Routledge Studies in Sociolinguistics

CROSSLINGUISTIC INFLUENCE IN SINGAPORE ENGLISH

LINGUISTIC AND SOCIAL ASPECTS

Ming Chew Teo

Crosslinguistic Influence in Singapore English

In a social setting where speakers with several languages interact extensively, a major source of variation in Colloquial Singapore English comes from the complex interaction between crosslinguistic influences and various social and linguistic factors. By unifying both social and linguistic aspects of the phenomenon through the use of multivariate analyses like logistic regressions and Poisson regressions, this book represents a novel approach to the study of crosslinguistic influence in Colloquial Singapore English. As multivariate analyses provide us with information regarding the relative strengths of each social and linguistic factor, they are useful tools that allow us to have a more nuanced understanding of crosslinguistic influence in contact situations. Linguistic features from a variety of linguistic domains – morphology, semantics, and discourse – will be quantified, and statistical analyses will be run in R to determine the degree to which various social and linguistic factors affect the extent of crosslinguistic influence. Well-known Singlish features like the optionality of past tense and plural marking, the unique meanings of *already*, *got*, and *one*, and discourse particles *lah*, *leh*, and *lor*, are analyzed using this approach. The statistical modeling of these features is a first step towards creating a unified framework to understanding crosslinguistic influence.

Ming Chew Teo is an assistant professor of Chinese in the Modern and Classical Languages and Literatures Department at Virginia Tech. He is interested in the study of language contact and has published several articles on Singapore Southern Min and Colloquial Singapore English.

Routledge Studies in Sociolinguistics

Emerging Hispanicized English in the *Nuevo* New South
Language Variation in a Triethnic Community
Erin Callahan

Racialization and Language
Interdisciplinary Perspectives from Peru
Edited by Michele Back and Virginia Zavala

Discourses of Identity in Liminal Places and Spaces
Edited by Roberta Piazza

Language Policy in Superdiverse Indonesia
Subhan Zein

Re-positioning Accent Attitude in the Global Englishes Paradigm
A Critical Phenomenological Case Study in the Chinese Context
Fan (Gabriel) Fang

Revivals, Nationalism, and Linguistic Discrimination
Threatening Languages
Kara Fleming and Umberto Ansaldo

Crosslinguistic Influence in Singapore English
Linguistic and Social Aspects
Ming Chew Teo

Chinese-English Interpreting and Intercultural Communication
Jim Hlavac and Zhichang Xu

Ageing Identities and Women's Everyday Talk in a Hair Salon
Rachel Heinrichsmeier

For more information about this series, please visit www.routledge.com/Routledge-Studies-in-Sociolinguistics/book-series/RSSL

Crosslinguistic Influence in Singapore English

Linguistic and Social Aspects

Ming Chew Teo

Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First published 2020
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
52 Vanderbilt Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data
Names: Teo, Ming Chew, author.
Title: Crosslinguistic influence in Singapore English: linguistic and social aspects/Ming Chew Teo.
Description: New York, NY: Routledge, 2020. | Series: Routledge studies in sociolinguistics | Includes bibliographical references and index.
Identifiers: LCCN 2019044283 (print) | LCCN 2019044284 (ebook) | ISBN 9781138614864 (hardback) | ISBN 9780429463853 (ebook)
Subjects: LCSH: English language—Singapore—Foreign elements. | English language—Dialects—Singapore. | English language—Social aspects—Singapore.
Classification: LCC PE3502.S5 T46 2020 (print) | LCC PE3502.S5 (ebook) | DDC 420/.95957—dc23
LC record available at https://lccn.loc.gov/2019044283
LC ebook record available at https://lccn.loc.gov/2019044284

ISBN: 978-1-138-61486-4 (hbk)
ISBN: 978-0-429-46385-3 (ebk)

Typeset in Times New Roman
by Apex CoVantage, LLC

Contents

Figures

Tables

Abbreviations

1	first person
2	second person
3	third person
CFM	contrastive focus marker
CL	nominal classifier
COM	comparative marker
CRS	currently relevant state marker
DET	determiner
DIS	discourse particle
EMP	emphatic marker
EX	exclamative
EXP	experiential marker
EXST	existential marker
LOC	locative case
NEG	negation
NMM	nominal modification marker
NMZ	nominalizer
PFV	perfective marker
PL	plural
PNG	person, number, and gender agreement marker
POSS	possessive marker
PRS	present tense
PST	past tense
REA	realis modality marker
SG	singular

1 Introduction

Crosslinguistic influence in Singapore English

Some things that a visitor to the tropical island of Singapore definitely will not miss are the clean and green cityscape, the amazing variety of food available, and the unmistakable sounds of Colloquial Singapore English. Colloquial Singapore English is the local lingua franca that developed from a complex contact situation between several distinct languages. The three other official languages of Singapore – Chinese, Malay, and Tamil, have all played a role in shaping Colloquial Singapore English to varying extents, making it uniquely Singaporean. In this study we will investigate the speech of twenty-four Singaporeans and examine the way in which an individual's use of English is influenced by his or her ethnic language. Such influence from one language on another is known by many terms – interference, language transfer, crosslinguistic influence, and others. For the purposes of this study, the term crosslinguistic influence is used as a cover term for the various kinds of crosslinguistic influences observed in Colloquial Singapore English. The term crosslinguistic influence is chosen because it is one of the more conventional cover terms for the phenomenon in studies of contact languages and second language acquisition.

The phenomenon of crosslinguistic influence is of great interest to researchers in a wide range of fields that include language acquisition, language attrition, language contact, and studies of bilingualism and multilingualism. Crosslinguistic influence is the way in which existing linguistic knowledge of a bilingual, broadly defined as a person who knows two or more languages, affects the way he or she acquires and uses an additional language. In order to truly understand how bilinguals, both in a classroom setting or in a language contact situation, acquire and use his or her languages, we need to understand crosslinguistic influence first. Crosslinguistic influence is usually divided into two main types: positive and negative transfer. Positive transfer is when crosslinguistic influence facilitates the learning of the target language and leads to grammatical output in the use of the target language. On the contrary, negative transfer is crosslinguistic influence which leads to ungrammaticality or errors in the use of the target language. The focus of this book will be predominantly on negative transfer in the Singaporean context because it is comparatively easier to identify and quantify, and is therefore more suitable for statistical analysis compared to positive transfer.

It is hoped that the case studies of crosslinguistic influence in a language contact situation like Singapore will help shed light on some of the complex processes behind crosslinguistic influence. To this end, the interaction of crosslinguistic influence with various social and linguistic factors in the three different linguistic domains of morphology, semantics, and discourse is investigated in this study. Furthermore, ideas from second language acquisition will be incorporated into the analysis of the various phenomena to help us better understand crosslinguistic influence in Singapore. Second language acquisition is important to our understanding of crosslinguistic influence because of shared general cognitive processes of bilingual language acquisition and production, both in and outside the classroom. Additionally, unlike some language contact situations where substrate or ethnic languages are no longer spoken, the ethnic languages in Singapore are still very much integral to each Singaporean's daily life. This means that English or their ethnic language is truly a second language for all Singaporeans, and they are experiencing many of the cognitive processes of acquiring a second language.

This book on crosslinguistic influence in Singapore English represents a novel approach to the study of crosslinguistic influence in language contact situations by unifying both social and linguistic aspects of the phenomenon using statistical methods. Even though statistical methods like multivariate analysis are commonly used in sociolinguistics, they have not been commonly used to answer the specific question of the way in which crosslinguistic influence interacts with social and linguistic factors. In short, statistical tools like logistic regressions and Poisson regressions are powerful tools for studying crosslinguistic influence because they provide us with information regarding the relative strengths of each social and linguistic factor, and their interactions with crosslinguistic influence. This allows for a far more nuanced understanding of the phenomenon.

The rest of the book is structured as follows: The rest of Chapter 1 will give the reader a brief summary of the major theoretical studies of Singapore English and conclude with how a study of the linguistic and social aspects of crosslinguistic influence may complement previous studies of Singapore English. Chapter 2 consists of two main parts. The first part of Chapter 2 briefly introduces the history and use of English in Singapore, and the second part of the chapter examines the rich linguistic diversity of Singapore, and introduces to the reader how Singaporeans juggle the use of multiple languages in their daily life. The juggling of languages includes selecting an appropriate language for different interlocutors, and the phenomenon of codeswitching. Two hypothetical case studies will be provided to illustrate how typical Singaporeans utilize their linguistic resources in their everyday lives. The third chapter not only provides the reader a general framework for the study of crosslinguistic influence that considers both social and linguistic aspects of the phenomenon, it also provides the reader with a practical toolkit for the comprehensive study of the social and linguistic aspects of crosslinguistic influence in language contact situations. In addition to the toolkit for the study of crosslinguistic influence, this chapter also describes the psychological basis why parallel constructions between Colloquial Singapore English and the ethnic language are a key channel through which crosslinguistic influence

operates. Chapters 4 to 6 look at three linguistic domains that are not only core components of language, they also exhibit varying degrees of influence from the ethnic languages. The fourth chapter examines the presence or absence of past tense and plural marking. In this chapter, the variability of past tense and plural marking in Colloquial Singapore English is captured by means of logistic regressions that incorporate both social and linguistic predictors. Examples of linguistic predictors include grammatical aspect, lexical aspect, and priming; while examples of social predictors include age, ethnicity, education, attitude toward English, and dominance of English. The chapter also includes in-depth analyses of interview transcripts to flesh out how linguistic and social factors influence an individual's language in specific linguistic contexts. The fifth chapter looks at three Colloquial Singapore English words – *already*, *got*, and *one*, that function similarly to their equivalents in the ethnic languages. Not only will an account of the way in which these functions came to be transferred to Colloquial Singapore English be provided, the way in which the presence of parallel constructions between ethnic languages and Colloquial Singapore English influence the synchronic use of these words will also be revealed. Lastly, the fifth chapter will also investigate how crosslinguistic influence motivated by parallel constructions may be strengthened or weakened by individual-level social factors like one's language proficiency and attitude towards various languages. The sixth chapter focuses on three Colloquial Singapore English discourse particles *lah*, *leh*, and *lor*. Previous studies like Leimgruber (2009) and Smakman and Wagenarr (2013) have shown that the three ethnic groups of Chinese, Malay, and Tamil, differ quantitatively in their use of clause-final discourse particles. As this chapter demonstrates, the three ethnic groups differ quantitatively because of the presence or absence of parallel constructions between each group's ethnic language and Colloquial Singapore English. Additionally, the process by which individuals create their own unique speaker style through the creative use of discourse particles that achieve novel pragmatic purposes will also be described in this chapter. The seventh and final chapter provides a summary of the major findings in Chapters 4 to 6, and an overall picture of the way in which the concept of salience can determine whether social or linguistic factors might be more prominent for a particular linguistic feature. Additionally, the chapter also briefly discusses the implications of the concept of parallel constructions for the fields of language pedagogy, second language acquisition, and contact linguistics.

Previous studies of Singapore English

In this section a brief summary of the major theoretical studies of Singapore English will be introduced to the reader before we conclude with how a study of the linguistic and social aspects of crosslinguistic influence may complement previous studies of Singapore English.

Theoretical studies of Singapore English can be broadly categorized according to their research focus into two categories – those taking a structural approach and those taking a non-structural approach. On the one hand, studies of the structural

approach are mainly interested in providing a linguistic explanation of the unique structures and functions that exist in Singapore English. For instance, why Singaporeans use *already* as an aspect marker. On the other hand, studies taking the non-structural approach are mainly interested in using social factors to explain the variability observed in Singapore English. For instance, why Singaporeans speak differently when talking to different individuals.

Two representative studies of the structural approach include Bao's (2015) system-based model of transfer and Ziegeler's (2015) theory of Merging Constructions. Bao's (2015) system-based model of transfer states that if there are suitable morphosyntactic elements in the lexifier language, a grammatical system from the substrate language may be transferred to the contact language. On the other hand, if there are no suitable morphosyntactic elements in the lexifier language, the whole grammatical system or parts of the grammatical system will not be transferred. In this sense, the lexifier language acts as a filter of substrate transfer. An example from one of the substrate languages, Southern Min, can illustrate this. The Southern Min verb *ho* 'give' functions not only as a ditransitive verb, but also as a marker of passive voice. The morphosyntactic frames for these two functions are [*ho* NP NP] for the ditransitive verb, and [*ho* NP V] for the passive marker. According to Bao (2015), since the lexifier language, English, acts as a filter, the frame [*give* NP NP] is commonly used in the contact language, Singapore English because the same frame exists in English too. On the contrary, the frame [*give* NP V] is rarely used in Singapore English because it does not exist in English. In short, Bao (2015) provides us with an explanation of why certain substrate functions are transferred into Singapore English while others are not.

Ziegeler's (2015) theory of Merging Constructions uses a construction-based approach to explain the appearance of novel functions in Singapore English that are not derived from either the substrate languages or the lexifier language. An example of a novel function is the experiential aspect of Colloquial Singapore English *ever*. In Standard Singapore English *ever* functions as a minimizing quantifier that usually appears in questions like (1). In addition to being a minimizing quantifier, Colloquial Singapore English *ever* also marks experiential aspect and appears in contexts like (2). For both cases there is an inferential meaning that the action can be repeated. It is this semantic link between Colloquial Singapore English *ever* and Standard Singapore English *ever* that allows Colloquial Singapore English speakers to view it as a single construction.

(1) Have you **ever** been to Malaysia?
(2) I **ever** go Malaysia.

'I have been to Malaysia.'

The non-structural approach to the study of Singapore English includes various sociolinguistic models proposed since the 1970s. Since then, various sociolinguistic models have been proposed to account for the linguistic variation found in Singapore English. They are Platt's (1975) Post-creole Continuum model, Pakir's

(1991) Triangle model, Poedjosoedarmo's (1995) modified Triangles model, Gupta's (1994) Diglossia model, Platt's (1977) Polyglossia model, Alsagoff's (2007, 2010) Cultural Orientation model, and Leimgruber's (2013) Indexicality model. What these models have in common is the use of social factors in explaining the alternation between Standard Singapore English and Colloquial Singapore English. For example, the same individual using Standard Singapore English to speak to her teachers and Colloquial Singapore English to speak to her friends. Another example is an individual alternating between Standard Singapore English and Colloquial Singapore English features within a single sentence to convey different attitudes and stances. What follows is a brief summary of each sociolinguistic model; for a fuller discussion of the pros and cons of each individual model please refer to Leimgruber (2013) or Ziegeler (2015).

Platt (1975) applies De Camp's (1971) concept of a post-creole continuum to Singapore English. In this model lects in Singapore English form a continuum ranging from basilect to acrolect (see Figure 1.1). Basilect is the speech variety that is most dissimilar from English and acrolect is the speech variety that most resembles English.

'An individual's position on the continuum, coupled with socioeconomic and educational factors, [determines] the number and types of sub-varieties which are at his disposal (Platt 1975: 369).' Two important points to note are 1) an individual with a higher socioeconomic status and/or had received more education will command a wider possible range of lects; 2) all speakers have access to the basilect.

Referring to Platt's (1975) model as a 'cline of proficiency', Pakir's (1991) triangle model builds on Platt's (1975) model by introducing an additional dimension of variation – a cline of formality. For her, variation in Singapore English can be captured by the English proficiency of the individual and the formality of the speech context. For instance, an individual with a higher English proficiency will have command of a wider range of sub-varieties or speaking styles and would be able

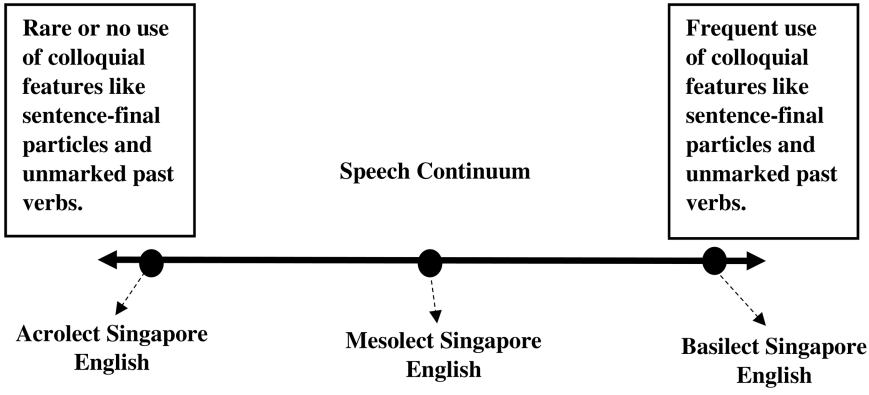

Figure 1.1 Sub-varieties of Singapore English available to speakers in the Singapore speech community

to shift from Colloquial Singapore English to Standard Singapore English when the formality of a situation requires so. This is similar to Platt's (1975) approach, the range of styles an individual command is assumed to be directly related to the education level of a person, which is taken as the indicator of English proficiency.

Modifying Pakir's (1991) triangle model, Poedjosoedarmo's (1995) model shifted the middle and bottom triangles downwards and placed them outside of the biggest triangle. Such a change means that acrolectal speakers do not have command of the full range of mesolectal varieties. Additionally, both acrolectal and mesolectal speakers are not able to speak the basilect as there is no overlapping region between the bottom triangle and the other two triangles. Figure 1.2 is a Venn-diagram representation of the relationships between acrolectal speakers, mesolectal speakers, and basilectal speakers according to Poedjosoedarmo (1995). This is in contrast to Pakir's (1991) triangle model, where the acrolectal speaker would have full command of both mesolectal and basilectal varieties.

Gupta's (1994) Diglossia model applies Ferguson's (1959) notion of diglossia to the Singaporean context. She proposed that Standard Singapore English is the superposed or H variety and Colloquial Singapore English is the everyday or L variety. Variation in Singapore English is accounted for by speakers actively switching between H and L varieties to achieve particular communicative functions. For instance, a primary school teacher may switch from Standard Singapore English to Colloquial Singapore English when he or she wants to get a particular message across to the students that may be more difficult to comprehend in Standard Singapore English (Gupta 1994).

Arguing against Fishman's (1972) concept of a sociolinguistic typology which includes both diglossia and bilingualism, Platt (1977) argues that such a typology does not cover multilingual speech communities like Singapore and Malaysia. In

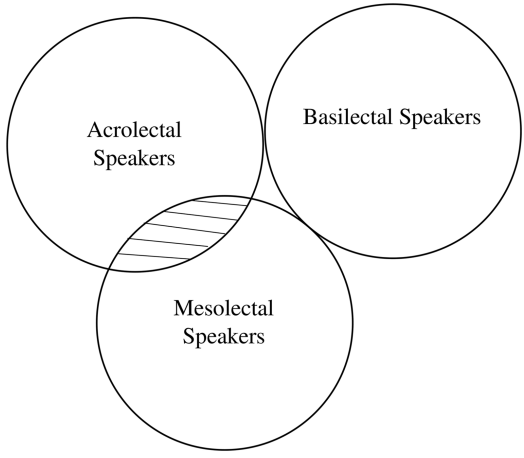

Figure 1.2 Relationships between acrolectal speakers, mesolectal speakers, and basilectal speakers according to Poedjosoedarmo (1995)

Table 1.1 Linguistic repertoire of an English-educated Malay Singaporean

H_1	Standard Singapore English
H_2	Standard Malay
DH_1	Mandarin
DH_2	Tamil
M	Colloquial Singapore English
L_1	Colloquial Malay
L_2	Southern Min

such polyglossic communities, he argues, the functional distribution of speech varieties in the community involves more than two varieties (see Table 1.1).

