \text{XCOMP} & \begin{bmatrix} \text{PRED} & \text{'small}\langle \text{SUBJ} \rangle\text{'} \\ \text{SUBJ} & \boxed{1} \end{bmatrix} \end{bmatrix}$$

Dalrymple et al. [26] argue that agreement seems to suggest that the predicative selects for its subject, thereby supporting this analysis. They also note that an XCOMP analysis permits agreement to be expressed as simple constraining equations in the predicative's lexical entry:

(17) *petite* $(\uparrow \text{PRED}) = \text{'small } \langle \text{SUBJ} \rangle\text{'}$
$(\uparrow \text{SUBJ NUM}) =_c \text{SG}$
$(\uparrow \text{SUBJ GEND}) =_c \text{F}$

Two issues with this argument were raised by Attia [27]. Firstly, agreement is insufficient as evidence that the adjective selects for the subject, as subject–adjectival and subject–verbal agreement are different in French (e.g. verbs agree in person with their subjects, unlike adjectives), and agreement may be governed by semantics rather than syntax. Secondly, the simplicity of expressing the agreement relation in equations should not be a factor in determining appropriateness, and furthermore a constructional approach permits the agreement to be expressed in the phrase structure:

[3]This analysis assumes that SUBJ is athematic since it is selected for by the complement rather than the copula.

(18) $\text{V'} \rightarrow \quad \{\ \text{V} \mid \epsilon\ \} \qquad \{\ \text{NP} \mid \text{AP}\ \}$
$\uparrow = \downarrow \qquad (\uparrow \textsc{predlink}) = \downarrow$
$(\downarrow \textsc{num}) = (\uparrow \textsc{subj num})$
$(\downarrow \textsc{gend}) = (\uparrow \textsc{subj gend})$

Dalrymple et al. [26] raised another argument for an XCOMP analysis, suggesting that cases in which the subjects of the copula and its complement clause are the same should be analysed using an open complement, due to an apparent standard control relation between the two subjects:

(19) *It is likely to rain.*

(20)
$$\begin{bmatrix} \textsc{pred} & \text{`be}\langle \textsc{xcomp} \rangle\textsc{subj}\text{'} \\ \textsc{subj} & \boxed{1}\ \begin{bmatrix} \textsc{form} & \text{it} \end{bmatrix} \\ \textsc{xcomp} & \begin{bmatrix} \textsc{pred} & \text{`likely}\langle \textsc{xcomp} \rangle\textsc{subj}\text{'} \\ \textsc{subj} & \boxed{1} \\ \textsc{xcomp} & \begin{bmatrix} \textsc{pred} & \text{`rain}\langle\rangle\textsc{subj}\text{'} \\ \textsc{subj} & \boxed{1} \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

This would be problematic for a closed complement analysis, as this requires an inside-out control equation for adjectives like *likely* as in (21) to permit f-structures such as (22); Laczkó finds these unusual and costly [29].

(21) *likely* $(\uparrow \textsc{pred}) = \text{`likely}\ \langle \textsc{comp} \rangle\text{'}$
$(\uparrow \textsc{comp subj}) = ((\textsc{predlink}\ \uparrow)\textsc{subj})$

(22)
$$\begin{bmatrix} \textsc{pred} & \text{`be}\langle \textsc{predlink} \rangle\textsc{subj}\text{'} \\ \textsc{subj} & \boxed{1}\ \begin{bmatrix} \textsc{form} & \text{it} \end{bmatrix} \\ \textsc{predlink} & \begin{bmatrix} \textsc{pred} & \text{`likely}\langle \textsc{comp} \rangle\text{'} \\ \textsc{comp} & \begin{bmatrix} \textsc{pred} & \text{`rain}\langle\rangle\textsc{subj}\text{'} \\ \textsc{subj} & \boxed{1} \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

However, Laczkó [29] has pointed out that this does not preclude a single-tier analysis, which allows for the control relationship to be expressed similarly to other standard examples of raising—compare (23) and (24).

(23) a. *is* $(\uparrow \textsc{tense}) = \textsc{prs}$
$(\uparrow \textsc{subj pers}) = 3$
$(\uparrow \textsc{subj num}) = \textsc{sg}$

b. *likely* $(\uparrow \textsc{pred}) =$ 'likely $\langle \textsc{xcomp} \rangle$ $\textsc{subj}$'
$(\uparrow \textsc{subj}) = (\uparrow \textsc{xcomp subj}))$

(24) *seems* $(\uparrow \textsc{pred}) =$ 'seem $\langle \textsc{xcomp} \rangle$ $\textsc{subj}$'
$(\uparrow \textsc{subj}) = (\uparrow \textsc{xcomp subj}))$
$(\uparrow \textsc{tense}) = \textsc{prs}$
$(\uparrow \textsc{subj pers}) = 3$
$(\uparrow \textsc{subj num}) = \textsc{sg}$

The strongest argument against an open complement double-tier analysis, raised by Dalrymple et al. [26], is in cases where the complement contains its own subject which is different from that of the main clause (e.g. clauses or gerunds), such as in (25). In such cases, an open complement analysis violates consistency:

(25) *The problem is that they appear.*

(26)
$$\begin{bmatrix} \textsc{pred} & \text{'be}\langle \textsc{xcomp} \rangle \textsc{subj}\text{'} \\ \textsc{subj} & \boxed{1}\ \begin{bmatrix} \textsc{pred} & \text{'problem'} \end{bmatrix} \\ \textsc{xcomp} & \begin{bmatrix} \textsc{pred} & \text{'appear}\langle \textsc{subj} \rangle\text{'} \\ \textsc{subj} & \begin{bmatrix} \textsc{pred} & *\text{'they'} \ / \ \boxed{1} \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

2.1.3 Closed complement double-tier analysis

An alternative double-tier analysis involves a closed complement (PREDLINK)—i.e. one without functional control. Both Attia [27] and Butt et al. [30] suggest that this can and should be the universal LFG analysis for copular constructions,

as it can capture the functional relationship regardless of the constituent type or semantic role of the copular complement. Furthermore, it can account for copular constructions whether or not an overt copular verb is present—if absent, a dummy 'null-be' predicator serves as the sentential head, as exemplified in (27) from Russian (adapted from [26]); compare this with the single-tier analysis in (11).

(27) *on* *student.*
3SG.M student
'He is a student.'

(28)
$$\begin{bmatrix} \text{PRED} & \text{'null-be}\left\langle \text{SUBJ,PREDLINK} \right\rangle\text{'} \\ \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \\ \text{NUM} & \text{SG} \\ \text{GEND} & \text{M} \end{bmatrix} \\ \text{PREDLINK} & \begin{bmatrix} \text{PRED} & \text{'student'} \\ \text{NUM} & \text{SG} \end{bmatrix} \end{bmatrix}$$

As such, the closed complement double-tier analysis seems to be most comprehensive and parsimonious, although it is plausible that other analyses may be more suitable for certain types of constructions and languages—viz. the single-tier analysis when the copula is always optional or when non-verbal predicates bear verbal morphology ((3), (6)), and the open complement double-tier analysis when there is subject–predicative agreement or in some raising constructions ((15), (20)). To understand and analyse the behaviour of the copula in CSE, I will first consider the structure of copular constructions in the lexifier and substrate languages.[4] In particular, I will focus on copular constructions involving NP, AP, and PP predicatives, which occur in all of the relevant languages.

[4]This is somewhat of an idealisation, as the specific varieties of English, Chinese, and Malay analysed here are almost certainly different to the varieties that were present during the formation of CSE. The lexifier would have been shaped by sailors, settlers, and schoolteachers, who are likely to have spoken a different variety of English [31]; there were few native speakers of Mandarin during the formative period of CSE, while Min and Yue varieties were dominant [9]; and the varieties of Malay in use would have been Bazaar Malay or Baba Malay, the latter a pidgin spoken by Chinese immigrants who intermarried with the local Malays [10]. Nonetheless, the key structural features relating to copular constructions are largely similar, and these varieties would

2.2 Copular constructions in SSE

In SSE, the copula *be* is obligatory in copular constructions regardless of complement type, as in (2) above. The presence of an overt copula and the lack of subject–predicative agreement or verbal morphology on non-verbal predicates suggest that the closed complement double-tier analysis is most relevant and parsimonious for copular constructions in SSE in general (barring possible exceptions such as raising).

2.3 Copular constructions in Chinese

There is a paucity of literature regarding Singaporean Chinese,[5] especially regarding its syntax [32]. Much of the syntactic description of Chinese has instead been based on Mainland China Mandarin. Singaporean Chinese is mostly similar on matters of syntax; exceptions are noted below where relevant.

2.3.1 NP predicatives in Chinese

In Chinese, the ordinary copula is *shì*. Similar to other constructions in this isolating language, this does not inflect for tense, number, or person (unlike *be* in English). *Shì* is typically used with NP complements:

(29) *yuēhàn *(shì) (gè) yīshēng.*
John COP CLASS doctor
'John is a doctor.'

With most NP predicatives, the copula is obligatory. Tang [33] suggested that predicative nominals can sometimes occur without the copula:

(30) *zhāngsān ∅ zhōngguó-ren.*
Zhangsan China-person
'Zhangsan is Chinese.'

have been the main influences on CSE from the 1980s onward, thus I have chosen to analyse the Singaporean standards of English, Mandarin, and Malay, or varieties close to them.