Based mainly on the domains of use and speaker attitudes toward different language varieties, speech varieties are ranked along the H(igh)-M(edium)-L(ow) scale. Platt (1977) divides the H-M-L scale into various levels and even introduced a DH (Dummy H) level. A variety placed at the DH level is a language that carries a fair bit of prestige but is not widely used for the purposes of day-to-day communication. In Singapore's case, the four official languages of English, Mandarin, Malay, and Tamil are languages at the DH level if an individual is not able to speak it fluently.

In Alsagoff's (2007, 2010) Cultural Orientation model, the variation seen in Singapore English is a result of two opposing cultural orientations. The first is an orientation towards globalization, and the second is an orientation towards localization. "Conflict between 'being global' and 'being local' (Alsagoff 2007: 34)" causes language variation. The two poles are marked by two different language varieties, ISE (International Singapore English) and LSE (Local Singapore English) and are associated with different characteristics or features. ISE is associated with economic capital, authority, formality, distance, and educational attainment, while LSE is associated with sociocultural capital, camaraderie, informality, closeness, and community membership (Alsagoff 2007: 39). For instance, a politician can use a mixture of LSE and ISE at a rally speech to project authority and camaraderie at the same time.

Leimgruber (2013) applies Eckert's notion of an 'indexical field' to explain the variation of Standard (H variety) and Colloquial features (L variety) in Singapore English. An indexical field is the range of potential social meanings attached to a linguistic variable and consists of three types of social meanings: social types, permanent qualities, and stances. As Eckert (2008) notes, these are not discrete categories but rather fluid categories that arise in practice. Using the notion of indexicality, Leimgruber (2013) examines how speakers make use of both Standard and Colloquial features to formulate a unique identity.

(3) So ø everybody agree with Sarawak? Yes! Well done!

Example (3) from Leimgruber (2013: 57) is uttered in a conversation which was conducted predominantly in Standard Singapore English. In this case, the lack of

the verb DO in (3) can be considered a Colloquial feature or variant. According to Leimgruber's (2013) analysis, the Colloquial variant here indexes the stance of 'annoyed' as the speaker is becoming impatient with the task that was assigned to them and would like to finish it as quickly as possible. Other stances that may be indexed by the use of Colloquial variants include 'local', 'regional', 'exasperated', and 'lighthearted'. As for the stances conveyed by the use of Standard variants, they may include 'global', 'serious', and 'important' (Leimgruber 2013: 59). Leimgruber's (2013) approach to analyzing social meaning like stances will be incorporated into our analysis of individual speaker style in Chapter 6.

This brief overview of previous studies has shown that both non-structural and structural approaches to the study of Singapore English have very different research agendas, and are concerned with very different research questions. Generally speaking, non-structural studies focus on using social factors to explain the variability observed in Singapore English while structural studies focus on providing a linguistic explanation for the unique structures and functions that exist in Singapore English. For non-structural studies, the role of crosslinguistic influence is not specifically mentioned in the sociolinguistic models that aim to explain linguistic variation in Singapore English. On the other hand, crosslinguistic influence is a central concern for structural studies where the influence from substrate languages or sub-varieties is an integral part of Bao (2015) and Ziegeler's (2015) theories. Nevertheless, the interplay between linguistic and social aspects of crosslinguistic influence has yet to be fully explored. For instance, in Bao's (2015) case, how would influence from the lexifier language strengthen or weaken depending on the kind of social characteristics an individual possess? Similarly, for Ziegeler's (2015) case, what kind of social characteristics would predispose an individual to innovations of the Merge Construction type? Not only will incorporating social factors give us a more complete picture of how crosslinguistic influence works, it will also in turn enhance our understanding of the linguistic processes involved in crosslinguistic influence. To this end, statistical methods like multivariate analyses are powerful tools for studying crosslinguistic influence because they reveal the relative strengths of different linguistic and social factors, thus providing us with a more nuanced understanding of the phenomenon.

To conclude, by unifying both linguistic and social aspects of crosslinguistic influence, this current study of Colloquial Singapore English aims to illuminate the specific question of how crosslinguistic influence interacts with social, psychological, and linguistic factors. Not only will such a study lead to a more complete understanding of crosslinguistic influence in Colloquial Singapore English, it will also contribute to broader discussions of crosslinguistic influence in other contact languages and second language learner varieties.

References

Alsagoff, Lubna. 2007. Singlish: Negotiating culture, capital and identity. In Viniti Vaish, Saravanan Gopinathan, and Yongbing Liu (eds.), *Language, capital, culture*, 25–46. Rotterdam: Sense Publishers.

Alsagoff, Lubna. 2010. English in Singapore: Culture, capital and identity in linguistic variation. *World Englishes* 29(3). 336–348.

Bao, Zhiming. 2015. *The making of vernacular Singapore English: System, transfer and filter*. Cambridge: Cambridge University Press.

DeCamp, David. 1971. Towards a generative analysis of a post-creole speech continuum. In Dell Hymes (ed.), *Pidginisation and creolization of languages*, 349–370. Cambridge: Cambridge University Press.

Eckert, Penelope. 2008. Variation and the indexical field. *Journal of Sociolinguistics* 12. 453–476.

Ferguson, Charles A. 1959. Diglossia. *Word* 15. 325–340.

Fishman, Joshua A. 1972. *Sociolinguistics: A brief introduction*. Rowley, MA: Newbury House.

Gupta, Anthea Fraser. 1994. *The step-tongue: Children's English in Singapore*. Clevedon: Multilingual Matters.

Leimgruber, Jakob R. E. 2009. *Modeling variation in Singapore English*. Oxford: University of Oxford dissertation.

Leimgruber, Jakob R. E. 2013. *Singapore English: Structure, variation, and usage*. Cambridge: Cambridge University Press.

Pakir, Anne. 1991. The range and depth of English-knowing bilinguals in Singapore. *World Englishes* 10. 167–179.

Platt, John T. 1975. The Singapore English speech continuum and its basilect 'Singlish' as a 'creoloid'. *Anthropological Linguistics* 17. 363–374.

Platt, John T. 1977. A model for polyglossia and multilingualism (with special reference to Singapore and Malaysia). *Language in Society* 6. 361–378.

Poedjosoedarmo, Gloria R. 1995. Lectal variation in the media and the classroom: A preliminary analysis of attitudes. In Su Ching Teng and Mian-Lian Ho (eds.), *The English language in Singapore: Implications for teaching*, 53–67. Singapore: Singapore Association for Applied Linguistics.

Smakman, Dick, and Stephanie Wagenarr. 2013. Discourse particles in colloquial Singapore English. *World Englishes* 32(3). 308–324.

Ziegeler, Debra. 2015. *Converging grammars: Constructions in Singapore English*. Boston: De Gruyter Mouton.

2 You say *buay*, I say *tahan*

The linguistic situation in Singapore

"Few places are more interesting to a traveler from Europe than the town and island of Singapore, furnishing as it does, examples of a variety of Eastern races, and of many religions and modes of life" (Wallace 1869: 31). A British naturalist and explorer, Alfred Russel Wallace, made this observation of racial, religious, and cultural diversity in early 20th century Singapore. Since the early 20th century, Singapore has been home to a diverse population that hailed from China, India, and the neighboring Malay Archipelago. According to Chew (2013), a 1911 census recorded a total of 54 different languages and 48 different races, reflecting a diversity and plurality that makes Singapore an intriguing research site for the study of sociolinguistics.

The complexity and diversity of the linguistic situation in Singapore engendered a distinct variety of English or Colloquial Singapore English which is the subject of extensive research and study (see Foley 1988; Gupta 1994; Brown 1999; Lim 2004; Low and Brown 2005; Deterding 2007; Leimgruber 2013; Bao 2015; Ziegeler 2015, among many others). In this chapter we will examine the complex linguistic situation of Singapore from two perspectives – a macro-level understanding of languages in Singaporean society and a micro-level understanding of how individuals draw on their respective linguistic repertoires to communicate with one another.

Languages in Singaporean society

Located at the southernmost tip of peninsular Malaysia and with the Riau Islands to its south, Singapore is 137 kilometers or 85.1 miles north of the equator (see Figure 2.1). It has a total land area of 719.9 square kilometers or 278 square miles (Singapore Department of Statistics, Population and land area 2018), and consists of one main island and over 60 islets.

With the signing of a treaty between Thomas Stamford Raffles and Sultan Hussein Shah, the British East India Company began to develop the southern part of Singapore into a British trading post in 1819. Before Singapore became a British trading port, approximately a thousand people lived on the island (Turnbull 2009), and most of them were indigenous people, except for a few dozen Chinese. As a result of immigration from neighboring regions, Singapore's population soared to a hundred thousand in 1869. The three main sources of immigration to Singapore

Figure 2.1 Map of Singapore and surrounding region

Source: Modified from http://d-maps.com/m/asia/malaisie/malaisie01.gif

Table 2.1 Ethnic composition of Singapore from 1840 to 2010

Year	*Total population*	*Chinese*	*Malay*	*Indian*	*Others*
1840	35,389	50.0%	37.3%	9.5%	3.1%
1860	81,734	61.2%	19.8%	15.9%	3.1%
1891	181,602	67.1%	19.7%	8.8%	4.3%
1911	303,321	72.4%	13.8%	9.2%	4.7%
1931	557,745	75.1%	11.7%	9.1%	4.2%
1957	1,445,929	75.4%	13.6%	8.6%	2.4%
1980	2,413,945	76.9%	14.6%	6.4%	2.1%
2000	4,017,733	76.8%	13.9%	7.9%	1.4%
2010	5,076,732	74.1%	13.4%	9.2%	3.1%

were the Malay Archipelago, South China, and India. Since 1911 the ethnic composition of Singapore has remained relatively stable with roughly 70% Chinese, 14% Malay, and 9% Indian. Table 2.1 shows the ethnic composition of Singapore from 1840 to 2010 (Aye 2005: 9, supplemented with 2010 census data).

In the year 2010, there were 5, 076, 732 people living in Singapore. Of these 5 million people, 3, 230, 719 were Singapore citizens, 541, 002 were permanent residents and 1, 305, 011 were non-residents which includes foreign workers, students, and their dependents (Singapore Department of Statistics, Census of population 2010).

Not only were there changes in the demographics of Singapore over time, the linguistic repertoire of individuals also changed with the passage of time. Major shifts in the linguistic repertoire of individuals corresponded to major socio-political changes in Singapore's history and can be roughly divided into three broad historical time periods (Lim 2007; Ansaldo 2010).

Precolonial period (before 1819)

Bazaar Malay was the lingua franca for inter-ethnic communication in Singapore before the British established their trading port in 1819. It is a morphologically simplified trade language that was the result of contact between indigenous Malays and Chinese traders (mainly Southern Min speakers), and has been used throughout the Malay Archipelago since the 15th century.

Colonial period and period shortly after Singapore's independence in 1965 (1819–1970s)

From 1819 to the 1970s, Bazaar Malay continued to serve as a lingua franca for communication between different ethnic groups in Singapore. Amongst the Chinese, Southern Min served as the lingua franca for people who spoke mutually unintelligible Chinese dialects. Other common languages spoken during this time period include Baba Malay (a contact language formed when Chinese men married local Malay women), other Chinese dialects like Cantonese and Hakka, Indian languages especially Tamil, and English spoken by Eurasians.

From 1970s to present day

With the implementation of the bilingual policy in education in 1966, Bazaar Malay was gradually replaced by English as the lingua franca for inter-ethnic communication. Similarly, Southern Min was gradually replaced by Mandarin or Modern Standard Chinese as the lingua franca for the Chinese people. Moreover, a large influx of immigrants from North China (Mandarin with dialectal differences), North India (Hindi, etc.), and the Philippines (Tagalog) in the last decade has brought in new language varieties. At present, approximately 40% of the population in Singapore are immigrants (permanent residents and those on work permits/student visas). However, the contact between immigrants and Singaporeans is not very intense as new immigrants and Singaporeans largely keep to their own groups.

The effects of government policies on language use

Although English has been present in Singapore for several centuries, it did not become a widely used lingua franca until the 1970s. Long before the British established a trading port in 1819, British traders had already introduced English into Singapore (Gupta 1998). Nevertheless, according to Gupta (1998), there was no

clear evidence of an English-based pidgin in Singapore before the formation of Colloquial Singapore English. However, contrary to Gupta's (1998) claim, Bao (2001) found mention of an English-based pidgin in the writings of travelers. Regardless of whose claim is right, we can be certain of three things. First, prior to Singapore's independence in 1965, there was already a distinctive variety of English spoken in English-medium schools in Singapore (Platt 1975). Second, English-medium education became increasingly widespread following Singapore's independence in 1965. According to Platt (1975: 366), 50.4% of the total school going population in 1962 studied in an English-medium school. Ten years later in 1972, 64.8% of the school population went to English-medium schools. Third, as reported by Newbrook (1987), there was a more or less stabilized variety of English that Singaporean teenagers were using in the 1980s. In short, the Colloquial Singapore English that we know of today has its roots in pre-independence English-medium schools and likely stabilized sometime in the late 1970s or early 1980s.

It might seem surprising that English only gained widespread usage recently given the fact that Singapore was a British colony from 1819 to 1963.[1] Such an interesting situation was the result of the British colonial masters' laissez-faire attitude toward the local people's education. As the British never planned to provide education to the entire population of Singapore, various grassroots organizations and businessmen stepped in to fill the gap, which was why many non-English medium schools were established and English was not widely acquired by the majority of the population until very much later. At the time of Singapore's independence in 1965 there were two major issues that needed urgent attention – a fractious society and a failing economy. Since British rule the population was officially categorized into four ethnic groups, namely Chinese, Malay, Indian, and others, and they co-existed in an uneasy peace. In addition to animosity between ethnic groups, poverty and unemployment were also widespread in the 1960s (Dixon 2005). To help solve these two issues, the Singapore government introduced the bilingual policy in 1966 (Dixon 2005). Four languages were recognized as official languages, namely Mandarin Chinese (Modern Standard Chinese), Malay, Tamil, and English. Being a 'neutral' language not spoken by the vast majority of Singapore's population, English was promoted as a common language for communication between different ethnic groups (Dixon 2005). It was hoped that speaking a common language would help unify Singaporeans by improving relations between the various ethnic groups. The other languages were considered the 'mother tongues' of the major ethnic groups, and were recognized because many people, still deeply loyal to their mother tongues, would be resistant to English being the only official language of Singapore (Dixon 2005). It is clear that the mother tongues of each ethnic group were selected for political reasons, since the official mother tongue was not spoken by everyone in a particular ethnic group. For instance, even though Mandarin Chinese had long been established as the language of Chinese education, the majority of Chinese people still speak other Chinese dialects as a first language at the time of Singapore's independence. Similarly, only sixty percent

of the Indians in 1957 spoke Tamil at home, and seventy percent of the Malays spoke Malay at home (Dixon 2005).

English was also promoted to solve the problem of a flagging economy, as mastering English would not only be useful in bringing in much-needed trade and investment, it would also facilitate access to science and technology (Dixon 2005). The bilingual policy thus made it compulsory for students to study two of the official languages – English and a mother-tongue language. This means that English-medium schools were required to teach mother tongue subjects and mother tongue-medium schools were required to teach English. Due to the government's stance on English, English was, and still is, a highly prestigious language that is linked to high social mobility. As a result, parents who wanted to give their children a head start in life would choose to send their children to English-medium schools instead.

With increasing enrollments in English-medium schools and decreasing enrollments in mother tongue-medium schools, many mother tongue-medium schools closed between 1965 and 1987, and all remaining mother tongue-medium schools had to make the transition to English as the medium of instruction for all content subjects in 1987 (Dixon 2005). 57% of the primary school students studied in English-medium schools in 1965. By 1975, Tamil-medium schools had no new enrollments, and by 1983, Malay-medium schools also had no new enrollments. During the same year in 1983, new enrollments to Chinese-medium schools constituted less than 1% of the entire Primary 1 (equivalent to grade 1) cohort (Dixon 2005).

An evaluation of the bilingual policy was carried out by Dr. Goh Keng Swee, then the education minister, after the implementation of the bilingual policy in 1966. The evaluation reported that less than 40% of the students achieved competence in two languages (Dixon 2005). A later report attributed the cause of this less than satisfactory performance to the speaking of Chinese dialects at home, which means that Chinese students actually had to learn not one but two 'foreign' languages in school. To ease the burden of learning two languages in school, the Singapore government initiated a Speak Mandarin campaign around 1979 to phase out Chinese dialects. It was hoped that by promoting the use of Mandarin among the Chinese population, other Chinese dialects can be completely eradicated (Dixon 2005), thereby easing the students' burden of learning two additional languages in school. Since then, Chinese dialects completely disappeared from television and most radio programming, and Cantonese television programs and films from Hong Kong had to be dubbed before they can be shown to viewers (Dixon 2005). The campaign was incredibly successful, and the most frequently-used language at home began to shift away from Chinese dialects. However, not everyone who abandoned the other Chinese dialects shifted to using Mandarin Chinese at home; a sizable number shifted to using English instead (see Table 2.2). The increased use of English at home and other factors led to a decrease in the Chinese population's proficiency levels in the Chinese language, and the government had to introduce a Basic Chinese course in the year 2002. Primary 5 and 6 students who are performing poorly in Chinese can have the option of taking

Table 2.2 Most frequently used language at home from 1990–2010

Ethnic group/ language	*Overall (%)*		
	1990	*2000*	*2010*
Chinese			
English	19.3	23.9	32.6
Mandarin	30.1	45.1	47.7
Chinese dialects	50.3	30.7	19.2
Other	0.3	0.4	0.4
Malays			
English	6.1	7.9	17
Malay	93.7	91.6	82.7
Other	0.1	0.5	0.3
Indians			
English	32.3	35.6	41.6
Malay	14.5	11.6	7.9
Tamil	43.2	42.9	36.7
Other	10.0	9.9	13.8

Source: Dixon 2005 and supplemented with 2010 census

the Basic Chinese course. As the course is less rigorous and focuses primarily on reading, speaking, and listening skills, students can have more time to spend on their English and other content subjects (Tong and Goh 2009). The introduction of the Basic Chinese course makes the government's stance on mother-tongue languages clear. English and content subjects like mathematics and science take precedence over mother tongue languages.

With the government's emphasis on mastering English, there is an increasing trend of English being used as the language of communication at home (see Table 2.2). Moreover, English is also emerging as the language of the young. In the 2000 census 36% of Chinese children aged from five to fourteen years claimed that their most frequently-used home language is English; 22% of the Chinese people aged from fifteen to twenty-four years claimed that their most frequently-used home language is English, and 25% of the Chinese people aged from twenty-five to fifty-four years claimed that their most frequently-used home language is English.