[5] While subsequent analyses on Chinese varieties will focus on Mandarin, I will continue to use 'Chinese' as a term covering various Chinese varieties, as they share relevant syntactic characteristics.

However, an informal poll I conducted suggested that this construction is unavailable in Singaporean Chinese: of 46 respondents, 40 rejected this sentence, 3 accepted it, while the remaining 3 were unsure.

Other specific types of NP predicatives seem to license copula-less constructions as informal responses to questions, including time and price [34]; these constructions also appear to be much more acceptable than (30):

(31) *jīntiān ∅ xīngqīliù.*
today Saturday
'Today is Saturday.'

(32) *zhè wǎn miàn ∅ sān kuài qián.*
this bowl noodle three dollar money
'This bowl of noodles is (costs) three dollars.'

Nonetheless, NP constructions generally require *shì*, and time and price nominals certainly permit an overt copula. I will assume that the general case involves an obligatory copula, and that other pragmatic factors permit copula-less constructions for these exceptional cases.[6]

2.3.2 AP predicatives in Chinese

On the other hand, AP predicatives disallow *shì*,[7] except with emphatic or focus marking [38]:

(33) *tā ∅ hěn kāixīn.*
3SG POS happy.
'He is happy.'[8]

[6]Yue-Hashimoto [35] analyses these cases as context-dependent ellipsis, which is governed by other syntactic and pragmatic factors. This is an interesting claim as answer fragments are typically constituents (see [36], pp. 197–199), thus analysing such constructions as 'ellipsis' requires the suggestion that $\text{NP}_{subject}$ + $\text{NP}_{predicative}$ is a valid constituent in Chinese. See Wei [37] for a transformational grammar approach to such constructions.

[7]The ability of adjectives to function as clausal predicates has led to suggestions that they should be considered intransitive stative verbs rather than a separate word class [39]. However, distributional analyses have suggested that the adjective does indeed form a separate word class in Chinese [40, 41], and I will take this view in subsequent analyses.

[8]The word *hěn* has been glossed as POS indicating positive degree. In other contexts, *hěn* can also mean 'very'; however, gradable adjectives require *hěn* for a positive interpretation; see [42, 43].

2.3.3 PP predicatives in Chinese

Locative expressions in Chinese require the word *zài*, as in (34). This word does not co-occur with *shì* except when the latter is used as a focus marker [38].

(34) *wǒ *(zài) chúfáng lǐ.*
1SG ZAI kitchen in
'I am in the kitchen.'

Zài has received multiple interpretations in the literature, including (lexical) verb [44], locative copula [45], so-called 'coverb' [46], preposition [47], and particle [48]. This is due to the fact that *zài* can appear in multiple constructions, including those in (35) (adapted from [49]).

(35) a. *wǒ zài.*
1SG ZAI
'I am (present).'

b. *wǒ zài shuì-jiào.*
1SG ZAI sleep(V)-sleep(N)
'I am sleeping.'

c. *wǒ zài chuáng-shàng.*
1SG ZAI bed-on
'I am on the bed.'

d. *wǒ zài chuáng-shàng shuì-jiào.*
1SG ZAI bed-on sleep(V)-sleep(N)
'I am sleeping on the bed.'

e. *wǒ shuì zài chuáng-shàng.*
1SG sleep(V) ZAI bed-on
'I am sleeping on the bed.'

A helpful discussion on the nature of *zài* can be found in [50]; considering the criteria for verbs in Chinese, Ross concludes that *zài* should be classed as a verb due to its ability to be negated and to undergo V-NEG-V reduplication:

(36) *wǒ bú zài chúfáng lǐ.*
1SG NEG ZAI kitchen in
'I am not in the kitchen.'

(37) *nǐ zài bú zài zhè-lǐ shàngxué?*
2SG ZAI NEG ZAI here-in go.to.school
'Do you go to school here?'

Further specification of the type of verb that *zài* is is challenging, since 'copula' does not seem to be a well-delimited category, as noted by Arche et al. [51]. They have nonetheless proposed a broad definition for copulas:

(38) A copular element is an element needed to define a predication structure.

Zài does seem to fulfil this role with regard to locative PPs.[9] Furthermore, *zài* contributes aspectual information (viz. IPFV) when combining with a VP, as in (35-b), or a locative PP, as in (35-c), suggesting that it resides in the I position of a c-structure rather than the V position. I will thus assume that *zài* can be considered a locative copula, and it will henceforth be glossed as LOC.

2.3.4 LFG analyses of Chinese copular constructions

In summary, Chinese copular constructions with an NP predicative require the copula *shì*, those with an AP predicative do not have a copula, and those with a PP predicative require the locative copula *zài*.

The existence of two different copulas suggests that they may not be entirely semantically empty, motivating double-tier analyses for NP and PP predicatives. Furthermore, since there is no subject–predicative agreement, the XCOMP analysis seems unjustified. A case can be made for a single-tier analysis for APs, which do not take a copula, although the absence of verbal morphology means that there is not significant evidence in favour of such an analysis.[10] Thus, I suggest that the two possible options for an f-structure analysis of copular constructions in Chinese would be (i) closed complement double-tier for NP, AP, and PP predicatives, or (ii) closed complement double-tier for NP and PP predicatives and single-tier for AP predicatives.

[9]There is disagreement about whether the complement of *zài* is an NP or a PP, related to whether locative words such as *lǐ* 'in' and *shàng* 'on' are nouns (e.g. [39]) or postpositions (e.g. [47]). I follow Li [52] in analysing such locative words as postpositions, although the analysis would not differ significantly were they to be analysed as nouns.

[10]Some adjectives may appear to take verbal inflection, such as the perfective aspect maker *le*:

2.4 Copular constructions in Malay

In comparison to research on Singaporean Chinese, there is even less work on Singaporean Malay. Much of the description of Malay copular constructions below is based on Indonesian, although I have also verified their relevance to Malay with native speaker informants. (*Note:* Examples in this section are adapted from [53] except where otherwise noted.)

2.4.1 NP predicatives in Malay

In prescribed rules of Standard Malay, NP predicatives can appear either with or without the copula *ialah* [54]:

(39) *Budi (ialah) guru.*
Budi COP teacher
'Budi is a teacher.'

When considering actual use of Malay, however, the copula *adalah* is also observed with NP complements [55, 56]. The two copulas do not seem to differ semantically [53], although a corpus study revealed that *ialah* appears much more frequently with NP predicatives than other types of predicatives (73.8% of occurrences) as compared to *adalah* (59.3% of occurrences) [55].

A final note about Malay NP predicatives is that they behave differently to other copular predicatives, as they require an inchoative copula (*menjadi* 'become') in the future tense (unlike AP and PP predicatives), as in (40) [56].

(40) *Dia akan *(menjadi) dokter.*
3SG FUT become doctor
'He/she will become a doctor.'

(i) *wǒ pàng-le.*
1SG fat-PFV
'I (have) put on weight.'

However, these appear to be inchoative verbs related to predicative adjectives via zero derivation, rather than adjectives themselves (see [41]).

While an analysis of this verb is outside the scope of the present study, it suggests that NPs have a greater tendency to occur with a copula than other types of complements in Malay (at least in some contexts).

2.4.2 AP predicatives in Malay

On the other hand, prescriptive grammars for Standard Malay suggest that AP predicatives can appear either with or without the copula *adalah* [54], as in (41), adapted from [57].

(41) *Ros (adalah) merah.*
rose COP red
'Roses are red.'

Actual use shows again that, like NPs, AP predicatives can appear with *ialah*, although much less frequently [55]. However, speakers seem to disagree on the acceptability of either *ialah* or *adalah* appearing with AP predicatives [53], thus it seems that AP predicatives strongly disfavour the presence of a copula.

2.4.3 PP predicatives in Malay

Locative expressions in Malay can optionally take an existential copula *ada* or *berada* [53]:

(42) *Budi (ada/berada) di rumah.*
Budi EXIST at home
'Budi is at home.'

Again, actual use reveals that both *adalah* and *ialah* are used with locative expressions [55]. This also applies for benefactive constructions, which (while not technically locative) also involve a preposition *untuk* 'for':

(43) *Ini (adalah/ialah) untuk Budi.*
PROX.DEF COP for Budi
'This is for Budi.'

2.4.4 LFG analyses of Malay copular constructions

In summary, copular constructions in Malay can occur without a copula, with *adalah*, or with *ialah*. Furthermore, PP predicatives can optionally take an existential copula *(ber)ada*.

The systematic optionality observed suggests that a single-tier analysis may be appropriate for all copular constructions in Malay. However, the existence of multiple copulas again suggests that they may be represented as different PRED values in a double-tier analysis. As in Chinese, the lack of subject–predicative agreement weakens the case for an XCOMP analysis. Thus, the two possible options for an f-structure analysis of copular constructions in Malay would be (i) closed complement double-tier for NP, AP, and PP predicatives, or (ii) single-tier for NP, AP, and PP predicatives.

2.5 Copular constructions in CSE

CSE, like SSE, has the copula *be*. Unlike SSE, however, CSE also permits a zero copula, exemplified in (44), adapted from [34].

(44) a. *Today* ∅ [$_{\text{NP}}$ *Saturday*].
b. *Tom* ∅ [$_{\text{AP}}$ *clever*].
c. *Tom* ∅ [$_{\text{PP}}$ *at home*].