The shift to English in the typical Singaporean home is the result of English being highly valued in the Singaporean linguistic market. As English is the language of choice in official settings, a high level of proficiency in English is required by many decent paying jobs. As such, even though official government policy states that English, Mandarin, Malay and Tamil are equally important, the reality is that being proficient in English is deemed more valuable than being proficient in one of the mother-tongue languages. That is why, for many people, a lack of proficiency in English is inextricably linked to a low educational level and a low socioeconomic status. Overall, Singaporean society is becoming less multilingual over time due to the disproportionate amount of importance placed

on a single language. For instance, a typical educated Chinese youth in the 1970s could communicate not only in his or her first language (Southern Min, Cantonese, Hakka, etc.), he or she would also be able to speak some English, Bazaar Malay, Mandarin Chinese, and other Chinese dialects. However, today, a typical educated Chinese youth only knows two languages – English and Mandarin Chinese. In short, two reasons led to Singapore becoming less multilingual overall: English replacing Bazaar Malay as the lingua franca, and the decline of Chinese dialects.

Juggling multiple languages

With knowledge of more than one language, bilinguals must decide when, with whom, and in what situation they should speak a particular language or code-switch. In Singapore, the linguistic repertoire of an individual varies primarily according to age, ethnicity, and education background (see Table 2.3). In what follows, we will examine the factors that determine an individual's language choice and understand the motivations behind mixing languages within a conversation or even within a single sentence.

Even though the linguistic repertoire of individuals in Singapore vary greatly according to age, ethnicity, occupation, and education background, Singaporeans, like other bilinguals, can usually determine which language to use when speaking

Table 2.3 Linguistic repertoires of Singaporeans

Ethnic group and age	*Usually includes*	*May include*
Chinese (>50 years)	i) Native Chinese dialect or Baba Malay ii) Dominant Chinese dialect: Southern Min (if native dialect not Southern Min) iii) Bazaar Malay	i) English ii) Modern Standard Chinese iii) Other Chinese dialect(s)
Chinese (<50 years)	i) English ii) Modern Standard Chinese	i) Other Chinese dialect(s)
Malay (>50 years)	i) Colloquial Singapore Malay ii) 'Standard' Malay	i) English ii) Some Chinese dialect
Malay (<50 years)	i) Colloquial Singapore Malay ii) 'Standard' Malay iii) English	NA
Indian (>50 years)	i) Native Indian language ii) Some Tamil (if native language not Tamil) iii) Bazaar Malay	i) English ii) Some Chinese dialect
Indian (<50 years)	i) Native Indian language ii) English	i) Some Bazaar Malay

Source: Teo 2016: 20

to a particular individual based on external cues like stance, dress, and facial expression (Grosjean 2010). To decide what language to use in a particular situation, a bilingual will consider four factors, 'participants', 'situation', 'content of discourse', and 'function of the interaction' (Grosjean 2010).

Among the four factors that are considered, the factor of 'participants' is the most complex because it involves the processing of many social cues. Since Singaporean society is gradually becoming less multilingual, an individual's linguistic repertoire can vary greatly according to his or her age, ethnicity, and education background. For instance, an individual in his sixties who is educated in a mother tongue-medium school will not only be able to speak his or her mother tongue, but also some Bazaar Malay and Southern Min, even if he or she is not a native speaker of these two language varieties. On the other hand, if that individual went to an English-medium school, he or she would also be able to speak English.

The second factor that influences an individual's language choice is 'situation'. With the official working language of Singapore being English, English is the preferred language in formal situations and increasingly in informal situations. For less formal situations people will usually use a language that they or the interlocutor is comfortable with, and that may or may not necessarily be English. This is one way in which the factor of 'participants' may interact with the factor of 'situation'. For example, English is the default language in formal settings like opening a bank account or sending packages at a post office, but if someone is not fluent in English, he or she may use a language that he or she is fluent in, and that may be one of the other official languages – Malay, Tamil, or Mandarin – or even Bazaar Malay or other Chinese dialects.

The third factor that influences an individual's language choice is 'content of discourse'. As most interactions in official settings are conducted in English, many Singaporeans only know the English terms for topics related to school, work or government policy. Therefore, when conversing on a topic like employment benefits, English would be a natural choice because people might not know the appropriate vocabulary in their other languages.

Lastly, the fourth factor that influences an individual's language choice is 'function of the interaction'. A list of different functions include: "to raise one's status, to create a social distance, to exclude someone, to request something, or to give a command" (Grosjean 2010: 47). For example, a university professor will speak to his or her students in English when students come in for his or her office hours. However, when the same professor happens to see his or her students outside campus, he or she may speak another language to signal that this is not a formal setting and that they may have a more equal relationship.

It is natural and common for Singaporeans to code-switch because most Singaporeans have shared knowledge of several languages. Not only is code-switching prevalent in informal domains with friends and family, it is also prevalent in formal domains like work, religion, and parliament (Pakir 1991; Vaish 2007;

Bokhorst-Heng and Caleon 2009). Nevertheless, code-switching is still more common in informal contexts than formal contexts. Moreover, code-switching in the Singaporean context is not only limited to different languages or different dialects, another common way of code-switching that can be observed in Singapore is the switching between standard and more colloquial varieties of a single language. There are many linguistic and social reasons why a person would choose to code-switch when speaking to someone who shares the same linguistic repertoire. Grosjean (2010) lists the main reasons for a bilingual to code-switch (examples of codeswitching are provided by the author):

(1) To express something better
Bilinguals may wish to use a word or phrase in another language that may provide additional layers of meaning which an equivalent word in the base language cannot. For instance, an individual speaking in Mandarin may switch to the verb *tackle* when talking about 'tackling some tough math questions'. A switch to the English word *tackle* is made as the verb's sense of physically tackling someone makes for a more vivid and concrete representation of dealing with a difficult question.

(2) A linguistic need to express particular concepts
When bilinguals do not know how to express a certain concept in the base language, they may start expressing themselves in another language. As the default language in formal settings is English in Singapore, an individual may only be familiar with English words that are associated with a particular setting. For instance, when speaking a non-English language, an individual may switch to English words for postal-related words like 'letter', 'stamp', and 'airmail', since these are words that he or she is more familiar with.

(3) As a communicative or social strategy
Bilinguals may use code-switching as a kind of communicative or social strategy. This includes showing involvement in a conversation, showing others your expertise, fostering group identity, excluding people from a conversation (Grosjean 2010). For instance, to create an in-group identity, Singaporeans may code-switch from Standard Singapore English to Colloquial Singapore English when talking informally to friends and family. As such, rather than saying 'This question is so difficult to understand', saying 'This question is so *cheem* (Southern Min word for *deep*)' helps create a Singaporean identity because non-Singaporeans may not necessarily know what the speaker means.

To give the reader a clearer sense of how Singaporeans juggle their different languages, the following two hypothetical case studies will illustrate how typical Singaporeans utilize their linguistic resources in their everyday lives. Even though these case studies are hypothetical they are examples of typical Singaporeans based on information from the sociolinguistic interviews and the author's observations of language use in Singapore.

Case Study 1: Lee, a 20-year-old Chinese female. Knows English, Mandarin, and Southern Min

At home Lee speaks a mixture of Mandarin, Southern Min, and English. As her parents are not English-educated and do not speak English, she speaks to them in a mixture of Mandarin and Southern Min. To her siblings she speaks to them in Mandarin and English, and occasionally some Southern Min. At the university she studies at she has a close group of friends with whom she converses predominantly in Mandarin. At times she will use English with them if they are talking about school work or simply code-switch in the middle of a Chinese sentence. For other acquaintances at her university she will speak to them in English, and may sometimes switch to and from Mandarin if the interlocutor knows Mandarin. When she buys food from the school cafeteria she will either speak in English or Mandarin to the stall owners depending on the stall owners' ethnicity. When she visits the post office to deliver packages she speaks to the staff at the post office in English regardless of their ethnicity.

Case Study 2: Ravi, a 60-year-old Indian male. Knows English, Tamil, some Malay, some Southern Min, and some Arabic

At home Ravi speaks a mixture of Tamil and English. As he is English-educated, he speaks to his children in a mixture of Tamil and English. To his spouse he speaks predominantly in Tamil and occasionally code-switches to English. At his workplace he changes the language he uses depending on the interlocutor's language background. He will speak Tamil to Indian colleagues who know Tamil and English to other colleagues. At times he will also use insert some Malay and Southern Min phrases when speaking to Malay and Chinese colleagues respectively. At the food center where he buys lunch and coffee he orders coffee in Southern Min dialect as the store owner is a Southern Min speaker, and orders lunch from a Malay food vendor using Bazaar Malay. After work on Fridays Ravi goes to the mosque to pray. He says his prayers in Arabic.

Note

1 Singapore gained self-independence from the British in 1963 by joining the Federation of Malaysia.

References

Ansaldo, Umberto. 2010. Contact and Asian varieties of English. In Raymond Hickey (ed.), *The handbook of language contact*, 498–517. Chichester; West Sussex: Wiley-Blackwell.

Aye, Daw Khin Khin. 2005. *Bazaar Malay: History, grammar and contact*. Singapore: National University of Singapore dissertation.

Bao, Zhiming. 2001. The origins of empty categories in Singapore English. *Journal of Pidgin and Creole Languages* 16. 275–320.

Bao, Zhiming. 2015. *The making of vernacular Singapore English: System, transfer and filter*. Cambridge: Cambridge University Press.

Bokhorst-Heng, Wendy D., and Caleon Imelda. 2009. Language attitudes in multilingual Singapore: A study of the language attitudes of Singapore's bilingual youth. *Journal of Multilingual and Multicultural Development* 30(3). 235–251.

Brown, Adam. 1999. *Singapore English in a nutshell: An alphabetical description of its features*. Singapore: Federal Publications.

Chew, Phyllis Ghim Lian. 2013. *Sociolinguistic history of early identities in Singapore: From colonialism to nationalism*. Houndmills, Basingstoke: Palgrave Macmillan.

Deterding, David. 2007. *Singapore English*. Edinburgh: Edinburgh University Press.

Dixon, L. Quentin. 2005. Bilingual education policy in Singapore: An analysis of its socio-historical roots and current academic outcomes. *International Journal of Bilingual Education and Bilingualism* 8(1). 25–47.

Foley, Joseph A. 1988. Studies in Singapore English: looking back and looking forward. In Joseph Foley (ed.), *New Englishes: The case of Singapore*, 1–26. Singapore: Singapore University Press.

Grosjean, François. 2010. *Bilingual life and reality*. Cambridge, MA: Harvard University Press.

Gupta, Anthea Fraser. 1994. *The step-tongue: Children's English in Singapore*. Clevedon; England: Multilingual Matters.

Gupta, Anthea Fraser. 1998. The situation of English in Singapore. In Joseph Foley, Thiru Kandiah, Zhiming Bao, Anthea Fraser Gupta, Lubna Algasoff, Chee Lick Ho, Lionel Wee, Ismail S. Talib, and Wendy Bokhorst-Heng (eds.), *English in new cultural contexts. Reflections from Singapore*, 106–126. Singapore: Oxford University Press [Singapore Institute of Management].

Leimgruber, Jakob R. E. 2013. *Singapore English: Structure, variation, and usage*. Cambridge: Cambridge University Press.

Lim, Lisa (ed.). 2004. *Singapore English: A grammatical description*. Amsterdam: John Benjamins.

Lim, Lisa. 2007. Mergers and acquisitions: On the ages and origins of Singapore English particles. *World Englishes* 26(4). 446–473.

Low, Ee Ling, and Adam Brown. 2005. *English in Singapore: An introduction*. Singapore: McGraw Hill.

Newbrook, Mark. 1987. *Aspects of the syntax of educated Singaporean English*. Frankfurt: Peter Lang.

Pakir, Anne. 1991. The range and depth of English-knowing bilinguals in Singapore. *World Englishes* 10(2). 167–179.

Platt, John T. 1975. The Singapore English speech continuum and its basilect 'Singlish' as a 'creoloid'. *Anthropological Linguistics* 17. 363–374.

Singapore Department of Statistics. Census of population 2010. www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/cop2010/census_2010_advance_census_release/c2010acr.pdf (20 May 2018).

Singapore Department of Statistics. Population and land area. www.singstat.gov.sg/statistics/latest-data#16 (20 May 2018).

Teo, Ming Chew. 2016. *Variation in Singapore English: Cross-linguistic influence from Chinese, Malay, and Tamil*. Stanford, CA: Stanford University dissertation.

Tong, Ho-Kin, and Yeng-Seng Goh. 2009. Challenges of Chinese language education in multi-lingual societies: Hong Kong and Singapore. *International Education Studies* 1(4). 44–52.

Turnbull, Constance Mary. 2009. *A history of modern Singapore, 1819–2005*. 4th ed. Singapore: National University of Singapore Press.

Vaish, V. 2007. Bilingualism without diglossia: The Indian community in Singapore. *International Journal of Bilingual Education and Bilingualism* 10. 171–187.

Wallace, Alfred Russel. 1869. *The Malay Archipelago: The land of the Orang-utan, and the bird of paradise. A narrative of travel, with studies of man and nature*. London: Macmillan.

Ziegeler, Debra. 2015. *Converging grammars: Constructions in Singapore English*. Boston: De Gruyter Mouton.

3 Toolkit for unifying social and linguistic aspects

In this chapter, a practical toolkit for the comprehensive study of the social and linguistic aspects of crosslinguistic influence in language contact situations will be introduced. The toolkit includes questionnaires to determine an individual's language dominance and language attitudes; sociolinguistic interviews to gather linguistic data; and statistical methods to incorporate both social and linguistic aspects of crosslinguistic influence within a single unified analysis.

General framework

Weinreich (1953: 3) states in his seminal study, *Languages in contact, findings and problems*, "a full account of interference in a language contact situation, which includes the diffusion, persistence, and evanescence of a particular interference phenomenon, is possible only if the extra-linguistic factors are considered". For us to achieve a complete understanding of crosslinguistic influence in contact situations, both linguistic and non-linguistic factors have to be considered in a unified analysis of the phenomenon. For Weinreich (1953), non-linguistic or non-structural factors that he deemed important include psychological factors at the individual-level like relative proficiency in each language and attitudes toward each language, and sociocultural factors at the societal level like size of bilingual community and tolerance or intolerance to language mixing. As for linguistic or structural factors, Weinreich (1953) examined crosslinguistic influence from three domains – phonic, grammatical, and lexical, each with their own unique set of structural factors.

This study will adopt Weinreich's (1953) bifurcation of structural and non-structural aspects of crosslinguistic influence in essence. However, changes will be made to the labels of 'structural' and 'non-structural'. The label of 'structural' is changed to 'linguistic' and the label of 'non-structural' is changed to 'social' in this study. The label of 'social' is an appropriate one because individual psychological factors are intertwined with social factors since all human beings are to varying degrees, shaped by societal forces. As a starting point for a systematic study of the role of both social and linguistic factors in crosslinguistic influence in language contact situations, a general framework is proposed in this study (see Figure 3.1).

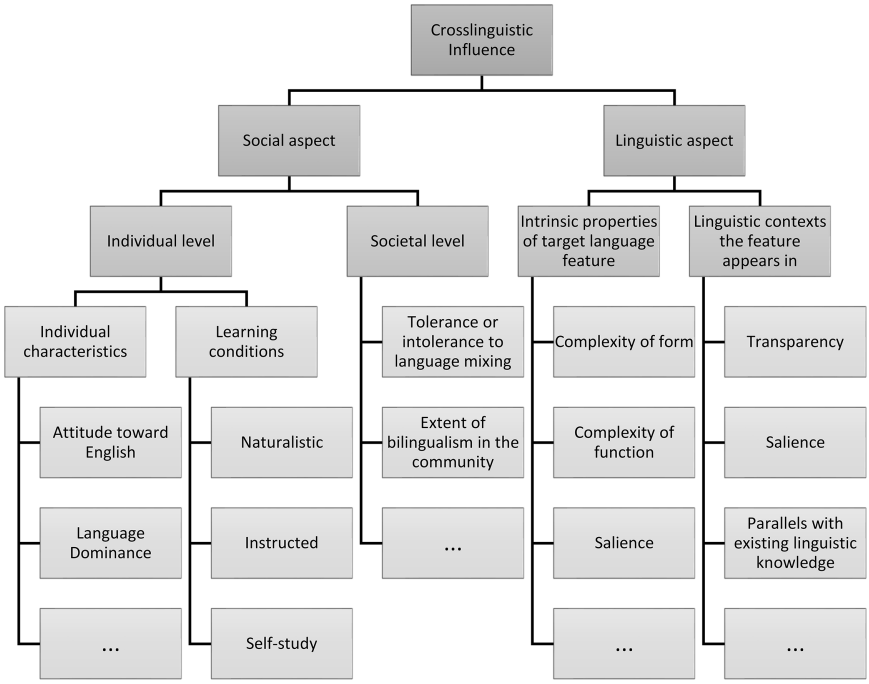

Figure 3.1 General framework for the study of crosslinguistic influence in language contact situations

Figure 3.1 shows a general framework for the study of crosslinguistic influence in language contact situations. The figure incorporates parts of Housen and Simoens' (2016: 164) taxonomy of second language difficulty figure and is a graphical representation of how the phenomenon of crosslinguistic influence is a result of the interaction between various social and linguistic factors. As shown in Figure 3.1, the social aspect of crosslinguistic influence can be further divided into 'individual level' and 'societal level'. At the individual level, attitudes toward English and language dominance are some individual characteristics that will affect the extent to which an individual is affected by crosslinguistic influence. Additionally, the way in which an individual learns a language will also affect the extent of crosslinguistic influence an individual exhibit. Presumably, someone who is instructed or learned a language in the classroom will tend to make less 'errors' that are a result of crosslinguistic influence. At the societal level, how tolerant a speech community is to language mixing and the extent of bilingualism in the speech community will affect the extent to which individuals exhibit crosslinguistic influence. On the other hand, the linguistic aspect of crosslinguistic influence can also be further divided into two separate categories – intrinsic properties of the target language feature and the linguistic contexts that the feature

appears in. With regard to the intrinsic properties of the linguistic feature, the complexity of the form or function of the target language feature in relation to the individual's existing linguistic knowledge will determine the extent of negative transfer that is observable. For instance, if the function of a feature is complicated to the learner, he or she will most likely fall back on his or her existing linguistic knowledge, thereby increasing the extent of observable crosslinguistic influence. Another intrinsic property of a linguistic feature is its perceptual salience, and an example of a feature that is not perceptually salient is the past tense marker in English, which is usually a /t/ or a /d/ at the end of a verb. Regarding the linguistic contexts that a feature appears in, examples of linguistic factors under this category include transparency, salience, and parallels with existing linguistic knowledge. As 'salience' is a concept that is difficult to pinpoint, different researchers have different ways of defining it (see Gass and Behney 2018) for an overview). A possible example of a salient feature is one that is frequently used in a prominent syntactic position like the beginning of a sentence. For example, the temporal adverb *yesterday*. On the other hand, a transparent feature is one where the meaning or function of the feature is clear and corresponds to a single form. For example, the superlative marker *– est* (Housen and Simoens 2016). The more salient or transparent a feature is, the less likely there will be crosslinguistic influence. Lastly, parallels with existing linguistic knowledge, which is the focus of this study, will make it more likely for crosslinguistic influence to occur. For instance, *follow* and 跟 *gēn* 'follow' in Mandarin Chinese are similar in the sense that they can both mean 'to walk behind someone'. However, Chinese *gēn* 'follow' also has a more abstract sense of accompanying someone to some place, and this meaning is transferred into Colloquial Singapore English because of their overlapping usage in certain linguistic contexts.