A number of studies have examined the contexts in which the zero copula is licensed [15, 34, 58, 59]. In particular, empirical data from the 1970s suggests that the distribution of the zero copula was affected by speakers' L1 (Chinese or Malay)[11]—Platt [58] found that Malay speakers had the zero copula most consistently with PPs, followed by APs and then NPs, while the rates for Chinese speakers were mostly equal (although slightly higher for APs), as shown in Figure 2.2. In their analysis of Platt's data, Sharma and Rickford [45] suggest that the difference in distributions may be due to the influence of copular constructions in the L1s: "The greater absence of copulas in Malay may explain the higher frequencies of

zero copula among Malay-medium students. Similarly, the higher rate of omission with adjectival predicatives among Mandarin and Cantonese speakers learning English may derive from its parallel absence in their first languages." (p. 72)

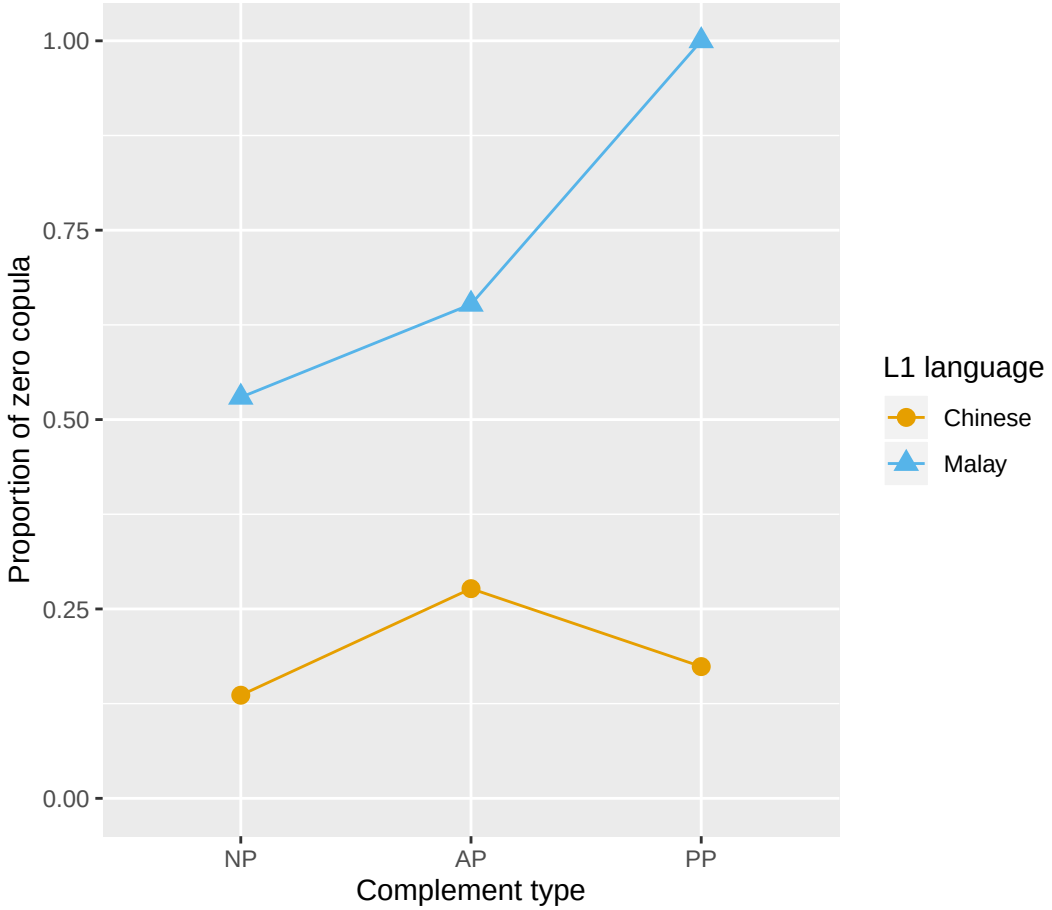

Figure 2.2: Zero copula distribution in CSE (drawn from [58])

While this study has been seminal in CSE sociolinguistics, certain issues remain regarding zero copula distribution. Firstly, the data were obtained through speaker recordings, thus there was no way to control for other factors such as adverbials and discourse particles, which contribute pragmatic information and are known to affect the acceptability of the zero copula [34, 59]. Secondly, the data were based on a relatively small sample of 3 Malay and 14 Chinese

[11] In Platt's study, "L1 language" was based on the language medium of the schools attended by the informants (as there were Chinese- and Malay-medium schools prior to 1987). Additionally, complements labelled "PP" only included locatives, and not temporals or other types of PP construction.

informants, thus the generalisability of the results is uncertain—for instance, the 100% rate of zero copula in PP complements for Malay speakers was based on only 5 tokens. Finally, and most significantly, much has changed in the sociolinguistic landscape of Singapore since 1979, when this study was published. The "Speak Mandarin Campaign" [60] launched in 1979 encouraged Chinese Singaporeans to speak Mandarin instead of other Chinese varieties to unify the ethnic Chinese population, resulting in greater linguistic homogeneity among the Chinese [61]. Furthermore, the introduction of the "national stream" in 1983 meant that all students were educated in English as their first language by 1987, with their MT as their second language [62]. Subsequent improvements in the quality and reach of education has meant that most current Singaporeans are effectively bilingual, and many would consider English to be their household language; thus, "L1" is no longer a helpful term to designate the substrate languages of CSE, and "MT" is more relevant as a label for the languages other than English that Singaporeans are educated in, whether or not this is actually their "first" or "household" language.

Thus, more research is necessary to isolate the effect of complement type, characterise the influence of the substrate languages on CSE, and determine its change and variation in the contemporary linguistic landscape of Singapore.

2.6 Summary

The descriptions and analyses of copular constructions in SSE, Chinese, Malay, and CSE have revealed different patterns and strategies for combining a subject with a non-verbal predicative, summarised in Table 2.1.

Language	**Copula**		
	NP	AP	PP
SSE	*be*	*be*	*be*
Chinese	*shì*	∅	*zài*
Malay	*adalah* ∼ *ialah* ∼ ∅	*adalah* ∼ *ialah* ∼ ∅	*(ber)ada* ∼ *adalah* ∼ *ialah* ∼ ∅
CSE	*be* ∼ ∅	*be* ∼ ∅	*be* ∼ ∅

Table 2.1: Summary of copulas used with various complements

In languages with multiple copula options, different complement types also differ in their amenability to having a zero copula. The patterns of relative acceptability for zero copular constructions is summarised in Table 2.2.

Language	**Relative acceptability of zero copula**
Chinese	AP $\gg$ NP = PP
Malay	AP > PP > NP
CSE–L1 Chinese (1970s) [58]	AP > NP $\approx$ PP
CSE–L1 Malay (1970s) [58]	PP ?> AP > NP

Table 2.2: Summary of relative acceptabilities of zero copular constructions

The trends in the relative acceptabilities of the zero copula provide evidence that CSE (as spoken in the 1970s) was influenced by speakers' L1s. To better understand copular constructions in contemporary CSE, and to develop a coherent analysis of CSE copular constructions in LFG, I designed and conducted a questionnaire study investigating the acceptability of copular constructions in CSE both with and without the copula; this is detailed in the next chapter.

I've come loaded with statistics, for I've noticed that a man can't prove anything without statistics. No man can.

— Mark Twain [63]

3

Distribution of Copular Constructions in CSE

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3.1 Introduction

The optionality of *be* in CSE provides an interesting case study into the nature of copular constructions and of syntactic transfer in language contact. To analyse

this phenomenon, an accurate description of the distribution of CSE copular constructions is crucial.

Empirical research conducted by Platt and Ho [15, 58] provides an important foundation for the study of CSE copular constructions. Nonetheless, their methodology has several limitations, including the lack of control over the types of constructions observed and the limited participant pool. The historical nature of the data also means that their description may not be relevant to contemporary CSE.

More recent characterisations of CSE copular constructions have taken a more theoretical approach, focusing on possible origins of copula optionality [34, 64] and syntactic principles underlying constructional variation [59]. While these have provided detailed syntactic and sociolinguistic analyses of CSE copular constructions, they are limited in relying solely on the linguist's intuitions, or possibly with a handful of informants. Juzek [65] has noted several issues with this approach:

(45) a. Judgement errors: speakers' judgements are subject to performance noise.

b. Quantisation errors: speakers' 'inherent' scales of grammaticality may not map perfectly onto the scales used.

c. Purpose biases: speakers may alter their behaviour to accommodate the experimenter.

d. Scale biases: the meaning of a scale may differ between speakers.

e. Differences in grammars: speakers of the same language may have slightly different grammars.

The relevance of these errors is immediately apparent when examining examples given in descriptions of CSE copular constructions. For example, (46) is given by both Chang [34] (p. 30) and Yu [59] (p. 11); Chang considers it to be perfectly acceptable, while Yu marks it with '*/?', indicating that he considers it at least somewhat unacceptable.

(46) *Tom ∅ clever.*

To minimise such errors, I designed a formal acceptability judgement task measuring participants' acceptability ratings of various copular constructions with different predicatives (NP, AP, PP) and with or without the copular verb. Based on Juzek's [65] analysis, I chose to use a 5-value gradient Likert scale, as it seems to provide the greatest informativity for untransformed data. The acceptabilities of the different constructions can thus serve as a detailed description of the distribution of CSE copular constructions.

The study was approved by the Central University Research Ethics Committee (reference number R65019/RE001).

3.2 Pilot study

Prior to conducting the main study, I first conducted a pilot to verify that the questionnaire was a suitable instrument to measure acceptability ratings for copular constructions. In particular, the pilot aimed to investigate whether copula-less sentences with or without discourse particles (e.g. *lah*), aspectual particles (e.g. *already*), and degree modifiers (e.g. *really*) would result in less skew, and hence be more amenable to further analysis. This is motivated by earlier work [15, 34] suggesting that such particles and modifiers increase the acceptability of copula-less sentences[12]; thus, it is possible to test which condition would result in a more centred distribution of ratings, avoiding potential floor or ceiling effects.

3.2.1 Participants

30 participants aged 18–25 (11 male, 19 female) participated in the pilot. All participants were native CSE speakers, and spoke Chinese as their MT. 23 participants attended, were attending, or were about to attend university.

[12]This may be due to such particles and modifiers being perceived as CSE features, thereby licensing yet more CSE features such as the zero copula. Further analysis of this phenomenon lies outside the scope of the present study, although Chang [34] and Yu [59] also propose other possible explanations.

3.2.2 Task

Participants completed a questionnaire in which they evaluated sentences on a 1–5 scale based on their naturalness (see Section A.2). They were told not to consider grammar rules they may have learnt in school, but to focus on their sense of what would be appropriate in ordinary relaxed conversation. Participants were also reminded that they would not be evaluated on the basis of their responses.

The first block comprised 10 practice sentences, including 5 sentences in SSE and 5 in CSE. This allowed participants to become familiar with the task, but also primed them to interpret sentences in a CSE context.

Subsequently, participants completed three blocks of 24 questions each. Each block contained 12 test sentences, 10 filler sentences, and 2 benchmark sentences. In particular, the 12 test sentences included 4 sentences with an NP complement, 4 with an AP complement, and 4 with a PP complement; these all involved a 3SG subject to control for the form of the copula (i.e. *is*). The test and filler sentences had both SSE and CSE versions (i.e. with and without the copula for test sentences), such that each participant would rate an equal number of SSE and CSE sentences. Which sentences were presented in CSE was counterbalanced across participants. One low and one high benchmark sentence were also included to verify that participants understood the task.

Participants were randomly assigned to either the plain or particle condition. In the latter, a particle or modifier was incorporated into each CSE sentence, while none were used in the former. The full list of sentences can be found in Section A.1.

After completing the three test blocks, participants filled in a set of demographic questions, including information about age, gender, education, language proficiency, and duration of living in Singapore. The full list of demographic questions can be found in Appendix B.

The questionnaire was conducted online using Qualtrics.

3.2.3 Results and discussion

I analysed the distributions of acceptability ratings of copula-less sentences for each complement type separately for the two conditions (Figure 3.1). The skewness for each combination of complement type and condition was also calculated (Table 3.1).

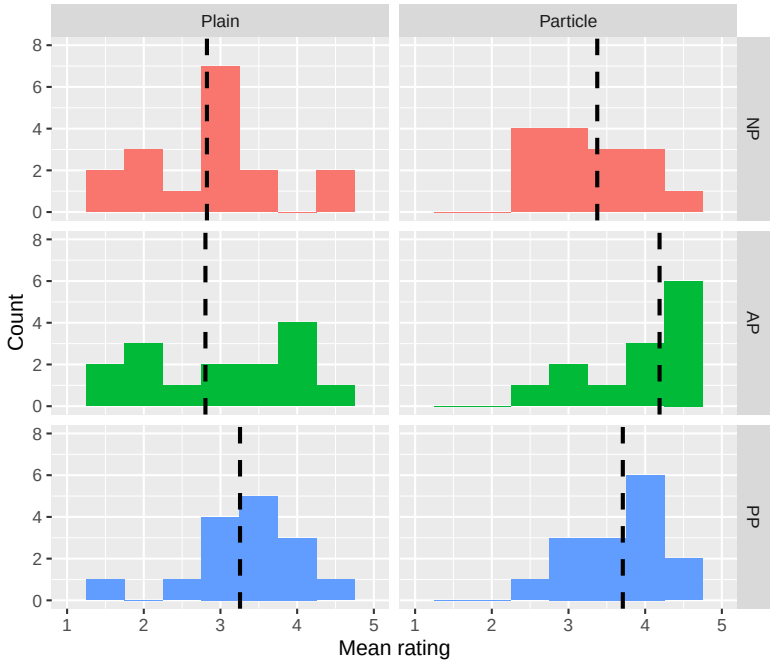

Figure 3.1: Histograms of participants' mean ratings for copula-less sentences by complement type and condition. Black dashed lines indicate means.

Table 3.1: Skewness of acceptability ratings for copula-less sentences by condition.

Complement type	Skewness	
	Plain	Particle
NP	0.207	−0.347
AP	0.276	−1.024
PP	−0.113	−0.401

The magnitudes of skewness in the particle condition were consistently greater than those in the plain condition. The large negative skews indicated a possible ceiling effect, which would render the results more difficult to interpret. As such, the plain condition was chosen for the main study.

A few other revisions were also made to the questionnaire. Two high benchmark sentence ("The dog became happier.", "Their cousin became slimmer.") received unexpectedly poor ratings (3.394 ± 1.345, 4.000 ± 1.199), thus they were replaced or modified ("The sky became dark.", "Their cousin became skinnier."). I had also erroneously included both "Your book is on the table." (test sentence) and "The book become on the table." (low benchmark sentence); the latter was thus replaced ("The box become on the floor."). These revised sentences are also marked in Section A.1, and the revised questionnaire was then used in the main study.

3.3 Main study

3.3.1 Participants

83 participants aged 18–25 (49 male, 33 female, 1 other) participated in the main study. All participants were native CSE speakers. As their MT, 62 spoke Chinese, 18 spoke Malay, and 3 spoke another language (English or Tamil). Only the Chinese- and Malay-speaking participants were used for the remainder of the analyses.

Out of the 80 included participants, 73 either attended, were attending, or were about to attend university, of whom 58 were Chinese-speaking and 14 were Malay-speaking. These proportions were not significantly different at $\alpha = .01$ ($\chi^2 = 3.855$, $p = .050$). Both the MT and education level distributions were similar to those of the overall 18–25 population in Singapore [61].

40 participants indicated that they could speak at least one variety other than English and their MT. Of these, 23 of the Chinese speakers could speak another Chinese variety (Cantonese, Hokkien, Teochew, or Henghua), and 8 of the Chinese speakers could speak Malay. 3 Malay speakers could also speak Mandarin. These data were not excluded as these multilingual speakers uniformly rated themselves as being more proficient and having more formal training in their MT than their third language.

3.3.2 Task

The task for this study was identical to that used in the pilot study, except that only the plain condition of the revised questionnaire was used, as mentioned in Section 3.2.3.

3.3.3 Data analysis

For each participant, mean ratings for each combination of complement type (NP, AP, PP) and sentence version (with or without copula) were computed to produce 6 composite scores per participant. These scores were used for subsequent analyses.

3.4 Results

3.4.1 Confirmatory analyses

I first analysed the distribution of participant data (Figure 3.2). Shapiro–Wilk tests suggested that some of the data were significantly non-normal (Table 3.2).

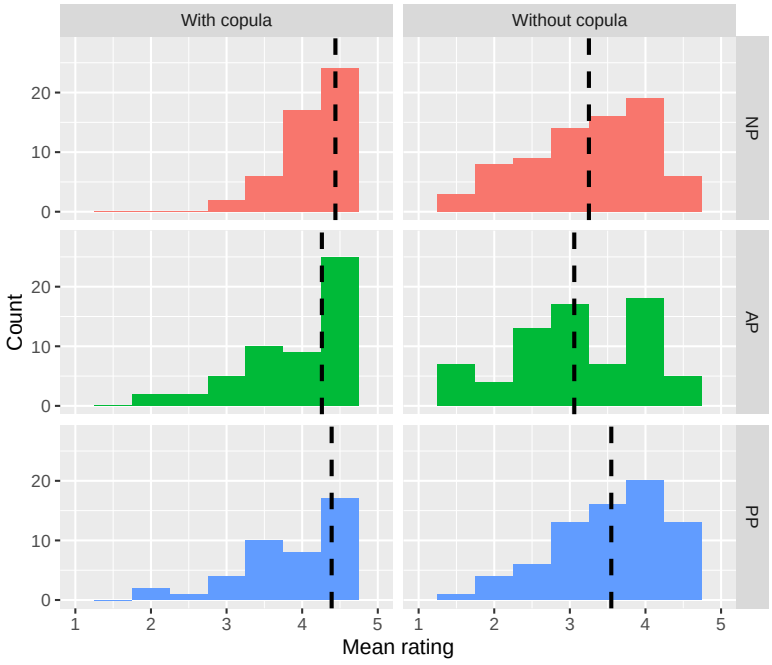

Figure 3.2: Histograms of participants' mean ratings by complement type and sentence version. Black dashed lines indicate means.

Table 3.2: Shapiro–Wilk test on mean ratings.