In what follows, we will delve deeper into the different social and linguistic factors that will be examined in this study of morphological marking in Colloquial Singapore English. For the social aspect, we will look at the way in which concepts like language dominance and attitudes toward English can be investigated and operationalized through the use of questionnaires. As for the linguistic aspect, details about the sociolinguistic interview process and background information of the interviewees that participated in this study will be given. Additionally, the concept of parallel constructions, which is a concept that will appear throughout the book, will be introduced. Lastly, suggestions for the specific types of statistical methods that can integrate both social and linguistic factors into a single analysis will be provided.

Social aspect

Although the two individual-level social factors that are the primary focus of this study are English language dominance and attitude toward the English language, the questionnaires introduced here are not language specific and are designed to measure and determine a bilingual's dominant language and his or her attitude toward any languages that he or she may know.

Language dominance

In the field of bilingualism and second language acquisition several methods have been proposed to measure and determine language dominance (see Silva-Corvalan and Treffers-Daller 2016 for an overview). Examples of other ways of determining an individual's language dominance include proficiency tests, lexical diversity, and mean utterance length. In this study, questionnaires are used to determine an individual's language dominance because of several reasons. First, the design of the questionnaire is theoretically sound. Second, it is easy to administer a questionnaire after the completion of a sociolinguistic interview. Third, it is less time-consuming for the participant to complete a questionnaire as compared to a proficiency test.

The language dominance questionnaire consists of two sections. Personal information of participants is collected at the beginning of the questionnaire. This includes a participant's name, age, gender, occupation, and email address. Following which, the participant will be asked to complete all two sections of the questionnaire. The first section collects information about the ages when a participant first started speaking a particular language and their own judgments of their proficiency levels in the various languages that they speak (see Figure 3.2).

The second section collects information about how often participants use a particular language based on their familiarity with an interlocutor, and also how often

Questions to be answered:

- In your opinion, what is your language proficiency (speaking) in ...

	Name of Language	**Proficiency level (speaking)**
Language 1		
Language 2		
Language 3		

- I started speaking Language 1 at the age of _____
- I started speaking Language 2 at the age of _____
- I started speaking Language 3 at the age of _____
- Other languages I know include: _____

Figure 3.2 Snapshot of Section 1 of the language dominance questionnaire

they use a particular language in a more formal setting like school or work (see Figure 3.3).

After the collection of qualitative data from the questionnaire is complete, a triangulation of three different factors will enable us to determine the dominant language of each participant. The first factor is the age that the participant started speaking a certain language; the second factor is the relative proficiency levels of the different languages a participant knows; the last factor is how often a participant uses a particular language. The consideration of all three factors is based on the understanding that language dominance is "a relative relationship of control or influence between the two languages of bilinguals" (Montrul 2016: 16), and comprises three different aspects. Montrul (2016) considers language dominance as consisting of three components: (1) linguistic proficiency, which includes factors like reading ability and fluency; (2) input and use, which includes factors like the amount of language input and the degree of language use; and (3) biographical variables, which includes factors like acquisition age and languages used in the community.

Participants that are determined to be English language-dominant are those who begin speaking English before the age of five, rate their proficiency level of English at a higher level than their other language or languages, and use English

Questions to be answered:

How often do you use a particular language in the following contexts:

	Language 1	**Language 2**	**Language 3**	**Others**
With close family				
With close/good friends				
With acquaintances that you do not know very well				
With strangers				
At School or Work				

Additional comments: Please provide more details if necessary. For example, if you will speak Tamil to an Indian stranger and Mandarin to a Chinese stranger.

Figure 3.3 Snapshot of Section 2 of the language dominance questionnaire

as a primary means of communication with other people. On the contrary, participants who are determined to be non-English language-dominant are those who have another language that fits the three criteria of being spoken before the age of five, rated higher than other languages in terms of proficiency level, and being used predominantly in everyday conversations. Lastly, participants who are determined to be balanced bilinguals are those who do not have a clear indication that any of the languages they know is dominant. For example, a balanced bilingual is an individual who begins speaking both languages before the age of five, rates both languages as equally proficient, and speaks more English in the school or work domain but more of the ethnic language in the home domain or with people with whom he or she is most familiar.

Attitude toward different languages

Like the language dominance questionnaire, personal information is collected at the beginning of the questionnaire. After they have provided their personal information, the participant will then be asked to complete all two sections of the questionnaire.

The first section of the language attitude questionnaire used in this study is based on Lasagabaster and Huguet's (2007) questionnaire which they used to examine the language attitudes of people in nine European bilingual contexts. In order to determine an individual's attitude toward a particular language, he or she will be asked to respond to ten hypothetical questions using a five-point Likert scale (see Figure 3.4). The five points on the Likert scale are 'strongly agree', 'agree', 'neutral', 'disagree', and 'strongly disagree' and each point corresponds to a numerical score. A 'strongly agree' response is worth 100 points; an 'agree' response is worth 75 points; a 'neutral' response is worth 50 points; a 'disagree' response is worth 25 points; and a 'strongly disagree' response worth no points. If the average score for all ten questions of a participant falls between 0 and 33.333, the participant will be categorized as having an unfavorable attitude toward that language; if the average score falls between 33.334 and 66.666, the participant will be categorized as having a neutral attitude toward that language; lastly, if the average score falls between 66.667 and 100, the participant will be categorized as having a favorable attitude toward that language.

The second section collects qualitative information about participants' opinions of common languages spoken in Singapore (see Figure 3.5).

To conclude, questionnaires are a useful tool to measure and determine an individual's dominant language and language attitudes, and they can serve as a non-time-consuming complement to sociolinguistic interviews, which will provide us with rich sociolinguistic information about an individual.

Linguistic aspect

To investigate the role of linguistic factors like perceptual salience or priming in crosslinguistic influence, written or spoken data of a contact language variety is

Here are some statements about Language 1 or your first language. Please say whether you agree or disagree with these statements. There are no right or wrong answers. Please be as honest as possible. Answer with one of the following:

SA = Strongly Agree

A = Agree

N = Neither Agree Nor Disagree

D = Disagree

SD = Strongly Disagree

A.	I like hearing **Language 1** spoken	SA A N D SD
B.	**Language 1** should be taught to everyone in Singapore	SA A N D SD
C.	I like speaking **Language 1**	SA A N D SD
D.	**Language 1** is an easy language to learn	SA A N D SD
E.	There are not more useful languages to learn than **Language 1**	SA A N D SD
F.	I prefer to be taught in **Language 1**	SA A N D SD
G.	Learning **Language 1** enriches my cultural knowledge	SA A N D SD
H.	I would not mind marrying someone who only speaks **Language 1**	SA A N D SD
I.	**Language 1** is a language worth learning	SA A N D SD
J.	If I have children, I would like them to be speaking **Language 1** regardless of other languages they may know	SA A N D SD

Comments or qualifications to answers given above:

_____

_____

Figure 3.4 Snapshot of Section 1 of the language attitude questionnaire

Please answer the following section truthfully, your responses are confidential and will not be shared with anyone.

1. What do you think of the Chinese language?

_____

_____

2. What do you think of the Malay language?

_____

_____

3. What do you think of the Tamil language?

_____

_____

Figure 3.5 Snapshot of Section 2 of the language attitude questionnaire

required and one way to obtain spoken data is through sociolinguistic interviews. In this section, details about the sociolinguistic interview process and background information of the participating interviewees will be provided. Additionally, an important linguistic factor – the presence of parallel constructions between two languages, will be introduced in this section.

Linguistic data from sociolinguistic interviews

By combining the advantages and minimizing the disadvantages of elicitation and observational techniques of data gathering, sociolinguistic interviews have become the primary data-gathering tool of variationist sociolinguists (Schilling 2013). A sociolinguistic interview allows a researcher to elicit a large amount of casual speech in a relatively short amount of time with a set of carefully-designed questions that revolve around different topics ranging from an interviewee's elementary school life to his or her thoughts on the major changes that had happened in the community. Each topic or module consists of several questions and the interviewer is free to move from one module to the next and back again depending on how the conversation is going (Schilling 2013). In this study the modules used for the sociolinguistic interview are modified to resonate with Singaporeans and an additional 'danger of death' question is also included, as such emotionally-charged questions are believed to be able to elicit truly vernacular speech from interviewees (see Figure 3.6).

A total of 1288 minutes' (21 hours and 28 minutes) worth of spoken data was collected through sociolinguistic interviews with twenty-four participants. The recordings were made with a Zoom H2 Handy Portable Stereo Recorder and an Audio-Technica ATR-3350 Lavalier Omnidirectional Condenser Microphone, and all recordings were stored as Microsoft waveform audio format (.wav) for easy accessibility. With one to three wave files per interviewee, there are a total of thirty-one wave files altogether, amounting to approximately 18.2 GB of disk space.

To obtain a representative sample of the larger speech community, the interviewees consist of a balanced number of people from the following three social categories: age, gender, and ethnicity. With regard to the category of 'age', eleven participants are above the age of fifty while thirteen participants are under the age of fifty. The division of these two categories is based on whether the participant attended school after 1966, the year the bilingual education policy was implemented. With regard to the category of 'gender' or biological gender, there are twelve male participants and twelve female participants. Lastly, with regard to the category of 'ethnicity', twelve participants are Chinese, eight participants are Malay, and four participants are Tamil. This is representative of the demographics of Singapore, with the Chinese as the majority followed by Malays and finally Tamils. Table 3.1 provides more background information about each individual participant.

The twenty-four participants in the sociolinguistic interviews were recruited through the personal contacts of the interviewer's friends and family. More

C. Singapore: Local orientation

1. Do you think Singapore is a good place to live? Why / Why not?

(You think Singapore is a good place to live? Why leh?)

2. Have there been major changes in this town that you've noticed during your time here?

(You remember any big changes to Singapore?)

3. Are there particular times you remember when something happened that affected your life in Singapore?

(You remember anything happen last time that affect your life in Singapore?)

4. Do you feel like the makeup of the people in Singapore has changed throughout your lifetime? In what ways?

(Do you feel that the makeup of people in Singapore has changed? How so?)

5. What about kinds of institutions that are important to people in the area and that really shape the city? For example, are there churches, local advocacy groups?

(What kinds of organizations are important and change the city? For example, churches, temples, mosques, clan associations?)

6. Do you attend a church around here?

(Do you go to church, temple, mosque?)

7. Was Singapore hit hard by the general economic downturn? Do you know someone who was affected? How about you?

(Now economy very bad. Do you know someone who was affected? You leh?)

8. For older folk: What was life like in the past? What was your typical day like?

9. Do you have any interesting stories to tell?

Figure 3.6 Snapshot of sociolinguistic interview questions

specifically the participants are the students, colleagues, friends, neighbors, or family members of the interviewer's friends and family, and they either do not know the interviewer personally or have only met the interviewer a few times prior to the interview. All but one middle-aged participant are bilinguals who learned English after the age of eight. On the contrary, all young adult participants are bilinguals who learned English before the age of five. This difference between the age groups corresponds to a language shift situation that happened after Singapore implemented the bilingual education policy in 1966, where English became increasingly used in the home domain (see Chapter 2 for more details).

Parallel constructions

The primary mechanism behind crosslinguistic influence is the presence of parallel constructions across different languages that are connected as a single semantic network in the multilingual mind. The concept of 'construction' refers

Table 3.1 Background information of research participants

	Ethnicity	*Age*	*Gender*	*Educational level*	*Languages spoken (/= learned simultaneously)*	*Dominant language*
1	Chinese	18	F	undergraduate	**L1:** English/Mandarin **L2:** Southern Min	English
2	Chinese	22	F	undergraduate	**L1:** Teochew/Mandarin/ English	Mandarin/ English
3	Chinese	22	F	undergraduate	**L1:** English/Mandarin	English
4	Chinese	24	M	undergraduate	**L1:** English/Mandarin **L2:** Southern Min	English
5	Chinese	25	M	undergraduate	**L1:** English/Mandarin	English
6	Chinese	28	M	ITE certificate	**L1:** English/Mandarin **L2:** Southern Min	English
7	Chinese	55	M	secondary school	**L1:** Southern Min **L2:** English/Mandarin **L3:** Malay	Mandarin/ Southern Min
8	Chinese	56	F	secondary school	**L1:** Teochew **L2:** English/Mandarin	English
9	Chinese	57	F	secondary school	**L1:** Teochew **L2:** English/Mandarin	Mandarin/ Teochew
10	Chinese	58	M	secondary school	**L1:** Southern Min **L2:** English/Mandarin **L3:** Malay	Southern Min
11	Chinese	61	F	secondary school	**L1:** Henghwa **L2:** English/Mandarin **L3:** Cantonese	Mandarin
12	Chinese	65	M	secondary school	**L1:** Cantonese **L2:** English/Mandarin **L3:** Malay	Cantonese/ English
13	Malay	28	M	polytechnic	**L1:** Malay **L2:** English **L3:** Arabic	Malay/English
14	Malay	30	F	undergraduate	**L1:** Malay/English **L2:** Mandarin	Malay/English
15	Malay	30	F	postgraduate	**L1:** Malay/English	Malay/English
16	Malay	35	M	undergraduate	**L1:** Malay **L2:** English **L3:** Mandarin	Malay/English
17	Malay	39	F	polytechnic	**L1:** Malay/English	English
18	Malay	53	M	postgraduate	**L1:** Malay **L2:** English	English
19	Malay	58	F	secondary school	**L1:** Malay **L2:** English	Malay
20	Malay	61	M	secondary school	**L1:** Malay/English **L2:** Southern Min	Malay/English
21	Tamil	33	F	undergraduate	**L1:** Tamil **L2:** English **L3:** Malay	English
22	Tamil	37	M	undergraduate	**L1:** Tamil/English **L2:** Malay	English/Tamil
23	Tamil	54	M	secondary school	**L1:** Tamil **L2:** English **L3:** Malay	English Tamil
24	Tamil	65	F	secondary school	**L1:** Tamil **L2:** English/ Malay	English

to conventionalized form-meaning pairings that contain the following features: phonology, morphology, syntax, semantics, pragmatics, and discourse function (Traugott and Trousdale 2013: 8). Examples (1a) and (1b) illustrate a pair of parallel constructions in Colloquial Singapore English and Mandarin Chinese (or Modern Standard Chinese). That is to say, both the *one* construction in (1a) and the *de* construction in (1b) can be used in exactly the same context. The term 'context' here is used in the same manner as it is used in studies of construction grammar and grammaticalization, referring to the "linguistic co-text broadly construed as linguistic environment, including syntax, morphology, phonology, semantics, pragmatic inference, mode (written/spoken), and sometimes wider discourse and sociolinguistic contexts" (Traugott and Trousdale 2013: 196).

(1a) I like the blue **one**.

(1b)

我	喜欢	蓝	的
wǒ	xǐhuan	lán	de
1SG	like	blue	NMZ

'I like the blue one.'

As the *one* construction in (1a) and the *de* construction in (1b) are highly similar in terms of form and function, they are able to appear in identical linguistic contexts. Syntactically, both *one* and *de* follows an adjective, in this case, *blue* or *lán*, to form a noun phrase. Semantically, the noun phrase formed by *one* and *de* is a referent that refers to something blue in the previous discourse or in the real world.

Parallel constructions that can appear in the same linguistic context are presumably stored in the bilingual brain as a single semantic network of associated constructions. Psycholinguistic studies like Hartsuiker et al. (2004) have found that certain representations of a bilingual are shared regardless of the language, and they form a complex network of constructions that are associated with one another (Traugott and Trousdale 2013; Travis et al. 2017), most likely at a semantic level (Wasserscheidt 2015). Furthermore, since the languages of a bilingual can never be truly deactivated or suppressed (Grosjean 2010), the deactivated construction of a dormant language connected in a single semantic network may still have an effect on the final output that is produced. Figure 3.7 is a graphic explanation of how a Chinese-English bilingual, when compared to English monolinguals, is more likely to use the *one* construction as a result of crosslinguistic influence. As shown in the figure, when a Chinese-English bilingual wishes to refer to a blue shirt in an English-speaking situation, the *one* construction is a possibility that will be activated in the brain. In addition, the Chinese counterpart of *lán de* and the lexical construction of *blue shirt* are also activated as these can also be said in the same situation. Since the *one* construction and *de* construction are associated in the mind at a semantic level (Wasserscheidt 2015), the overall activation level of associational network one will be higher compared to associational network two, in this case, the lexical construction of *blue shirt*. As such, the most likely final output would be *blue one* rather than *blue shirt*.[1] The construction of 'adjective + *one*' is thus more common in the speech of

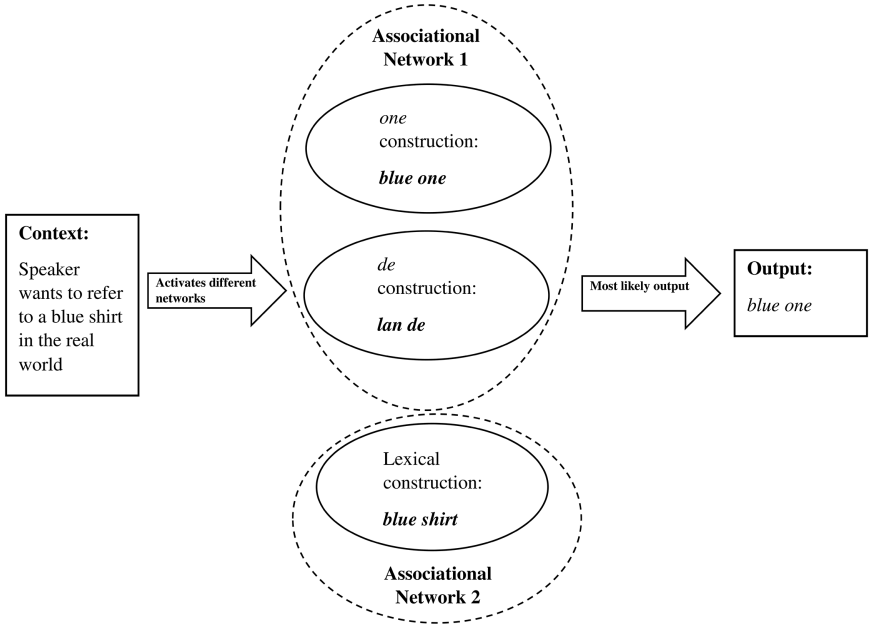

Figure 3.7 Priming of *one* construction in the mind of a Chinese-English bilingual

Chinese-English bilinguals in Singapore compared to other bilinguals. Figure 3.7 represents a possible psycholinguistic explanation for understanding the role of parallel constructions in the bilingual mind and how they are able to induce crosslinguistic influence.

Statistical methods – Bringing social and linguistic together

As statistical methods are constantly evolving, and there are many statistical guidebooks available for linguists, we will not delve into the finer details of statistical analysis here; rather, this section will introduce some considerations about the statistical method or methods that should be applied depending on the type of data a reader might be interested in analyzing. The three types of data discussed here include dichotomous or binary data, count data, and grouped data.

Binary data

The response or dependent variable for binary data has only two possible values that can be coded as '1' and '0'. For example, whether the past tense marking of a verb is present or absent in a past context. For binary data, a suitable statistical tool is the use of logistic regressions.

Table 3.2 Organization of binary data in an Excel spreadsheet

Value	*Speaker*	*Word*	*Preceding phonological environment*	*Following phonological environment*	*Lexical aspect*	*Age*	*Ethnicity*
0	ABC	pass	C	V	Achievement	Middle-aged	Chinese
1	ABC	learn	C	C	Activity	Middle-aged	Chinese

In this study Rbrul is used to implement logistic regressions on the presence or absence of morphological marking in Colloquial Singapore English. Rbrul works in an R environment and combines the strengths of Goldvarb and R, thereby allowing users to not only connect to the wider community of quantitative linguists who use SPSS and R, but also allows users to incorporate random effects into their statistical modeling. An example of a random effect is the 'individual speaker' as some individuals might favor or disfavor a particular linguistic form, over and above what the social and linguistic predictors in the statistical model would predict. Therefore, incorporating random effects in the statistical model helps to solve the problem of overestimating the significance of predictors in a model (Johnson 2009).

There are several advantages to using Rbrul for logistic regressions. First, the interface for Rbrul is user-friendly and no knowledge of coding is required to use Rbrul. Second, Rbrul automatically selects the correct regression type depending on the type of response variable and whether random effects are incorporated into the statistical model. Third, Rbrul is able to analyze unbalanced data. Unbalanced data refers to having an unequal number of observations in certain group combinations. For instance, a study may have more observations of plural marking from female participants than male participants. Lastly, performing logistic regressions using Rbrul, as is the case in using R, not only allows the inclusion of many social or linguistic predictor variables that can either be continuous or discrete data, it also allows the incorporation of random effects.

As Rbrul works in an R environment, you would first need to download R and RStudio before you can use Rbrul. Rbrul can be downloaded at the following link: www.danielezrajohnson.com/rbrul.html. Moreover, guides to using Rbrul can also be found at this website. As Rbrul is easy to use, the only thing that probably needs mention is the way in which the data has to be organized before it can be uploaded and analyzed by Rbrul. The binary data must be organized in a tabular form using Excel spreadsheets (see Table 3.2) and then saved as a. csv (comma-separated values) file.

Count data

The dependent variable for count data must be either zero or a number that is discrete and positive. An example of count data would be the number of tokens of colloquial *got* a participant produced in a single sociolinguistic interview session.

Poisson regressions can be used to analyze count data like the number of tokens of a linguistic feature a participant produces in a sociolinguistic interview. There are several advantages to using Poisson regressions for count data. First, like Rbrul, Poisson regressions can also handle unbalanced data. Second, performing Poisson regressions allow the inclusion of a variety of social or linguistic predictor variables that can either be continuous or discrete data. Lastly, Poisson regressions allow the incorporation of random effects.

In order to use Poisson regressions in R, the 'brms' package has to be installed first. Additionally, just like Rbrul, the count data must be organized in a tabular form like in Table 3.2 and saved as a. csv file. Poisson regressions can be applied in R using the following code:

(2) MyData ← read.csv(file = "C:/Users/ABC/Desktop/Filename.csv", header= TRUE, sep=",")

Example (2) is the code that instructs R to read the. csv file and create a data frame named 'MyData' based on the information in the file. R code or functions can then be applied to the data frame for statistical analysis.

(3) library(brms)

Example (3) is the code that instructs R to load the 'brms' package. This package contains R code that allows R to run Poisson regressions.

(4a) M1 ← brm(Tokens ~ Ethnicity + Dominance + (1|Speaker), data = MyData, family = 'Poisson')
(4b) M1 ← brm(Tokens ~ Ethnicity + Attitude * Dominance, data = MyData, family = 'Poisson')

Examples (4a) and (4b) are code that allow the user to analyze count data using Poisson regressions. The code in Example (4a) shows an additive model named 'M1' that has two predictor variables, 'ethnicity' and 'English language dominance'. It also has 'speaker' as a random effect. On the other hand, the code in (4b) shows an additive model also named 'M1' that has an interaction term indicated by '*'. An interaction term means that the interaction between 'attitude toward English' and 'English language dominance' will be included in the statistical model.

(5a) summary(M1, waic = TRUE)
(5b) plot(marginal_effects(M1, probs = c(0.05, 0.95)))

Examples (5a) and (5b) are code that enable the user to analyze the results of Poisson regressions implemented by code similar to those in (4a) and (4b). The code in Example (5a) gives the user a summary of the fitted model. This summary includes a list of the parameter estimates, the standard errors, and the 95%

confidence intervals of the different predictors in the statistical model. The code in Example (5b) gives the user a graphical representation of the 95% confidence intervals of each predictor in the model.

Grouped data

The last type of data a researcher might be interested in analyzing is grouped data. 2x2 Chi-squared tests are useful for researchers that want to find out if two groups differ quantitatively in their use of certain linguistic features. For example, whether the frequency of discourse particle *lor* differs between male and female speakers.

However, there are several limitations to 2x2 Chi-squared tests. First, they can only be used to analyze count data that is divided into different categories. Second, the statistical analysis is only limited to the categories that are examined, as there is no way to include additional social or linguistic predictor variables in the analysis. Third, there is also no way to include random effects into the statistical analysis.

2x2 Chi-squared tests can be computed in R with the following code:

(6) table ← matrix(c(8, 2, 292, 122), byrow = TRUE, 2, 2)

Example (6) is the code that instructs R to create a two by two table named 'table' that has the values of 8 and 2 in the first row, and the values of 292 and 122 in the second row.

(7a) chisq.test(table)
(7b) chisq.test(table, correct = FALSE)

Examples (7a) and (7b) are code that allow the user to analyze grouped data like the table in (5) with the use of 2x2 Chi-squared tests. The code in (7a) allows the user to apply a Pearson's 2x2 Chi-squared test with Yates' continuity correction to the data, whereas the code in (7b) allows the user to apply a Pearson's 2x2 Chi-squared test without Yates' continuity correction to the data.

Note

1 The final output of the speaker is also dependent on other factors like recency. For example, the interlocutor using the word *shirt* in a question like *which shirt do you like?* in a previous conversational turn.

References

Gass, Susan M., and Jennifer Behney (eds.). 2018. *Salience in second-language acquisition*. New York, NY: Routledge.

Grosjean, François. 2010. *Multilingual: Life and reality*. Cambridge, MA: Harvard University Press.

Hartsuiker, Robert J., Martin J. Pickering, and Eline Veltkamp. 2004. Is syntax separate or shared between languages? Cross-linguistic syntactic priming in Spanish-English multilinguals. *Psychological Science* 15. 409–414.

Housen, Alex, and Simoens Hannelore. 2016. Introduction: Cognitive perspectives on difficulty and complexity in L2 acquisition. *Studies in Second Language Acquisition* 38(2). 163–175.

Johnson, Daniel Ezra. 2009. Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass* 3(1). 359–383.

Lasagabaster, David, and Ángel Huguet. 2007. *Multilingualism in European bilingual contexts: Language use and attitudes*. Clevedon; England: Multilingual Matters.

Montrul, Silvina. (2016). Dominance and proficiency in second language acquisition and bilingualism. In Carmen Silva-Corvalán and Jeanine Traffers-Dallers (eds.), *Measuring dominance in bilingualism*, 15–35. Cambridge: Cambridge University Press.

Schilling, Natalie. 2013. *Sociolinguistic fieldwork*. Cambridge; New York, NY: Cambridge University Press.

Silva-Corvalan, Carmen, and Jeanine Treffers-Daller (eds.). 2016. *Language dominance inbilinguals: Issues in measurement and operationalization*. Cambridge: Cambridge University Press.

Traugott, Elizabeth Closs, and Graeme Trousdale. 2013. *Constructionalization and constructional changes*. Oxford: Oxford University Press.

Travis, Catherine E., Evan, Kidd, and Torres Cacoullos Rena. 2017. Cross-language priming: A view from multilingual speech. *Bilingualism: Language and Cognition* 20(2). 283–298.

Wasserscheidt, Philipp. 2015. Constructions do not cross languages: On cross-linguistic generalizations of constructions. *Constructions and Frames* 6(2). 305–337.

Weinreich, Uriel. 1953. *Languages in contact, findings and problems*. New York, NY: Linguistic Circle of New York.

4 Missing you – Past tense and plural marking

Although the optionality of morphology on nouns and verbs is often described in the literature on Colloquial Singapore English (see Platt and Weber 1980; Lim 2004; Deterding 2007; Leimgruber 2013 among others), we still lack a comprehensive account of how morphological marking in Colloquial Singapore English varies according to social and linguistic variables. In this chapter we will be examining the variability of past tense marking and plural marking in the interview data collected from twenty-four Singaporeans (see Chapter 3 for social information of the interviewees). Examples (1) and (2) below show the absence of past tense morphology and plural morphology respectively.

(1) Last time, I *work* in factory ah, General Electric.

(Malay Female, 58 years old)

(2) A lot of *student* just left, they just left (the examination venue).

(Chinese Male, 24 years old)

In Example (1), the verb *work* is unmarked for past even though it is used in a past context as indicated by *last time*. In Example (2), the noun *student* is unmarked for plurality even though it is referring to more than one student as indicated by *a lot*. All in all, 51.44 % of past main verbs analyzed in the interview data are unmarked for past while 27.84 % of nouns that require a plural marker are unmarked in the interview data. On the surface, the variability of past tense and plural morphology in the interview data may seem random and chaotic, however, a substantial amount of the variation can be explained by taking into consideration influence from a combination of linguistic and social factors.

The rest of this chapter is organized as follows, first, the way in which ethnic languages in the language ecology express the concepts of past and plurality, either through morphological or lexical means, will be described. Second, an explanation of the method for selecting potential contexts of past tense and plural morphology for data analysis will be given, followed by a description of the various linguistic and social factors that are investigated. Third, a common sociolinguistic tool, Varbrul (variable rules analysis), will be used to determine the different strengths of linguistic and social factors in their ability to predict

the presence or absence of past tense and plural morphology. The results of the multivariate analyses on the data will then be presented and a discussion of how they enhance our understanding of the linguistic and social processes involved in crosslinguistic influence and the variation of morphological marking will follow.

Expressing the concepts of past and plurality in the ethnic languages

In terms of expressing past and plurality, the languages of Chinese, Malay, and Tamil fall into two distinct groups based on whether past and plurality are morphologically expressed in the language. Tamil is by itself a group where grammatical categories exist for past and plurality, while Chinese and Malay are in another group where past and plurality are not expressed morphologically. In the following sub-sections, we will examine how past and plurality are expressed in each separate group. Malay and Tamil examples are provided by informants, unless otherwise stated.

Chinese and Malay

As there is no grammatical past tense in either the Chinese[1] or the Malay languages, both languages indicate events as occurring in the past through the use of pragmatic or lexical means. Pragmatically, a speaker can make use of linguistic context, or the use of sequential ordering of events in speech to indicate a past event; lexically, a speaker can use temporal adverbs like *yesterday* or *last week*, or connectives like *and then* to indicate a past event. Examples (3a) and (3b) show the way in which a past event can be indicated by using a temporal adverb in Chinese and Malay respectively.

(3a)	他	昨天	看	了	一	部	电影
	tā	**zuótiān**	kàn	le	yī	bù	diànyǐng
	3SG	yesterday	see	PFV	one	CL	movie

'He watched a movie yesterday.'

(3b)	Dia	menonton	filem	**semalam**
	3SG	watch	film	yesterday

'He watched a movie yesterday.'

In (3a) and (3b), the hearer understands the event of watching a movie as happening in the past because of the temporal adverbs *zuótiān* 'yesterday' and *semalam* 'yesterday'. If no temporal adverbs are used, the hearer would have to rely on linguistic context to interpret whether an event happened in the past, is happening in the present or will happen in the future. Since there is no grammatical tense in Chinese or Malay, the form of the verb in both languages remains the same regardless of whether an event had already occurred, is currently occurring, or

will occur in the future. In other words, regardless of when event time is, the forms of *kàn* 'see' and *menonton* 'watch' in (3a) and (3b) will not change.

Although there is no grammatical tense in Chinese or Malay, both languages have markers that indicate aspect. Aspect is the "different ways of viewing the internal temporal constituency of a situation" (Comrie 1976: 3), and it is closely related to tense as they are ways in which languages describe events. There are two broad categories of aspect, namely perfective and imperfective. Generally speaking, perfective events are events that are completed at speech time while imperfective events are events that are still ongoing at speech time. In Chinese the perfective marker is verbal *le* (see Example (3a)) and in Malay, an example of a perfective marker[2] is *sudah* 'already'. As perfective events are completed, they are usually interpreted as occurring in the past, and the use of perfective markers is one of the lexical means in which the Chinese and Malay languages express the concept of past. The concept of aspect will be explored in greater detail when we examine Colloquial Singapore English *already* in Chapter 5.

With regard to plurality, nouns in both the Chinese and Malay languages are not inflected for the distinction between singular and plural as in English. As shown in (4a) and (4b), the same form of *niǎo* 'bird/s' or *burung* 'bird/s' can represent either a single bird or several birds.

(4a) 他 看到 了 鸟
tā kàndào le **niǎo**
3SG see PFV bird
'He saw a bird/birds.'

(4b) Dia melihat **burung** itu
3SG see bird DEM
'He saw a bird/birds.'

Chinese and Malay speakers have several options for indicating plurality. They can make use of linguistic context, numerals (see Examples (4c) and (4d)) or quantifiers (see Examples (4e) and (4f)) like *many* and *a few* to express plurality.

(4c) 他 买 了 三 本 书
tā mǎi le **sān** běn shū
3SG buy PFV three CL book
'He bought three books.'

(4d) Dia membeli **tiga** buku
3SG buy three book
'He bought three books.'

In (4c) and (4d), numerals *sān* 'three' in Chinese and *tiga* 'three' in Malay indicate the number of books that were bought.

(4e) 他 买 了 很多 书
tā mǎi le **hěnduō** shū
3SG buy PFV many book
'He bought many books.'

(4f) Dia membeli banyak buku
3SG buy **many** book
'He bought many books.'

In (4e) and (4f), quantifiers *hěnduō* 'many' in Chinese and *banyak* 'many' in Malay indicate that more than one book was bought.

Tamil

Unlike Chinese and Malay, Tamil has both grammatical past tense and grammatical plural. This does not mean that pragmatic or lexical ways of indicating past and plurality are absent in Tamil, it simply means that past tense and plurality must be marked whenever the situation requires it to be so, which is the same for English.

(5) அவன் கடிதம் எழுதினேன்
avaṉ kaṭitam eḻut-**iṉ**-ēṉ
3SG letter write-PST-PNG
'He wrote a letter.'

Example (5) illustrates how past tense is marked in the form of a verbal suffix in Tamil. Even though Tamil is an SOV language, it is similar to English in that both languages have grammatical tense. To indicate that an event has happened in the past or prior to speech time, a past tense marker will be added to the verb stem. In Example (5), the verb stem is *elut* and the past tense marker is *-in*. One way in which it differs from English is that an additional suffix appears after the tense marker to indicate person, number, and gender agreement with the grammatical subject. In Example (5), the suffix that indicates person, number, and gender is *-ēn*, and it is attached after the past tense marker *-in*. Another way in which past tense marking in Tamil differs from English is that the form of the past tense morpheme changes depending on the verb type and the phonological environment. Three underlying forms – /in/, /nt/, and /t/, interact with seven verb classes and the phonological environment to produce nine phonetic variants (see Wiltshire 1999 for more details).

With respect to plural marking, nouns in the Tamil language are also inflected for the distinction between singular and plural, which is just like in English.

(6a) அவன் புத்தகம் வாங்கினான்
avaṉ puttakam vāṅk-iṉ-āṉ
3SG book buy-PST-PNG
'He bought a book.'

(6b)	அவன்	மூன்று	புத்தகங்கள்	வாங்கினான்
	avaṉ	mūṉṟu	puttakaṅ-**kaḷ**	vāṅk-iṉ-āṉ
	3SG	three	book-PL	buy-PST-PNG

'He bought three books.'

Examples (6a) and (6b) illustrate how nouns in Tamil are inflected to indicate plurality. The plural suffix, *-kal*, is attached to the singular noun, *puttakam* 'book' in Example (6a), when the speaker wants to refer to three books as in Example (6b). Like English, uncountable nouns like *ariciyai* 'rice' have no distinction between singular or plural forms.

The variable context – What counts and what doesn't

In this section we will look at the variable contexts for past tense marking and plural marking. The variable context is the set of sentences where two or more variants are interchangeable or have the exact same meaning despite their different forms. For example, in Colloquial Singapore English, *He bought a book yesterday* is equivalent to *He buy a book yesterday*, where both the past tense form, *bought*, and the base form, *buy*, are interchangeable variants. It is necessary to precisely define the variable context for several reasons. First, it allows us to investigate the motivations behind the use of different variants in different situations. Second, it allows rough comparisons between different studies that define the variable context differently. Lastly, it allows the replication of similar future studies by other researchers.

The variable context for past tense marking

Previous studies of past tense marking (see Bickerton 1975; Patrick 1999; Rickford 1987; Singler 1990; Winford 1992 among others) have delineated the variable context in different ways. The variable context in the context of past tense marking refers to the absence or presence of past tense morphology. In our study, we follow the criteria set out in Poplack and Tagliamonte (2001), which gives the broadest possible definition of the variable context, thereby facilitating cross-variety comparisons. Their two criteria are reference to past time and instantiation of the past tense either as a regular *–ed*, a strong form, or a zero. Examples of zero form or base form usage in a past context are weak verbs *drop* and *ask* in (7) and *come* in (8).

(7) Then the bus driver just **drop** us there even though we **ask** him, 'Oh can you take us back to the bus interchange?'

(Chinese Female, 22 years old)

(8) Ah, waste matter collectors, where they **come** with a big lorry or van.

'The waste matter collectors always came in a big lorry or van.'
(Chinese Male, 64 years old)

Past time reference includes punctual past (see Example (9a)), past habitual (see Example (9b)), present perfect (see Example (9c)), or past perfect (see Example (9d)). The following examples of possible variable contexts are from the interview data.