Complement type	**Sentence version**	**MT**	***W***	***df***	***p***
NP	With COP	C	.868	62	<.001***
		M	.961	18	.627
	Without COP	C	.973	62	.193
		M	.957	18	.536
AP	With COP	C	.842	62	<.001***
		M	.925	18	.158
	Without COP	C	.966	62	.079
		M	.949	18	.404
PP	With COP	C	.773	62	<.001***
		M	.865	18	.015*
	Without COP	C	.954	62	.020*
		M	.887	18	.034*

$^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$

This raised the issue of whether parametric analyses remained valid. Nonetheless, Levene's test suggested that error variance of mean ratings was equal across groups (Table 3.3).

Table 3.3: Levene's test of equality of error variances of mean ratings.

Complement type	**Sentence version**	***W***	***df***	***p***
NP	With COP	1.107	1, 78	.296
	Without COP	0.015	1, 78	.904
AP	With COP	1.972	1, 78	.164
	Without COP	1.154	1, 78	.286
PP	With COP	0.052	1, 78	.821
	Without COP	0.960	1, 78	.330

Earlier research [66] suggested that ANOVA is robust for non-normal data when variances are homogeneous; hence, ANOVA remained the analysis of choice for this study.

Thus, I conducted a $2 \times 2 \times 3$ mixed-design ANOVA on mean rating with a between-subjects factor of MT (Chinese or Malay), and within-subjects factors

of complement type (NP, AP, PP) and sentence version (with or without copula). Unsurprisingly, the results suggested a significant main effect of sentence version ($F(1, 78) = 54.504$, $p < .001$, $\eta_p^2 = .411$), with sentences including the copula having higher mean ratings (4.344 ± 0.168) than sentences without the copula (3.285 ± 0.236). (*Note:* Reported values indicate estimated marginal means and their 95% confidence intervals.)

There was also a significant main effect of complement type ($F(2, 156) = 10.646$, $p < .001$, $\eta_p^2 = .120$). Post-hoc pairwise comparisons (with Bonferroni corrections) suggested that NP sentences (3.822 ± 0.157; $p = .042$) and PP sentences (3.937 ± 0.159; $p < .001$) were rated more highly than AP sentences (3.685 ± 0.165), while there was no significant difference between NP and PP sentences ($p = .109$).

However, there was no significant main effect of MT ($F(1, 78) = 0.061$, $p = .806$), suggesting that mean ratings did not differ between Chinese speakers (3.833 ± 0.070) and Malay speakers (3.796 ± 0.131).

The crux of the hypotheses lay in the nature of the interaction effects. Interestingly, there was no significant interaction effect of any kind with MT as a factor. There was no interaction between language and complement type ($F(2, 156) = 2.136$, $p = .122$), or language and sentence version ($F(1, 78) = 0.814$, $p = .814$), or language and both complement type and sentence version ($F(2, 156) = 1.031$, $p = .359$).

Nonetheless, there was an interaction effect between complement type and sentence version ($F(2, 156) = 4.493$, $p = .013$; Figure 3.3). Post-hoc pairwise comparisons (with Bonferroni corrections) suggested that ratings were higher for sentences with the copula than copula-less sentences for all complement types (all $p < .001$). More interesting was the pattern of simple main effects of complement type for each sentence version. For sentences with the copula, there was no significant difference between NP and PP complements ($p = 1.000$) or AP and PP complements ($p = .125$), but there was a significant difference between NP and AP complements ($p = .042$), with NP complements being rated more highly.

This pattern of results was reversed for copula-less sentences, in which there was no significant difference between NP and AP complements ($p = .561$), but there was a significant difference between NP and PP complements ($p = .012$) and between AP and PP complements ($p = .001$), with PP complements being rated more highly in both cases (Table 3.4).

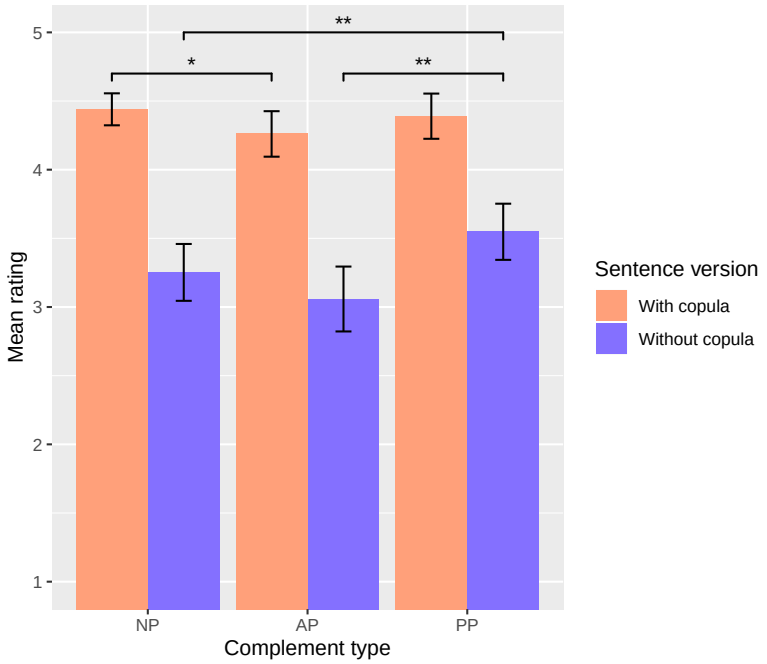

Figure 3.3: Mean ratings by complement type and sentence version. Error bars indicate confidence intervals. $^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$

Table 3.4: Post-hoc pairwise comparisons of complement type for each sentence version.

With COP				**Without COP**			
	NP	AP	PP		NP	AP	PP
NP	0	0.155*	0.039	NP	0	0.188	−0.270*
AP		0	−0.116	AP		0	−0.388**
PP			0	PP			0

Values indicate mean differences between the complement type in the row and the complement type in the column. $^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$

3.4.2 Exploratory analyses

Self-rated MT proficiency may moderate the pattern of acceptability ratings—for example, more proficient MT speakers may experience more syntactic trans-

fer, resulting in rating patterns that more closely resemble those of their MT. Hence, I conducted multiple regressions including MT proficiency as an independent variable.

To make such an analysis manageable (i.e. without complex three- and four-way interactions), I focused on copula-less sentences (as they exhibited the most variation in ratings), and conducted regressions for Chinese and Malay speakers separately. Dummy variables were used to handle the three-valued categorical variable of complement type. Thus, the independent variables entered into each regression were complement type (2 variables), MT proficiency, and complement type × MT proficiency (2 variables). A stepwise method was used to determine the variables which were predictive of acceptability ratings.

In the regression for Chinese speakers, complement type (both variables) was a significant predictor of acceptability ratings ($\beta_1 = -0.106$, $p = .002$; $\beta_2 = -0.191$, $p < .001$). Furthermore, MT proficiency was also a significant predictor ($\beta = 0.107$, $p < .001$). However, no interaction terms were included in the final model, suggesting that none were significant predictors of acceptability ratings.

Surprisingly, in the regression for Malay speakers, no variables were significant predictors of acceptability ratings (all $p > .19$ in a simultaneous regression). The absence of complement type as a significant predictor is particularly interesting as it differs from the pattern for Chinese speakers, yet there was no significant interaction between MT and complement type in the ANOVA above, suggesting that the observed difference in regression analyses was not large enough to be significant when considering speakers of both MTs.

3.5 Discussion

In this study, I found that sentences without the copula were rated more poorly than sentences with the copula, and sentences with AP complements were rated more poorly than sentences with NP or PP complements. This was mostly driven by disparities in the ratings for copula-less sentences, with copular sentences having generally high ratings overall (with a small difference between NP and

AP complements), while copula-less sentences with PP complements were rated as more natural than those with NP and AP complements. Unexpectedly, there were neither main nor interaction effects involving MT, suggesting that the same pattern of ratings was found across Chinese and Malay speakers. Furthermore, MT proficiency was not a factor in the pattern of acceptability ratings, other than slightly raising the general acceptability for copula-less sentences for Chinese speakers.

These results suggest that MT has no effect whatsoever on acceptability ratings of copular constructions in CSE speakers, even taking MT proficiency into account. This contrasts with earlier work from Platt [58], which suggests that there were greater differences in the copula use of Chinese- and Malay-speaking Singaporeans in the 1970s. In comparison, the data in the present study suggest that much of the difference has been eliminated in contemporary CSE, indicating levelling of variability. Thus, the most plausible explanation for the absence of any MT effect is that the continued interactions between Chinese and Malay speakers, as well as increased standardisation and amount of education, have resulted in the levelling of syntactic variation between the two groups.

Focusing on the pattern of acceptability ratings across different complement types, it seems that PP complements are most acceptable without a copula, followed by NP and then AP (which may not differ significantly from each other). One possible (but highly speculative) explanation for this pattern is that the preposition in the PP is gaining some 'copular' function—i.e. linking the subject with a (spatiotemporal) position—perhaps due to the influence of the Chinese locative copula *zài*. A further observation is that this pattern seems to differ from that of the particle condition in the pilot (see Figure 3.1), in which particles seem to license copula-less sentences with an AP complement, resulting in highest ratings for AP sentences; confirmation of this effect may necessitate a subsequent study with presence or absence of particles as a within-subjects factor. Additionally, the pattern of acceptabilities under the particle condition more closely resembles the trends observed in Platt's [58] work from the 1970s, albeit

without any difference between Chinese and Malay speakers; it is plausible that the presence of a particle is relatively common in natural CSE speech, resulting in the AP > PP > NP pattern appearing for zero copula rates in recorded speech. The various factors governing zero copula acceptability thus seem to be interactive rather than additive; as such, caution should be taken when interpreting the pattern of results observed across different complements, as there may be other (e.g. semantic, pragmatic, or prosodic) factors unaccounted for. Further analyses are required to determine the underlying cause for the pattern.