(9a) Just yesterday I **met** with my primary school teacher

(Chinese Female, 22 years)

(9b) Quite often we **played** soccer in school.

(Chinese Male, 25 years)

(9c) I already **travel** a lot of places.

'I had already travelled to a lot of places.'
(Malay Male, 61 years)

(9d) Then after he **walked** away, she told her son in Tamil, 'Don't bother, just continue eating.'

'Then after he had walked away, she told her son in Tamil, 'Don't bother, just continue eating.'
(Tamil Female, 33 years)

Only main finite verbs with a past reference are included in the data analysis of this quantitative study. In other words, any non-temporal usage of past tense morphology is not included in the data analysis. Examples of non-temporal usage from the interview data include conditional or modal uses like Example (10a), counterfactuals like Example (10b), and possible or counterfactual conditions like Example (10c).

(10a) I **wouldn't** say they are that bad, you know.

(Malay Female, 39 years)

(10b) I **could** have been military police or something.

(Chinese Male, 25 years)

(10c) I hope you **enjoyed** my talk.

(Tamil Male, 54 years)

Other non-temporal usages include fixed expressions like (10d) or reported speech like (10e). Fixed expressions are determined based on whether other forms of inflection are possible with a particular meaning (Shirai and Andersen 1995). For example, *used* in the sentence *I think they're just used to it* cannot appear as other forms like *uses* or *using*, and is considered a fixed expression. Since fixed expressions and reported speech could be pre-fabricated chunks

that are stored in an individual's memory, they are excluded from the data analysis.

(10d) No, I **used** to study in the UK right.

(Malay Male, 53 years old)

(10e) Then my grandma said, 'Eh, they **come** back already.'

(Malay Male, 35 years old)

Lastly, ellipsis like (10f) and ambiguous verbs which can be interpreted as past or non-past like (10g), are also excluded from the analysis.

(10f) No I **didn't** (ask for it).

(Chinese Male, 25 years old)

(10g) So instead of English we **take** language arts which is a mixture of philosophy.

(Chinese Male, 24 years old)

The *take* in (10g) can be interpreted as either referring to the interviewee's particular cohort, or more generally, to past and current students who took or are taking language arts. Additionally, restricting the analysis to main finite verbs mean that auxiliary verbs like (10h) are excluded from the analysis.

(10h) I went to the same company as a recruit and then **was** posted back there.

(Chinese Male, 25 years)

Lastly, as copula *be* can be omitted in Colloquial Singapore English, it is also not included in the analysis as there are three possible variants (past tense form, base form, and null form) for this feature and not two variants like the other verbs. Example (10i) is an example of copula *be* in the interview data.

(10i) I remember, like the response **was** overwhelming.

(Chinese Female, 18 years)

In terms of phonological environment, if a weak verb is followed by the consonants /t/ or /d/ like (11), it will not be included in the data analysis because it is difficult to determine if the verb is truly marked for past tense or it is a phonological effect of the following consonant.

(11) I **join** dancing, and I play all sorts of games.

'I joined the dance club and I played all sorts of games.'
(Chinese Female, 55 years old)

The verb *join* in Example (11) may sound like it is marked for past simply because the following consonant is a /d/.

If an interviewee repeats a verb multiple times like in Example (12), each repeated verb is considered a token in the analysis.

(12) Yah, we **travel**, we **traveled** quite often together.

(Malay Male, 35 years old)

In (12), both *travel* and *traveled* are included in the data analysis where *travel* is included as an unmarked token and *traveled* is included as a marked token.

To sum up, the variable contexts selected for quantitative analysis need to fulfill two criteria. First, reference to past time. Second, instantiation of the past tense form. In addition, it is necessary to make sure that all the contexts belonged to the same envelope of variation, where an unmarked form is the same way of saying what the marked form meant (Hackert 2008). When the past tense is instantiated as a regular *–ed* or strong form, it is coded as 1. When the past tense is instantiated as a zero, it is coded as 0. In other words, presence of the past tense form is coded as 1 and absence is coded as 0 in the data.

The variable context for plural marking

The variable context for plural marking is defined as the set of countable nouns that should be marked by the plural marker /s/, regardless of whether they co-occur with an overt plural marker (Tagliamonte et al. 1997). More specifically, the two criteria are plural reference of a countable noun and instantiation of the plural marker either as an /s/, including all its phonological variants, or a zero. Irregular plural nouns like *women* and *fish* are not included in the data analysis. An example of a zero form or base form usage of a noun with a plural reference is *opportunity* in (13).

(13) A lot of **opportunity**.

(Tamil Male, 37 years old)

Like other variation studies, nouns that are ambiguous between plural or singular reference like (14), and nouns that are categorically marked or unmarked for plurality like *in terms of* and *humanities*, are excluded from the statistical analysis.

(14) So it can be like literary theory as applied to some other **field**.

(Chinese Male, 25 years old)

In Example (14), *field* is ambiguous, as the speaker could either have a singular or plural reference in mind. In this example, he could be thinking about a particular field of study or several fields of study.

In terms of phonological environment, if a plural marker is followed by the consonant /s/ like (15), it will not be included in the data analysis because it will be difficult to determine if the noun is truly marked for plurality or it is simply a phonological effect of the following consonant.

(15) Then it'll be six **generations** so now it's five.

(Tamil Female, 65 years old)

Predictors examined in the statistical model

In this section the social and linguistic predictors for both past-tense marking and plural marking will be described.

Social and linguistic predictors for past tense marking

Using Rbrul (version 3.1.3), various social and linguistic predictors were included in mixed-effects logistic regressions performed separately on both weak and strong verbs. Weak syllabic verbs like *started* and *decided* are not examined in the data analysis as they behave similarly to strong verbs. The linguistic predictors for all verbs include grammatical aspect, lexical aspect, and priming. Additionally, for weak verbs, the preceding and following phonological environments will also be investigated. The social predictors in the statistical models include age, ethnicity, gender, education, attitude toward English, and dominance of English.

An important point to note is that the social and linguistic predictors investigated in this study are not meant to be all encompassing. Since incorporating all possible social and linguistic factors that have a statistically significant influence on the dependent variable into a single statistical analysis is neither possible nor necessary, what makes statistical analyses useful is their capability in determining the significance of particular social and linguistic factors that a researcher may be interested in analyzing. Such flexibility allows the use of a common methodology among researchers who work in different fields like contact linguistics and second language acquisition, thereby promoting and facilitating cross-study comparisons with regard to the phenomenon of crosslinguistic influence.

Linguistic

FOR ALL VERBS

(i) Priming Generally speaking, priming is the tendency for one thought to activate another thought in the mind. In this study of past tense morphology, a preceding past tense or zero form may activate the use of the same form in a following

sentence. For instance, a preceding marked past verb may prime the use of a past form in the following clause or sentence (see Example (16)).

(16) I already **left** Tiong Bahru, I **moved** further into Silat Road.

'I have left Tiong Bahru (name of place) and moved further up Silat Road.'
(Chinese Male, 64 years old)

In Example (16), the preceding past verb is *left* and the verb of interest is *moved*. In this case, *moved* will be coded as 'marked' because the preceding past verb is marked. If the preceding past verb is not within the previous 5 sentences or is in a separate conversational turn, the verb of interest will be coded as 'unmarked'. To sum up, if a preceding past verb is marked for past, for example, *told*, the verb of interest will be coded as 'marked'. On the other hand, if a preceding past verb is unmarked for past, for example, *tell*, the verb of interest will be coded as 'unmarked'.

(ii) Lexical aspect As mentioned previously, aspect is the "different ways of viewing the internal temporal constituency of a situation" (Comrie 1976: 3). Lexical aspect is defined as the type of situation that is expressed by a verb and its arguments (Smith 1997). Most commonly, situations are categorized into four main types: achievements, accomplishments, activities, and states. In this study, we adopt Shirai and Andersen's (1995: 749) procedures for determining lexical aspect.

Studies in language acquisition have shown that the development of past-tense morphology in both children (Bayley 1999; Shirai and Andersen 1995 among others) and second language learners (Bayley 1994; Shirai and Kurono 1998 among others) is influenced by lexical aspect. These studies have found that past-tense marking will begin with achievement-type and accomplishment-type verbs, before being extended to activity-type verbs and finally to stative verbs (Shirai and Andersen 1995). This is known as the aspect hypothesis. This study will investigate whether the aspect hypothesis applies to Colloquial Singapore English as it is a contact language that has its roots as a second language variety of English.

Following Shirai and Andersen's (1995: 749) procedures, if the situation a verb of interest and its arguments express is determined to be an 'achievement', the verb of interest will be coded as 'achievement'. The verbs of interest will be coded according to the four possible situation types, namely, achievements, accomplishments, activities, and states.

(iii) Grammatical aspect[3] Different from lexical aspect, grammatical aspect considers the entire sentence when determining the internal temporal constituency of a situation. Situations can be broadly categorized into either

perfective or imperfective. Perfective situations are situations that are understood to have occurred only once in the past. For example, *he ate at his mum's place at 4 p.m*. On the other hand, imperfective situations are situations that are understood as having occurred more than once in the past. For example, *he ate at his mum's place often*. As illustrated in these examples, even though both the verb *ate*, and its adjunct *at his mum's place*, is exactly the same in both examples, a different temporal adverb may cause it to be interpreted as either a perfective or an imperfective situation.

As previous studies of contact varieties found that imperfective situations tend to be unmarked for past, this study will investigate if grammatical aspect has an important role in shaping the variability of past tense marking in a contact language like Colloquial Singapore English.

In terms of the coding of the data, if the situation expressed by the sentence a verb of interest is in is understood to have occurred only once in the past, the verb of interest will be coded as 'perfective'. On the other hand, if the situation expressed by the sentence a verb of interest is in is understood to have occurred more than once in the past, the verb of interest will be coded as 'imperfective'.

FOR WEAK VERBS ONLY

(i) Preceding phonological environment Preceding phonological environment refers to the sound or sounds that immediately precedes the variant of interest. The variant of interest here being the past tense form of /t/ or /d/ or the zero form. The preceding phonological environments are categorized into three types – consonant cluster, single consonant, and vowel.

As pronouncing /t/ or /d/ after a consonant cluster, a single consonant or a vowel poses varying levels of physical difficulty, whether such differences in the preceding phonological environment have a statistically significant effect on the presence or absence of /t/ or /d/ will be investigated in the multivariate analysis.

If the preceding phonological environment of a variant is a consonant cluster, for example, /mp/ in *jump(ed)*, the variant will be coded as 'CC'. If the preceding phonological environment of a variant is a single consonant, for example, /k/ in *walk(ed)*, the variant will be coded as 'C'. Lastly, if the preceding phonological environment of a variant is a vowel, for example, /I/ in *lie(d)*, the variant will be coded as 'V'.

(ii) Following phonological environment Following phonological environment refers to the sound that immediately follows the variant of interest. The variant of interest here being the past tense form of /t/ or /d/ or the zero form. The following phonological environments are categorized into three types – consonant, vowel, and pause.

Similar to investigating preceding phonological environment, pronouncing /t/ or /d/ before a consonant, a vowel or a pause also poses varying levels of physical

difficulty, and whether the following phonological environment has a statistically significant effect on the presence or absence of /t/ or /d/ will be investigated in this multivariate analysis too.

If the following phonological environment of a variant is a consonant, for example, /b/ in *lie(d) big*, the variant will be coded as 'C'. If the following phonological environment of a variant is a vowel, for example, /o/ in *lie(d) only*, the variant will be coded as 'V'. Lastly, if the following phonological environment of a variant is a pause, for example, *he lie(d)*, the variant will be coded as 'P'.

Social

AGE

Not only is age an important macro-social category in sociolinguistic research, it is also particularly relevant for our study on Colloquial Singapore English as younger and older speakers differ not only in the type of education they received but also the kind of bilingual they are. All younger speakers received a bilingual education where English is considered the first language and most of them learned English before the age of five, together with their ethnic language. On the other hand, all older speakers, except for one, learned English after the age of five, at a separate time from their ethnic language.

The category of 'age' is coded as either 'Young adult' or 'Middle-aged' based on an individual's age. 'Young adult' ranges from 18 to 39 years old while 'Middle-aged' ranges from 53 to 65 years old.

ETHNICITY

Just like age, ethnicity is also an important macro-social category in sociolinguistic research. Additionally, for the purposes of this study, ethnicity is an important indicator of crosslinguistic influence as different ethnic groups speak a different ethnic language. If ethnicity is a statistically significant predictor of the presence or absence of past tense marking, it will suggest that the differences in the ethnic language is the primary driving force behind such differences.

The category of 'ethnicity' is coded as either 'Chinese', 'Malay' or 'Tamil' based on an individual's ethnic group.

GENDER

Sociolinguistic research on macro-social categories like age, ethnicity, and gender has consistently found differences in the way people speak across these categories and gender is also included in this study to examine if the two genders are statistically different in the way past tense is marked in Colloquial Singapore English.

The category of 'gender' is coded as either 'Male' or 'Female' based on an individual's biological sex.

EDUCATION

As English is the medium of instruction in the Singapore education system, the more time spent in the education system points to an increased likelihood that the person will be more dominant in English. Therefore, it is likely to see statistically significant differences between speakers who hold at least a bachelor's degree and those that do not hold a degree.

The category of 'education' is coded as either 'Degree holder' or 'Non-degree holder'. 'Degree holder' refers to an individual that has completed education at a higher education institution while 'Non-degree holder' refers to an individual that has not completed education at a higher education institution.

ATTITUDE TOWARD ENGLISH

An understanding of people's attitudes toward languages, specific linguistic features, and linguistic stereotypes (Garrett 2010), is important in explaining why people speak in different ways. In this study of Colloquial Singapore English, an understanding of the people's attitudes toward English will help us explain why certain people tend to use linguistic features that are of the 'Standard' variety or the 'Colloquial' variety.

The category of 'attitude towards English' is coded as either 'Favorable', 'Neutral', or 'Unfavorable'. The tripartite coding is determined by the scores participants obtained on a questionnaire (see Chapter 3 for more details).

DOMINANCE OF ENGLISH

One major source of linguistic variation in bilingual or multilingual communities is the variation brought about by differences in the nature of multilingualism, which can be operationalized in terms of language dominance (Treffers-Daller and Silva-Corvalán 2016).

For the category of 'English dominance', participants are coded as either 'YES' – English dominant, 'BAL' – Balanced bilingual, or 'NO' – Not English dominant. The tripartite coding is determined by information participants provided on a questionnaire (see Chapter 3 for more details).

Social and linguistic predictors for plural marking

Using Rbrul (version 3.1.3), various social and linguistic predictors were included in the mixed-effects logistic regression performed on nouns with plural reference. The linguistic predictors for all verbs include grammatical aspect, lexical aspect, and priming, and the social predictors in our statistical model include age, ethnicity, gender, education, attitude toward English, and dominance of English.

Linguistic

SYLLABIC

When a plural marker follows a sibilant, an extra syllable will be added to the root word. For example, *bus* becomes *buses* and *horse* become *horses*. In this study, whether syllabic plurals are marked more or less frequently than non-syllabic plurals will be investigated.

In terms of the coding of the data, if the noun of interest ends with a sibilant, for example, *class*, the noun of interest will then be coded as 'Yes'. On the other hand, if the noun of interest does not end with a sibilant, for example, *friend*, it will then be coded as 'No'.

PRESENCE OF PLURAL MODIFIER

Plural modifiers are words or phrases like *a few* and *three* that indicate the following noun as plural. For instance, *a few trees*. Even if *tree* in this example does not have a plural marker, the hearer would still know that the speaker is referring to more than one tree.

Ho (1981) found that plural marking is more likely when a plural modifier is present and a similar phenomenon is also observed in Hong Kong English (Budge 1989). To corroborate Ho's (1981) finding, whether the presence of a plural modifier like *a few* and *three* will increase the likelihood of plural marking on a plural noun is investigated in this study.

Plural modifiers that do not invariably precede a plural referent are not included in the analysis. For example, *all* can precede a plural referent as in *all dogs like to chew on bones*, but it can also precede a singular referent as in *she played all day*. If a plural modifier precedes the noun of interest, for example, *many*, the noun of interest will be coded as 'Yes'. On the other hand, if there is no plural modifier preceding the noun of interest, the noun of interest will be coded as 'No'.

PRIMING

In the general sense of the term, priming refers to the tendency for one thought to activate another. In this study of plural marking, a preceding plural form or zero form may activate the use of the same form in a following context. As is the case for past tense marking, the effect of priming will also be examined for plural marking. Plural marking is considered to be primed when a previous plural noun within the previous 5 sentences is marked for plurality. On the contrary, there is no priming when a previous plural noun within the previous 5 sentences is not marked for plurality.

With regard to the coding of the data, if a directly preceding plural noun within the previous 5 sentences is marked for plural, for example, *candies*, the noun

of interest will be coded as 'marked'. On the other hand, if a directly preceding plural noun within the previous 5 sentences is unmarked for plural, for example, *candy*, the noun of interest will be coded as 'unmarked'.

Social

AGE

The social factor of age is particularly relevant to our study of Colloquial Singapore English because of the major differences between younger and older speakers in the Singaporean speech community. The first major difference is the type of education that the two groups received. All younger speakers received a bilingual education where English is the medium of instruction while most older speakers received a bilingual education where their ethnic language is the medium of instruction. The second major difference is regarding the kind of bilingual they are. All younger speakers learned English before the age of five, acquiring it simultaneously with their ethnic language. On the other hand, most older speakers learned English after the age of five, acquiring it much later than their ethnic language.

Regarding the coding of data, the category of 'age' is coded as either 'Young adult' or 'Middle-aged' based on an individual's age. In this study, the age of a young adult ranges from 18 to 39 years old, while the age of a middle-aged person ranges from 53 to 65 years old.

ETHNICITY

The social factor of ethnicity is particularly relevant to our study of Colloquial Singapore English as ethnicity is an important indicator of crosslinguistic influence since different ethnic groups in the study speak a different ethnic language. If the factor of ethnicity turns out to be statistically significant in the statistical model, it will suggest that crosslinguistic influence from the respective ethnic languages is the primary driving force behind such differences.

Regarding the coding of data, the category of 'ethnicity' is coded based on an individual's ethnic group as either 'Chinese', 'Malay' or 'Tamil'.

GENDER

Like age and ethnicity, gender is also an important macro-social category that has been found to influence the way people speak. As such, the social factor of gender is included in this study to examine if there is any statistical difference in the way plurality is marked in Colloquial Singapore English by the two genders.

Regarding the coding of data, the category of 'gender' is coded based on an individual's biological sex as either 'Male' or 'Female'.

EDUCATION

English has been the medium of instruction in Singapore schools since 1987, and the more time an individual spends in the education system, the more likely that he or she will become a dominant speaker of English, Therefore, it is highly probable to see differences in the speech of individuals who hold at least a bachelor's degree and those that do not.

Regarding the coding of data, the category of 'education' is coded as either 'Degree holder' or 'Non-degree holder'. 'Degree holder' refers to an individual that has completed education at a higher education institution while 'Non-degree holder' refers to an individual that has not completed education at a higher education institution.