3.5.1 Limitations and suggestions

One inadvertent limitation of the main study is participant distribution. The participant pool was imbalanced with regard to MT, and there was also a high proportion of university students. The latter observation is particularly unfortunate as individuals of lower socioeconomic status tend to exhibit more basilectal features in their language use [58], which may have been relevant in this study. Nonetheless, the relative proportions of Malay-speaking and Chinese-speaking respondents are comparable to those of ethnic Malay and Chinese Singaporeans aged 18–25, and a vast majority of this age range has attended, is attending, or is about to attend university [61]. Furthermore, the participants were recruited by word of mouth, without specific soliciting of participants from a particular MT or socioeconomic background (to avoid demand characteristics). Future studies using a different recruitment method may obviate this issue; however, the robustness of ANOVA to unequal groups [66] suggests that this may not be particularly problematic.

Another issue that arose in the course of data analysis is that SSE sentences may have exhibited a ceiling effect. All three complement types had a mean rating of > 4 and a skew of < -1, suggesting that acceptability for these sentences may be almost at maximum, resulting in difficult result interpretation due to limited variation. However, this result is unsurprising given that SSE is the primary medium of education in schools, and is often considered the prestigious or 'correct' variety, thus there is little reason for participants to score SSE sentences

poorly (other than possible 'stiltedness' if they felt they were unlikely to use such sentences in ordinary CSE speech). Nonetheless, future research in this area may employ alternative study designs focusing exclusively on CSE sentences, which may eliminate this problem.

Finally, only 3SG subjects were used as the focus was on the effect of complement types, thus the results may not be generalisable to other types of subjects. Research by Ho and Platt [15] suggests that the preceding environment does have an effect on copula use, with 1SG and 3SG pronouns promoting copula use, and other pronouns and NPs promoting a zero copula. The use of both 3SG pronominal and NP subjects in this study seems to cover both directions of influence of the preceding environment, although a broader study investigating the effects of other subjects may provide a more comprehensive description of copula optionality in CSE.

3.6 Summary

MT and MT proficiency do not affect the acceptability of copula-less sentences in CSE, but complement type does (with a general pattern of PP $>$ NP $\approx$ AP). This has interesting consequences for the analysis of copular constructions in CSE, which will be discussed in the following chapter.

Language is a wild animal ... rough, ambiguous, inconsistent in countless ways. But that just makes it all the more tempting to tame it.

— Lane Greene [67]

4

Contact, Change, and Copular Constructions

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4.1 Overview

Early research into the syntax–sociolinguistics interface of CSE has suggested that its copular construction distribution is due to influence from Chinese and Malay [58]; this is exemplified by the different patterns of zero copula occurrence (Table 2.2). Subsequent work comparing copular construction patterns in Chinese, Malay, and CSE seems to support this claim (e.g. [45, 64, 68]). On the other hand, the present study showed that levelling has occurred between contemporary Chinese and Malay speakers, such that there is no longer any significant difference in their acceptability ratings for various CSE copular constructions.

This chapter seeks to provide a sociolinguistic and syntactic account of the transfer and levelling of copular constructions in CSE, considering Singapore's changing linguistic environment and characteristics of the lexifier and substrates.

4.2 Characterisation of zero copula transfer

Copula optionality in CSE seems to result from substrate influence, as (contrastingly) the copula is obligatory in equivalent English contexts; this also occurs in many English-based creoles [69]. Poplack and Levey [70] proposed several conditions to determine whether a particular change is indeed contact-induced:

(47) a. Situate the proposed change with respect to its host linguistic system.
b. Identify a presumed source of the change.
c. Locate structural features shared by the source and recipient languages.
d. Prove that the proposed interference features were not present in the pre-contact variety.
e. Prove that the proposed interference features were present in the source variety prior to contact.
f. Rule out (or situate) internal motivations.

Steps (a–c) are described in Chapter 2, and together they suggest that Chinese and Malay copular constructions have influenced copular constructions in CSE. Steps (d–e) are somewhat harder to demonstrate, as it is difficult to accurately characterise the grammars of the lexifier and substrates within the particular historical and geographical context [31]. Nonetheless, this claim seems plausible when considering descriptions of similar varieties, which suggest that zero copular constructions are disallowed in English but are possible in Chinese and Malay varieties. Finally, the nascence of CSE occurred in a multilingual context in which English was being acquired as a second (or third) language, suggesting that external motivations were probably significant in much of the early development of CSE.

Additionally, the *kind* of contact-induced change involved appears to be 'transfer', i.e. "the incorporation of a grammatical property into one language from the other." [71] (p. 3) In the context of contact-induced change, van Coetsem [72] distinguished between two types of transfer, depending on which language the agents of transfer are more fluent in. In 'borrowing', the transfer occurs under the agency of recipient language speakers, while in 'imposition', it occurs under the agency of source language speakers. The latter appears to be relevant in this case, as CSE developed via speakers who were not fluent in English.

Furthermore, the transfer is negative, as the features of the L1 and L2 differed. In cases of negative transfer with source language agentivity, van Coetsem [72] suggested that the main mechanism is adaptation (modification of the materials of the recipient language to match the structure of the source language). In CSE copular constructions, the lexical item used (i.e. *be*) does originates from English, and its behaviour seems to be influenced by the structure of Chinese and Malay languages, both of which exhibit copular optionality or absence in copular constructions.

4.3 Explanation of zero copula transfer

One critical debate in contact linguistics is the validity of 'syntactic transfer' as a phenomenon. Some linguists have argued that "anything can be transferred from any language to any other language" [73] (p. 14; see also [74]), while others have instead suggested that syntax is relatively resistant to external influence, and that cases of apparent syntactic transfer are more likely due to lexical or pragmatic influence, followed by (internally motivated) syntactic change (e.g. [75–77]).

Earlier analyses of copular optionality in CSE have attempted to explain this apparent syntactic transfer via semantic and pragmatic factors. Chang [34] suggested that the copula became a marker of emphasis, focus, or contrast in CSE, under the influence of the emphatic *shì* in Mandarin (and its equivalent in other Chinese varieties). Yu [59] formalised this proposal by suggesting that the CSE copula is employed to anchor sentences to an actual-world reference

point (e.g. via spatiotemporal location), and that contexts in which this is not required (e.g. when time is marked elsewhere in the sentence by tense or aspect) permit a zero copular construction.

While these explanations may describe aspects of the contemporary distribution of copular constructions, I propose that they are insufficient as explanations of the transfer of zero copular constructions in CSE. This is supported by evidence from the interlanguage of English as a second language (ESL) learners, the distribution of copular constructions in the substrate languages, and the ratings of copular constructions with an overt verb.

Firstly, research on ESL learners has demonstrated that copula omission often occurs in the production of L1 Chinese and Malay speakers (e.g. [78] for Chinese, [79] for Malay). This occurs even in written pieces (i.e. in a formal, high register setting) and without the imbuing of additional pragmatic meaning; the latter observation is supported by the fact that copula omission often occurs even for basic declarative statements without particular information-structural marking. Furthermore, ESL learners perform poorly in a grammaticality judgement task requiring participants to correctly indicate when the copula has been erroneously omitted in Standard English sentences [80]; the absence of any discourse context suggests that their performance cannot be solely attributable to pragmatic factors. Since the emergence of CSE would also have occurred among what can effectively be considered 'ESL learners', it is plausible that pragmatics were not the only factor involved in the transfer of zero copular constructions.

Secondly, the aforementioned explanations relying on the copula's pragmatic functions only refer to the use of the copula in Chinese. The fact that zero copular constructions are also found in the CSE of Malay speakers (even in Platt's [58] data from the 1970s) suggests that some transfer must have occurred from Malay, in which the copula does not have the same pragmatic functions as in Chinese. Amir Rashad [57] suggested that register is the key pragmatic factor governing the use of copulas in Malay: they occurs more often in higher registers such as formal speech and in writing, but are more often absent in lower registers and

casual speech. As noted above, L1 Malay speakers omit the copula even in formal writing, suggesting that zero copular constructions in the CSE of Malay speakers cannot be solely due to pragmatics.

Finally, the high ratings of sentences employing an overt copula suggest that they are acceptable even without additional pragmatic context licensing a focusing or emphatic interpretation. My native speaker's intuition is that *ceteris paribus*, there is little difference in meaning between equivalent copular constructions with or without the copula. Further research probing speakers' interpretations of different copular constructions or controlling for context may help to determine if this claim is valid for most CSE speakers.

Thus, I argue that pragmatic transfer cannot completely account for the grammaticality of zero copular constructions in CSE. Rather, this seems to be a genuine case of syntactic transfer.

4.4 Mechanism of zero copula transfer

One proposed mechanism of syntactic transfer is relexification, or the combination of a phonetic string from the lexifier with the syntactic and semantic features of a lexical entry from the substrate to produce a new lexical entry [81]. Bao [82] qualified this by suggesting that "substratum transfer involves an entire grammatical subsystem" (p. 258), which in this case would be the system of copular constructions. This can explain the use of the English word *be* in its copular function, with the possibility of zero copular constructions drawn from Chinese and Malay.