ATTITUDE TOWARD ENGLISH

As shown by Garrett (2010), understanding people's attitudes toward entire languages, specific linguistic features, and linguistic stereotypes is crucial in understanding why people with different attitudes speak differently. That said, an understanding of Singaporean's attitudes toward English will enable us to explain why certain speakers tend to use linguistic features that are of the 'Standard' variety while other speakers tend to use features that are of the 'Colloquial' variety.

Regarding the coding of data, the category of 'attitude towards English' is coded as either 'Favorable', 'Neutral', or 'Unfavorable'. The tripartite coding is determined by scores participants obtained on a questionnaire (see Chapter 3 for more details).

DOMINANCE OF ENGLISH

The operationalization of language dominance (Treffers-Daller and Silva-Corvalán 2016) can enable us to explain linguistic variation brought about by differences in the nature of an individual's bilingualism or multilingualism. In this study of Colloquial Singapore English, there are speakers who are dominant in English, speakers who are dominant in their ethnic language, and speakers who are relatively balanced between their English and ethnic language.

Regarding the coding of data, for the category of 'English dominance', participants are coded as either 'YES' – English dominant, 'BAL' – Balanced bilingual, or 'NO' – Not English dominant. The tripartite coding is determined by information participants provided on a questionnaire (see Chapter 3 for more details).

Statistical results

The following statistical analyses on the presence or absence of past tense and plural marking in Colloquial Singapore English are computed using Rbrul (version 3.1.3). Rbrul combines the strengths of Goldvarb and R, thereby allowing users to not only connect to the wider community of quantitative linguists who use SPSS and R, but also allows users to incorporate random effects into their

statistical modelling. Incorporating random effects in the statistical model helps to solve the problem of overestimating the significance of predictors (Johnson 2009).

Statistical results for past tense marking on weak verbs

Using Rbrul (version 3.1.3), a mixed-effects logistic regression with individual speaker as a random effect was run on the data of weak verbs. Including individual speakers as a random effect means that the model will take into account how some individuals might favor or disfavor a particular linguistic form, over and above what the social and linguistic predictors in the statistical model would predict. The full additive model containing the social factors of 'age', 'education', 'ethnicity', 'gender', 'attitude toward English', 'English dominance', and linguistic factors of 'grammatical aspect', 'lexical aspect', 'priming', 'preceding phonological environment', 'following phonological environment' is then computed to determine which factors are statistically significant. An additive model simply means that no interactions were included in the statistical model. A total of 1034 tokens from 24 speakers were analyzed and Table 4.1 summarizes the relative weights and p values of the full additive model.

As Table 4.1 shows, the following factors of 'preceding phonological environment', 'English dominance', 'ethnicity', 'attitude toward English', 'education', 'gender', 'lexical aspect', 'grammatical aspect', and 'priming' were found to be statistically significant predictors ($< p = 0.05$) of past tense marking in Colloquial Singapore English. Only two factors, 'age' and 'following phonological environment' were not found to be statistically significant. Furthermore, from the range of relative weights, a ranking of the relative importance of the statistically significant predictors was obtained: 'preceding phonological environment' > 'English dominance' > 'ethnicity' > 'attitude toward English' > 'education' > 'gender' > 'lexical aspect' > 'grammatical aspect' > 'priming'. The relative importance of the predictors is determined by the size of the range. The bigger the range, the more effect a predictor has on the outcome. The range is calculated by deducting the lowest weight from the highest weight. In what follows, we shall look at each statistically significant predictor in greater detail by looking at how the percentages of morphological marking change according to different social and linguistic predictors.

According to the Rbrul analysis, preceding phonological environment is the top linguistic predictor of the presence or absence of past tense marking on weak verbs (range = 66). As seen in Figure 4.1, past tense is marked most frequently when the preceding phonological environment is a vowel (see Example (17a)), at 49.8% of the time, and least marked when the preceding phonological environment is a consonant cluster (see Example (17b)), at 9.3% of the time. Past tense is marked 21.0% of the time when the preceding phonological environment is a single consonant (see Example (17c)).

(17a) (I) **stayed** back to look after my mom.

(Tamil male, 37 years old)

Table 4.1 Analysis of weak verbs with speaker as a random effect

Input prob.	*0.209*			
Total N	*1034*			
Deviance	*822.502*			
		f.w.	*%*	*N*
Preceding Phonological Environment	p = 8.61e-33			
CC		0.209	9.26	273
C		0.371	21.0	653
V		0.865	49.8	108
	Range 66			
English Dominance	p = 0.0185			
Yes		0.745	38.2	390
Balanced		0.583	27.2	434
No		0.197	7.63	210
	Range 55			
Ethnicity	p = 5.47e-04			
Tamil		0.760	53.2	220
Malay		0.487	24.9	357
Chinese		0.250	16.8	457
	Range 51			
Attitude toward English	p = 0.0217			
Neutral		0.647	20.1	384
Favorable		0.353	31.7	650
	Range 29			
Education	p = 0.0455			
Degree holder		0.629	35.6	486
Non-degree holder		0.371	20.1	548
	Range 26			
Gender	p = 0.0227			
Female		0.615	34.1	557
Male		0.385	19.5	477
	Range 23			
Lexical Aspect	p = 2.04e-03			
Achievement		0.621	33.7	362
State		0.536	40.8	71
Accomplishment		0.425	22.0	123
Activity		0.417	22.0	478
	Range 20			
Grammatical aspect	p = 0.0253			
Perfective		0.566	31.3	562
Imperfective		0.434	22.7	472
	Range 13			
Priming	p = 0.0134			
Marked		0.558	42.8	362
Unmarked		0.442	19.0	672
	Range 12			
Following Phonological Environment	p = 0.591			
P		[0.557]	37.5	16
V		[0.492]	27.1	413
C		[0.451]	27.3	605
	Range 11			
Age	p = 0.681			
Young adult		[0.529]	34.0	567
Middle-aged		[0.471]	19.3	467
	Range 6			
Speaker	Random			

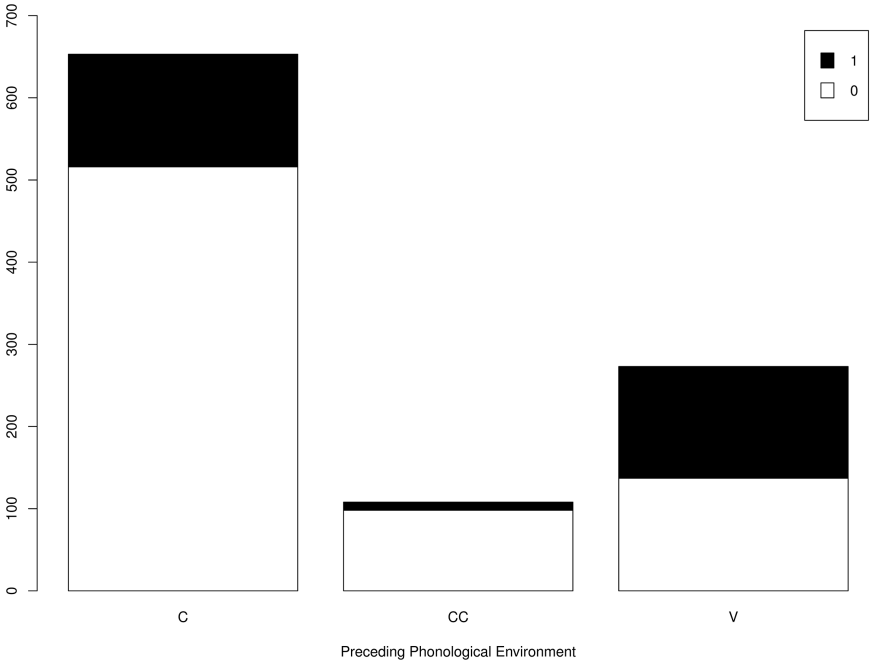

Figure 4.1 The effect of preceding phonological environment on past-tense marking (weak verbs)

(17b) I was quite happy and I ran, ran, I ran onto a track then I **jump**.

(Chinese male, 24 years old)

(17c) We **join** OCBC (Oversea-Chinese Banking Corporation), UOB (United Overseas Bank), and Cheng Kah bank, and another overseas bank.

(Chinese male, 65 years old)

According to the Rbrul analysis, English dominance is the top social predictor of the presence or absence of past-tense marking on weak verbs (range = 55). As seen in Figure 4.2, past tense is marked most frequently by English dominant speakers, at 38.2% of the time, followed by balanced bilinguals, at 27.2% of the time, and finally non-English dominant speakers, at 7.6% of the time.

According to the Rbrul analysis, ethnicity is the second most important social predictor of the presence or absence of past-tense marking on weak verbs (range = 51). As seen in Figure 4.3, past tense is marked most frequently by Tamil speakers, at 53.2% of the time, followed by Malay speakers, at 25.0% of the time, and finally Chinese speakers, at 16.8% of the time. This suggests the importance of crosslinguistic influence in explaining the way in which Singaporeans vary in terms of their use of past-tense morphology.

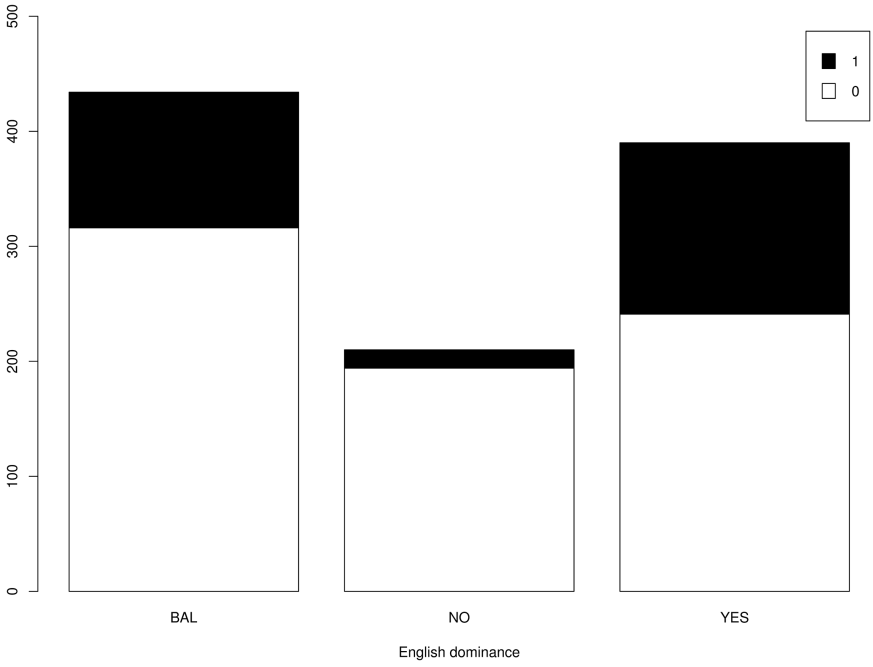

Figure 4.2 The effect of English dominance on past-tense marking (weak verbs)

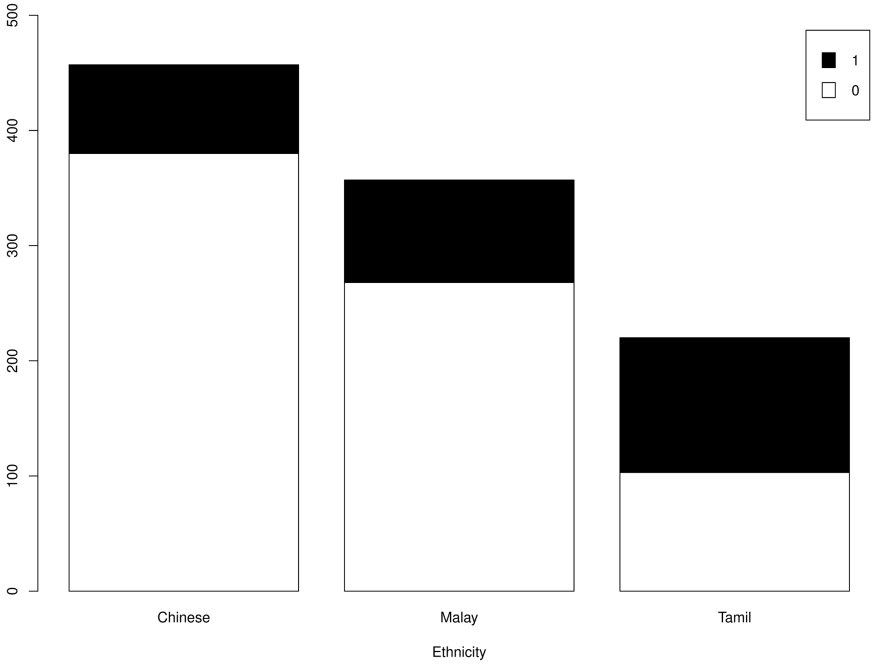

Figure 4.3 The effect of ethnicity on past-tense marking (weak verbs)

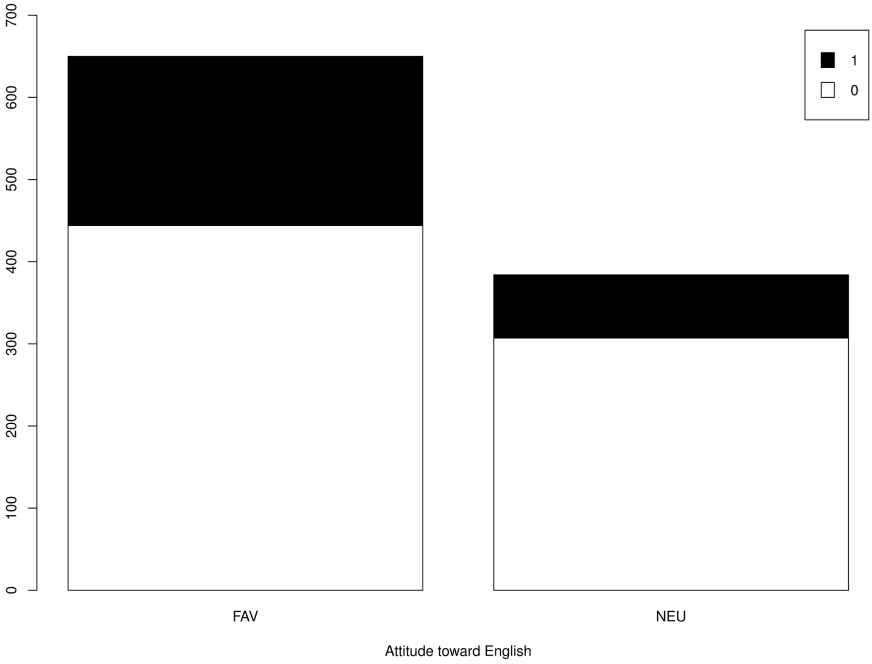

Figure 4.4 The effect of attitude toward English on past-tense marking (weak verbs)

According to the Rbrul analysis, attitude toward English is a statistically significant social predictor of the presence or absence of past-tense marking on weak verbs (range = 29). As seen in Figure 4.4, past tense is marked more frequently by speakers with a favorable attitude toward English, at 31.7% of the time, followed by speakers with a neutral attitude toward English, at 20.1% of the time. Note that since there are no speakers with an unfavorable attitude toward English, there are only two categories in Figure 4.4.

According to the Rbrul analysis, education is a statistically significant social predictor of the presence or absence of past-tense marking on weak verbs (range = 26). As seen in Figure 4.5, past tense is marked most frequently by speakers who hold a degree, at 35.6% of the time, followed by speakers who do not hold a degree, at 20.1% of the time.

According to the Rbrul analysis, gender is a statistically significant social predictor of the presence or absence of past-tense marking on weak verbs (range = 23). As seen in Figure 4.6, past tense is marked most frequently by female speakers, at 34.1% of the time, followed by male speakers, at 19.5% of the time.

According to the Rbrul analysis, lexical aspect is the second most important linguistic predictor of the presence or absence of past-tense marking on weak verbs (range = 20). As seen in Figure 4.7, past tense is marked most frequently

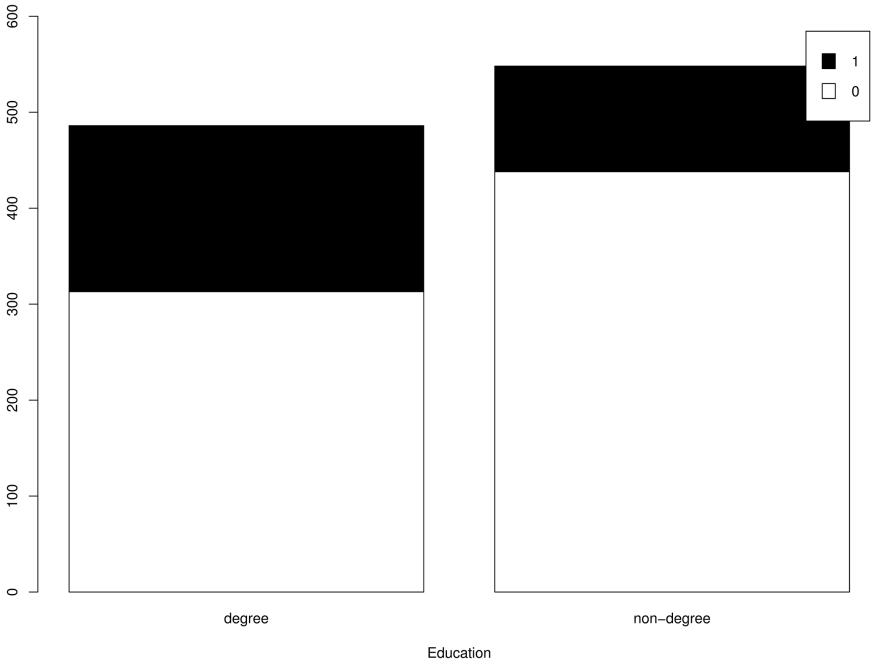

Figure 4.5 The effect of education on past-tense marking (weak verbs)

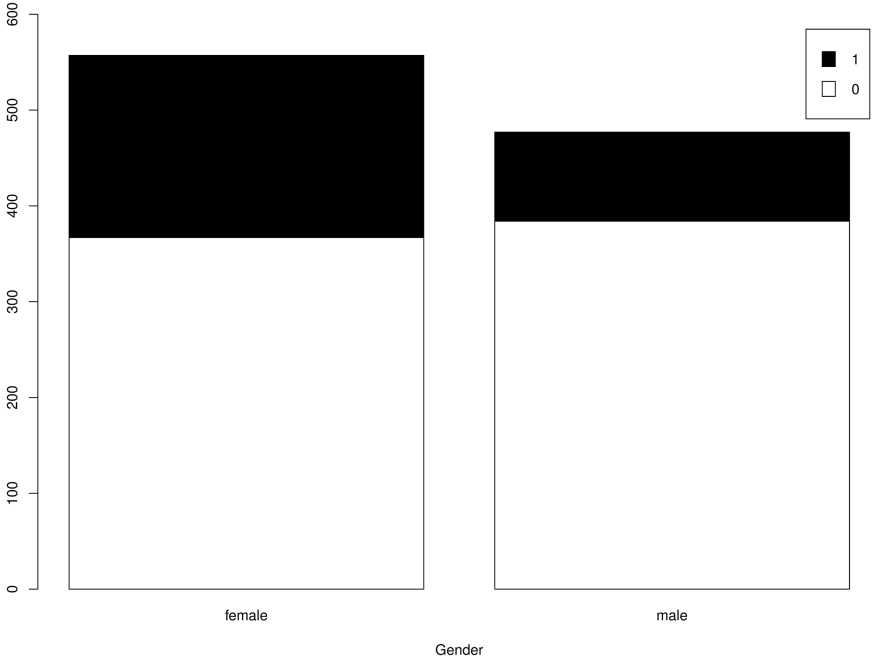

Figure 4.6 The effect of gender on past-tense marking (weak verbs)