This theory relates to the LFG analysis of zero copula transfer. Recalling Chapter 2, the possible f-structure analyses for various copular constructions in SSE, Chinese, and Malay are as summarised in Table 4.1.

Language	**Possible analysis 1**	**Possible analysis 2**
SSE	NP: PREDLINK AP: PREDLINK PP: PREDLINK	
Chinese	NP: PREDLINK AP: PREDLINK PP: PREDLINK	NP: PREDLINK AP: single-tier PP: PREDLINK
Malay	NP: PREDLINK AP: PREDLINK PP: PREDLINK	NP: single-tier AP: single-tier PP: single-tier

Table 4.1: Possible f-structure analyses for various copular constructions

The most parsimonious analysis for this transfer involves a common f-structure across all complement types and languages. This means that copula optionality can transfer by the simple modification of a phrase structure rule, without requiring large-scale reanalysis involving e.g. duplication of all lexical items that can be predicative, which would be required in the shift from a PREDLINK analysis to a single-tier analysis.

Thus, the evidence from negative transfer in CSE supports a closed complement double-tier analysis. The relevant imposition can be modelled as the modification of a phrase structure rule for copular constructions, incorporating an empty node with an optional 'null-be' predicator, as in (48).[13] The optionality of this equation suggests that the empty node contributes 'null-be' only when VP does not contribute a PRED value, i.e. when there is no V, as in copular constructions (see [26], pp. 156–157).

(48) $$\text{I'} \rightarrow \{ \underset{\uparrow = \downarrow}{\text{I}} \mid \underset{\substack{((\uparrow \text{PRED}) = \text{`null-be}\langle \text{SUBJ, PREDLINK} \rangle\text{'}) \\ ((\uparrow \text{TENSE}) = \text{PRS})}}{\epsilon} \} \underset{\uparrow = \downarrow}{\text{VP}}$$

[13]The tense equation is also optional, as the default reading of a copular construction without a copula is in the present tense, while this can be overridden if another constituent contributes tense information, such as in *He yesterday happy* 'He was happy yesterday'.

Further support for this hypothesis comes from the observation that the copular alternation has the same overt form across different complement types (i.e. *be* $\sim \varnothing$), despite the fact that both substrates have multiple copulas (2 in Chinese, at least 3 in Malay). Pre-existing f-structure commonality may explain how these disparate systems can map onto one system in contemporary CSE.

Under this interpretation, the data support a unified analysis for copular constructions both within a language and across languages, with the PREDLINK analysis chosen as the one with the most explanatory power; this aligns with earlier work by Attia [27], and provides the most coherent explanation for the mechanism of zero copula transfer.

4.5 Levelling of zero copular constructions

Comparing the results of Platt's [58] study of CSE in the 1970s with the present study, it is evident that some change has occurred in the CSE spoken by Chinese and Malay speakers. This can be visualised by approximating the proportion of zero copular constructions in contemporary CSE using the formula in (49).

(49) $$\text{Rate}_{\varnothing} \approx \frac{\text{Average ratings}_{\varnothing}}{\text{Average ratings}_{\varnothing} + \text{Average ratings}_{\text{COP}}}$$

Plotting these data over those from Platt demonstrates that the proportion of zero copular constructions in contemporary CSE lies midway between the L1 Chinese and L1 Malay speakers from Platt's study (Figure 4.1). Incorporation of the data from the particle condition of the pilot further shows that including particles and modifiers results in a trend more similar to those found by Platt.

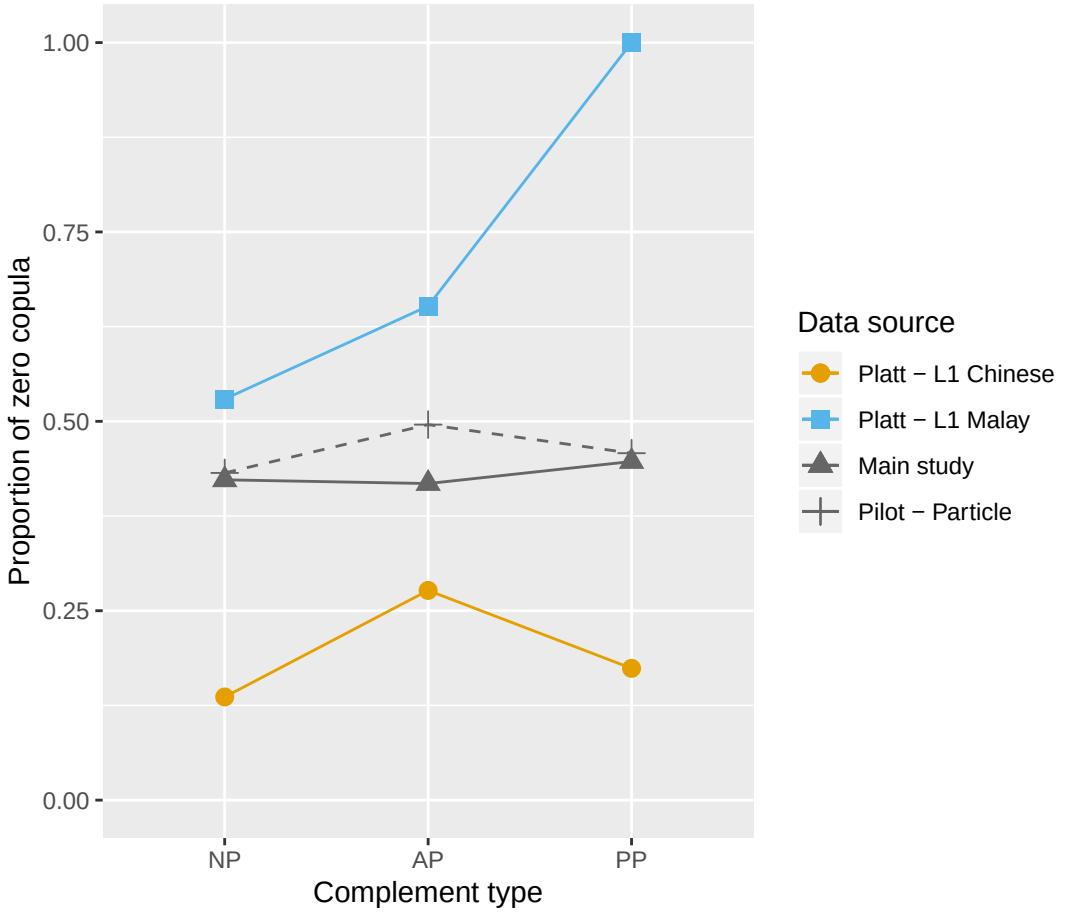

Figure 4.1: Zero copula distributions in CSE, including data from [58] and the present study

This suggests that copular constructions have been levelled between Chinese and Malay speakers, resulting in a single distribution of copular constructions in CSE regardless of MT. Siegel [83] suggested that this may occur due to vernacularisation, or the use of varieties of the lexifier "as the main mode of communication between speakers of different substrate languages" (p. 132), in conjunction with speakers considering themselves as sharing a common identity. Indeed, the mixing between different ethnic communities (and thus speech communities) and the adoption of English as the medium of education since Platt's study may have promoted the vernacularisation of English, and thereby the levelling of CSE, at least with regard to this syntactic phenomenon. A broader survey of the linguistic features of CSE as spoken by speakers of different MTs would be necessary to accurately describe the overall extent of levelling.

4.6 Summary

I propose that the phenomenon of copula optionality in CSE is due to syntactic transfer from Chinese and Malay via relexification, such that the most parsimonious f-structure analysis involves closed complement double-tier analyses for all complement types across all relevant languages, such that the transfer of optionality involves the simple modification of a phrase structure rule. There has been subsequent levelling between the varieties of CSE spoken by Chinese and Malay speakers, resulting in contemporary CSE lacking any MT-related difference in copular construction distribution.

[T]o lose one's mother tongue is like losing a part of yourself.

— Helena Drysdale [84]

5 Conclusion

The copular construction in CSE lies at the syntax–sociolinguistics interface, and a comprehensive description of the emergence of copula optionality requires input from grammatical, sociological, and historical perspectives [85]. Integrating these facets in this project, I have analysed copular constructions in different languages, acceptability ratings for CSE copular constructions, and the emergence of copula optionality in contemporary CSE. These data suggest that copula optionality in CSE can be traced back to syntactic transfer from the substrates, facilitated by a common double-tier closed complement f-structure, followed by subsequent levelling.

One key contribution of this work is the suggestion that copular constructions in CSE and its lexifier and substrate languages should have a unified analysis involving a closed complement double-tier f-structure, following Attia [27]. As zero copulas frequently occur in creoles [69], an LFG analysis of copular constructions in these instances of language contact may contribute further evidence regarding copulas in contact varieties.

This study also demonstrates the utility of analysing cases of language contact under the LFG framework, as syntactic transfer may illuminate f-structure analyses, which should reflect functional commonalities across languages. There is currently little work in sociolinguistics under the LFG framework; however,

Börjars and Vincent [86] have noted that the separation of different structural dimensions in the LFG architecture lends itself naturally to descriptions of language change, since changes in one level of structure may occur at a different pace to changes in other levels. This architectural feature is also relevant to descriptions of synchronic variation, since variation along one dimension may not necessitate variation along another—as this project has demonstrated with regard to copular constructions, where c-structure variation can occur without f-structure variation.

The scope of the present study entails certain limitations that may affect the generalisability of the results. Firstly, the lack of grammars or corpora of Chinese and Malay as spoken in Singapore means that it is difficult to fully ascertain the validity of the grammatical analyses of cross-linguistic copular constructions in the Singapore context. There has been some research into the Chinese and Malay varieties spoken in Singapore (e.g. [32, 87]), but more comprehensive descriptions—especially ones that do not take other countries' standard varieties as a yardstick—are still necessary. Corpora of spoken Chinese and Malay are also critical to understanding the registers and varieties of these languages, not just standard varieties that appear in writing or broadcasts. The present study has demonstrated that copula optionality in CSE is best represented by a continuum rather than a binary division, with other semantic and pragmatic factors affecting the acceptabilities of particular constructions. The same is likely to be true of copular constructions in Chinese and Malay, and further research focusing on this aspect of the grammars of Singaporean Chinese and Malay would illuminate the nuances involved.

Secondly, while a questionnaire study is effective in permitting the control of other unrelated variables, it is not necessarily ecologically valid. This was demonstrated in the pilot study, in which the particle condition (which perhaps more accurately reflects the everyday use of CSE) displayed a different pattern of results than the plain condition. In his research, Chang [34] has proposed a number of factors which may affect zero copula acceptability; these should

be tested in a multifactorial design to determine their relative contributions and interactions.

Nonetheless, this study has proposed a novel approach to understanding issues that lie at the intersection of syntax and sociolinguistics, and further research in this domain will help to clarify related concepts and methodologies. The diversity of approaches within linguistics is its strength, and the field will indubitably benefit from research that meaningfully integrates and combines these approaches to understand the phenomenon of language.

Le savant n'est pas l'homme qui fournit les vraies réponses ; c'est celui qui pose les vraies questions.

— Claude Lévi-Strauss [88]

A Appendix: Questionnaire

This appendix contains the list of sentences used in the questionnaire study, as well as the scale used for ratings (see Chapter 3).

A.1 Questionnaire sentences

Underlined words indicate alternations between SSE versions (before the slash) and CSE versions (after the slash) of the sentence. The words in parentheses indicate CSE discourse particles, aspectual particles, and degree modifiers, which were inserted into copula-less sentences in the particle condition of the pilot study. Asterisks indicate sentences that were revised after the pilot study.

No.	Type	Sentence
A.	Practice – CSE	He cannot anyhow say people.
B.	Practice – CSE	She go home already.
C.	Practice – CSE	I don't have ticket.
D.	Practice – CSE	They got time to finish one.
E.	Practice – CSE	We sit here talk.
F.	Practice – SSE	Her daughter is very friendly.
G.	Practice – SSE	They will wipe the table.
H.	Practice – SSE	My uncle has finished eating.
I.	Practice – SSE	The fuel in the tank is enough.
J.	Practice – SSE	The rabbit has too much food.
1.	Test – NP	John <u>is / ∅</u> a doctor (already).

2.	Test – NP	Lucy is / ∅ the English teacher (lah).
3.	Test – NP	My friend is / ∅ a chef (sia).
4.	Test – NP	His cousin is / ∅ the older one (lah).
5.	Test – NP	The apple is / ∅ one dollar (sia).
6.	Test – NP	Now is / ∅ two o'clock (already).
7.	Test – NP	Sally is / ∅ (really) a baker.
8.	Test – NP	James is / ∅ the car mechanic (lah).
9.	Test – NP	His wife is / ∅ (really) an actress.
10.	Test – NP	Her boss is / ∅ the taller one (lah).
11.	Test – NP	That one is / ∅ eighty cents (lah).
12.	Test – NP	Tomorrow is / ∅ Saturday (already).
13.	Test – AP	Marcus is / ∅ (very) good.
14.	Test – AP	Ann is / ∅ (quite) clever.
15.	Test – AP	The kid is / ∅ careless (sia).
16.	Test – AP	The camp is / ∅ (quite) tiring.
17.	Test – AP	Their shop is / ∅ (quite) far.
18.	Test – AP	Your dog is / ∅ big (sia).
19.	Test – AP	Samuel is / ∅ happy (already).
20.	Test – AP	Kate is / ∅ (quite) pretty.
21.	Test – AP	Their uncle is / ∅ (quite) old.
22.	Test – AP	The bus is / ∅ fast (sia).
23.	Test – AP	The supermarket is / ∅ open (already).
24.	Test – AP	Your flat is / ∅ (quite) nice.
25.	Test – PP	Tom is / ∅ at home (already).
26.	Test – PP	The meeting is / ∅ at noon (lah).
27.	Test – PP	Her toy is / ∅ in the box (already).
28.	Test – PP	Breakfast is / ∅ in the morning (lah).
29.	Test – PP	Your book is / ∅ (really) on the table.
30.	Test – PP	Our trip is / ∅ on Tuesday (lah).
31.	Test – PP	Mary is / ∅ at work (lah).
32.	Test – PP	Our flight is / ∅ (only) at seven.
33.	Test – PP	Food is / ∅ in the kitchen (already).
34.	Test – PP	The show is / ∅ in twenty minutes (lah).
35.	Test – PP	My robot is / ∅ on the floor (sia).
36.	Test – PP	Their wedding is / ∅ on a weekend (sia).
37.	Filler	Yesterday I went / go there.
38.	Filler	In the sixties he was / is a policeman.
39.	Filler	Ten years ago, the houses were / are very big.
40.	Filler	The exam last Tuesday was / is very hard.
41.	Filler	Just now they went / go to the shop.

42.	Filler	You thought your bags were / are lost.
43.	Filler	She said that you took / take her book.
44.	Filler	My sister found / find a job two days ago.
45.	Filler	Last Monday they came / come twice.
46.	Filler	She ate / eat the cake last night.
47.	Filler	I met / meet your sister at the wedding last year.
48.	Filler	Mark dug / dig a hole so he can plant vegetables now.
49.	Filler	Before this he stayed / stay at his friend's place.
50.	Filler	I tried / try to do it myself last week.
51.	Filler	Henry packed / pack for his trip this morning.
52.	Filler	He brushed / brush his hair when he woke up.
53.	Filler	My brother walked / walk the dog yesterday.
54.	Filler	Jane pushed / push me first.
55.	Filler	When I was young, I wanted / want to be a doctor.
56.	Filler	Last time Sarah hated / hate carrots.
57.	Filler	This blue shirt faded / fade in the wash.
58.	Filler	His mother painted / paint the wall white the first time.
59.	Filler	They ended / end school last week.
60.	Filler	I folded / fold the clothes just now.
61.	Filler	His wife brought / bring cake for the last party.
62.	Filler	Your friend told / tell me what happened.
63.	Filler	They sold / sell their house last month.
64.	Filler	Their father bought / buy the house three years ago.
65.	Filler	Her cousin taught / teach primary school in the past.
66.	Filler	The food felt / feel very cold before I put it in the oven.
67.	Benchmark – Low	You become in the house.
68.	Benchmark – Low	She become at the office.
69.	Benchmark – Low	The book become on the table.
		*The box become on the floor.
70.	Benchmark – High	He became a teacher.
71.	Benchmark – High	Their cousin became slimmer.
		*Their cousin became skinnier.
72.	Benchmark – High	The dog became happier.
		*The sky became dark.

A.2 Rating scale

Rating	Description
1	This isn't a good sentence. It's impossible to understand. I would not use this sentence. No speaker from Singapore would use this sentence.
2	This sentence is better than one I'd rate as 1, but it's still very bad. It's very difficult to understand. Most people from Singapore would definitely not say this.
3	This sentence is not good enough to be rated 4, but it's better than a 2. It's difficult to understand. Somebody from Singapore might use it, but I'd be unlikely to use it myself.
4	This sentence is less than perfect. It sounds a bit strange to me. Other people from Singapore might use it, but I'm not totally comfortable with it.
5	This sentence sounds fine. I'd use it without hesitation, and so would other people from Singapore.

Language is a city to the building of which every human being brought a stone.

— Ralph Waldo Emerson [89]

B

Appendix: Demographic Questions

This appendix contains the demographic questions used in the questionnaire study (see Chapter 3). Some of the questions required participants to select an option; in these cases, the possible options are listed in brackets.

No.	Question
1.	Age [18, 19, 20, 21, 22, 23, 24, 25]
2.	Gender [Male, Female, Other, Prefer not to say]
3.	Which university are you attending / have you attended / are you about to attend? (Type "NA" if you are not intending to attend university)
4.	Which junior college / polytechnic / centralised institute did you attend?
5.	What is your mother tongue?
6.	How would you rate your ability in your mother tongue? (1: limited comprehension, 5: fluent and can communicate easily) [1, 2, 3, 4, 5]
7.	How many years of formal learning have you had in your mother tongue?
8.	Do you speak any other languages / dialects? If so, which ones?
9.	How would you rate your ability in these other languages / dialects? (1: limited comprehension, 5: fluent and can communicate easily) [1, 2, 3, 4, 5]
10.	How many years of formal learning have you had in these other languages / dialects?
11.	Were you born in Singapore? [Yes, No]
12.	How long have you lived / did you live in Singapore?
13.	Have you lived in any other countries? If so, when and for how long?

If you had felt yourself sufficient, it would have been a proof that you were not.

— Aslan [90]

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