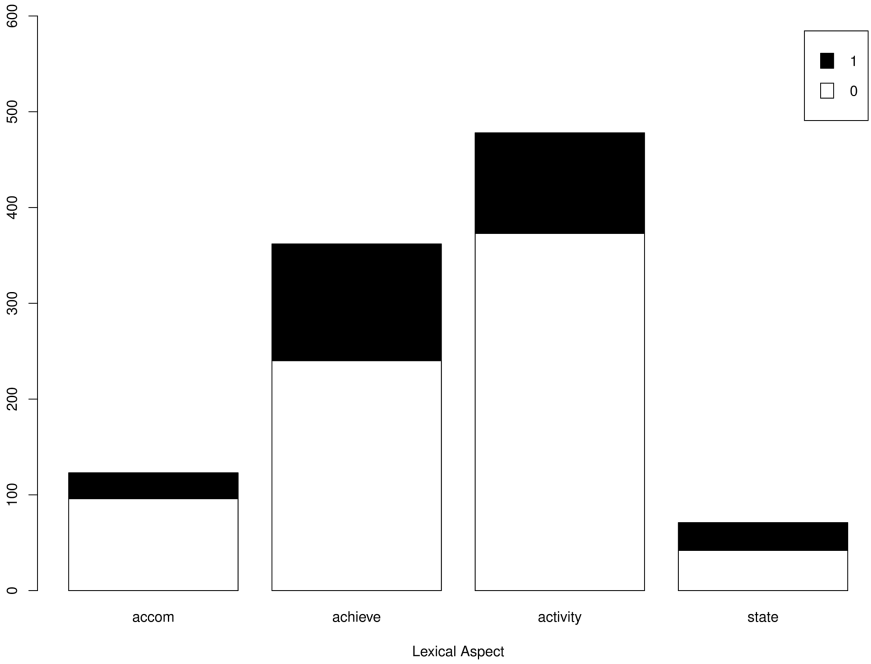

Figure 4.7 The effect of lexical aspect on past-tense marking (weak verbs)

for state-type verbs, at 40.8% of the time (see Example (18a)), followed by achievement-type verbs (see Example (18b)), at 33.7% of the time, and finally accomplishment-type and activity-type verbs (see Examples (18c) and (18d) respectively), both at 22.0% of the time.

(18a) I **lived** nearby, it was just like ten minutes' walk.

(Malay female, 30 years old)

(18b) So I **retired** when I was fifty.

(Tamil female, 65 years old)

(18c) Yah, so they went on top of it, they **climb** on top of it and they fell in.

(Malay female, 30 years old)

(18d) We **play** with sand, running around in the carpark.

(Chinese female, 57 years old)

According to the Rbrul analysis, grammatical aspect is a statistically significant linguistic predictor of the presence or absence of past-tense marking on weak verbs (range = 12). As seen in Figure 4.8, past tense is marked most frequently

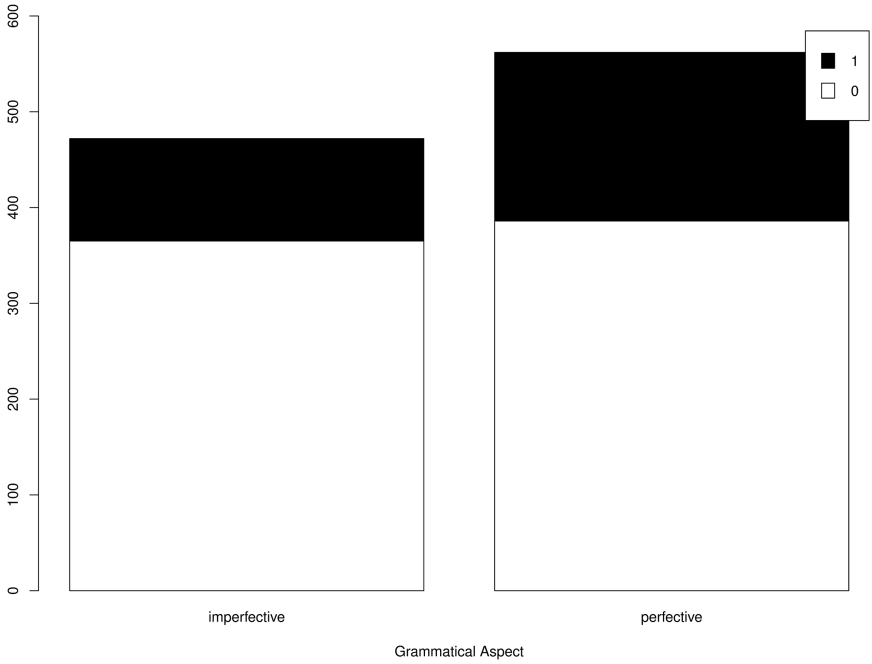

Figure 4.8 The effect of grammatical aspect on past-tense marking (weak verbs)

in perfective contexts (see Example (19a)), at 31.3% of the time, and less so in imperfective contexts (see Example (19b)), at 22.7% of the time.

(19a) So when I landed, I **slipped** and I landed on my back.

(Chinese male, 24 years old)

(19b) Ah, sometimes is we **watch** movies, yah.

(Malay female, 39 years old)

According to the Rbrul analysis, priming is a statistically significant linguistic predictor of the presence or absence of past-tense marking on weak verbs (range = 13). As seen in Figure 4.9, when past tense is primed or when a previous past verb is marked for past, past tense will be marked more frequently, at 42.8% of the time (see Example (20a)). On the other hand, when past tense is not primed or when a previous past verb is unmarked for past, past tense will be marked less frequently, at 19.0% of the time (see Example (20b)).

(20a) Because of language policy, they **eliminated** all the dialect broadcast media, yeah, so radio and TV, they *wiped* it out and there was only like Chinese broadcast media left.

(Chinese male, 25 years old)

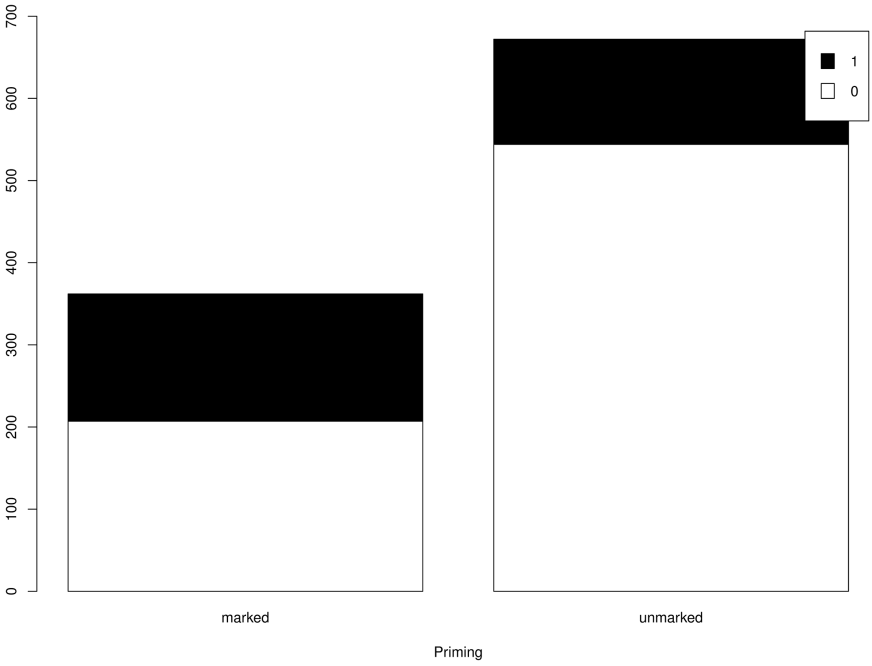

Figure 4.9 The effect of priming on past-tense marking (weak verbs)

(20b) Cause he **hang** his pants behind (the) door, so the money *drop* behind it.
(Malay female, 30 years old)

Statistical results for past-tense marking on strong verbs

Similar to the weak verbs, a mixed-effects logistic regression with individual speaker as a random effect was run with relevant social and linguistic factors on the data of strong verbs. Including individual speakers as a random effect means that the model will take into account how some individuals might favor or disfavor a particular linguistic form, over and above what the social and linguistic predictors in the statistical model would predict. The full additive model containing the social factors of 'age', 'education', 'ethnicity', 'gender', 'attitude toward English', 'English dominance', and linguistic factors of 'grammatical aspect', 'lexical aspect', 'priming' is then computed to determine which factors are statistically significant predictors. An additive model simply means that no interactions were included in the statistical model. A total of 1944 tokens from 24 speakers were analyzed and Table 4.2 summarizes the relative weights and p values of the full additive model.

Table 4.2 Analysis of strong verbs with speaker as a random effect

Input prob.	*0.55*			
Total N	*1944*			
Deviance	*2049.708*			
		f.w.	*%*	*N*
English dominance	p = 3.69e-05			
Yes		0.799	70.4	726
Balanced		0.538	62.3	884
No		0.178	30.2	334
	Range 62			
Grammatical aspect	p = 8.43e-40			
Perfective		0.690	71.5	1307
Imperfective		0.310	35.8	637
	Range 38			
Attitude toward English	p = 8.11e-04			
Neutral		0.668	56.3	741
Favorable		0.332	62.0	1203
	Range 34			
Education	p = 4.70e-03			
Degree holder		0.635	70.9	904
Non-degree holder		0.365	50.2	1040
	Range 27			
Priming	p = 2.24e-06			
Marked		0.569	74.1	758
Unmarked		0.431	50.7	1186
	Range 14			
Lexical aspect	p = 6.89e-04			
Achievement		0.572	65.4	990
Accomplishment		0.500	48.3	89
State		0.476	35.1	57
Activity		0.453	56.1	808
	Range 12			
Ethnicity	p = 0.177			
Malay		[0.590]	58.9	689
Tamil		[0.471]	70.8	394
Chinese		[0.439]	55.5	861
	Range 15			
Age	p = 0.326			
Young adult		[0.451]	68.8	1124
Middle-aged		[0.549]	47.6	820
	Range 10			
Gender	p = 0.52			
Female		[0.521]	59.6	1046
Male		[0.479]	60.1	898
	Range 4			
Speaker	Random			

As Table 4.2 shows, the factors of 'English dominance', 'grammatical aspect', 'attitude toward English', 'education', 'priming', and 'lexical aspect' were found to be statistically significant predictors (< p = 0.05) of past-tense marking in Colloquial Singapore English. The factors of 'ethnicity', 'age', and 'gender' were not found to be statistically significant. Furthermore, from the range of relative weights, a ranking of the relative importance of the statistically significant predictors was obtained: 'English dominance' > 'grammatical aspect' > 'attitude toward English' > 'education' > 'priming' > 'lexical aspect'. The relative importance of the predictors is determined by the size of the range. The bigger the range, the more effect a predictor has on the outcome. The range is calculated by deducting the lowest weight from the highest weight. In what follows, we shall examine each statistically significant predictor in greater detail by looking at how the percentages of morphological marking change according to different social and linguistic predictors.

According to the Rbrul analysis, English dominance is the top social predictor of the presence or absence of past-tense marking on strong verbs (range = 62). As seen in Figure 4.10, past tense is marked most frequently by English dominant speakers, at 70.4% of the time, followed by balanced bilinguals, at 62.3% of the time, and finally non-English-dominant speakers, at 30.2% of the time.

According to the Rbrul analysis, grammatical aspect is the top linguistic predictor of the presence or absence of past-tense marking on strong verbs (range = 38).

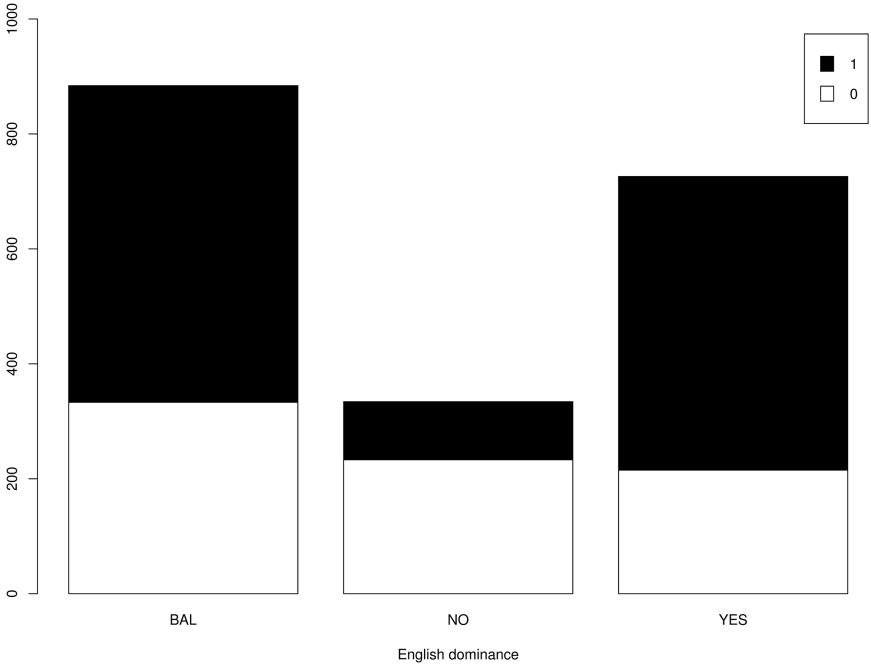

Figure 4.10 The effect of English dominance on past-tense marking (strong verbs)

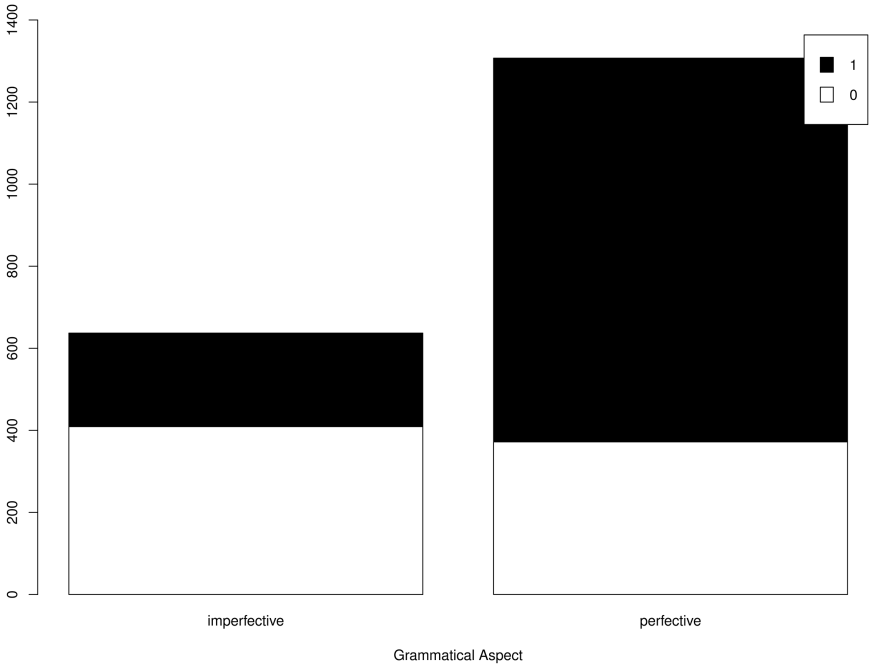

Figure 4.11 The effect of grammatical aspect on past-tense marking (strong verbs)

As seen in Figure 4.11, past tense is marked most frequently in perfective contexts (see Example (21a)), at 71.5% of the time, and less frequently in imperfective contexts (see Example (21b)), at 35.8% of the time.

(21a) Uh . . . I **saw** them punching the man and the man went down.

(Tamil male, 54 years old)

(21b) Normally we **go** to Katong park there to camping.

'Normally we go to Katong park to camp.'
(Chinese male, 55 years old)

According to the Rbrul analysis, attitude toward English is the second most important social predictor of the presence or absence of past-tense marking on strong verbs (range = 34). As seen in Figure 4.12, past tense is marked more frequently by speakers with a favorable attitude toward English, at 62.0% of the time, followed by speakers with a neutral attitude toward English, at 56.3% of the time.

According to the Rbrul analysis, education is a statistically significant social predictor of the presence or absence of past-tense marking on strong verbs (range = 27). As seen in Figure 4.13, past tense is marked most frequently by

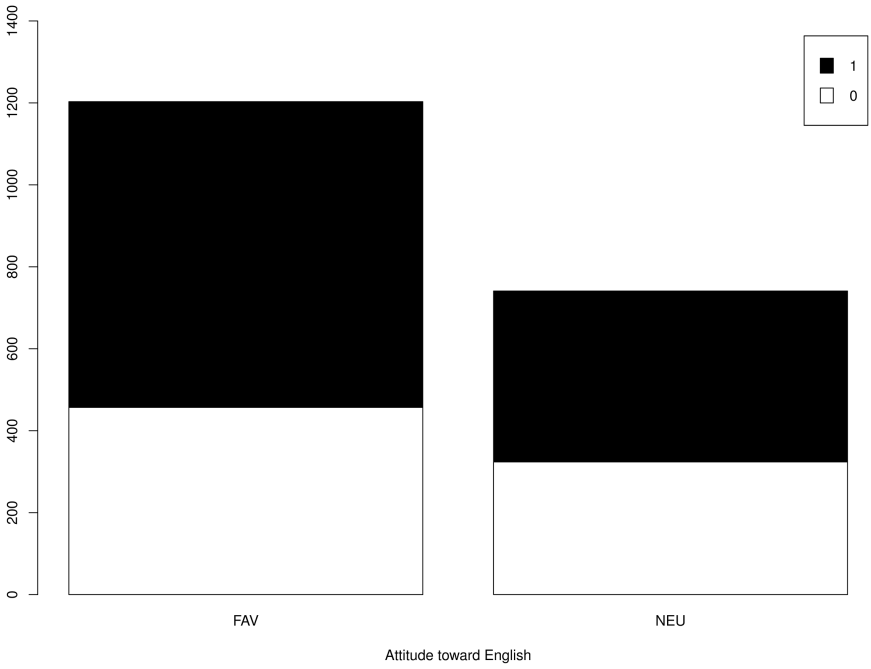

Figure 4.12 The effect of attitude toward English on past-tense marking (strong verbs)

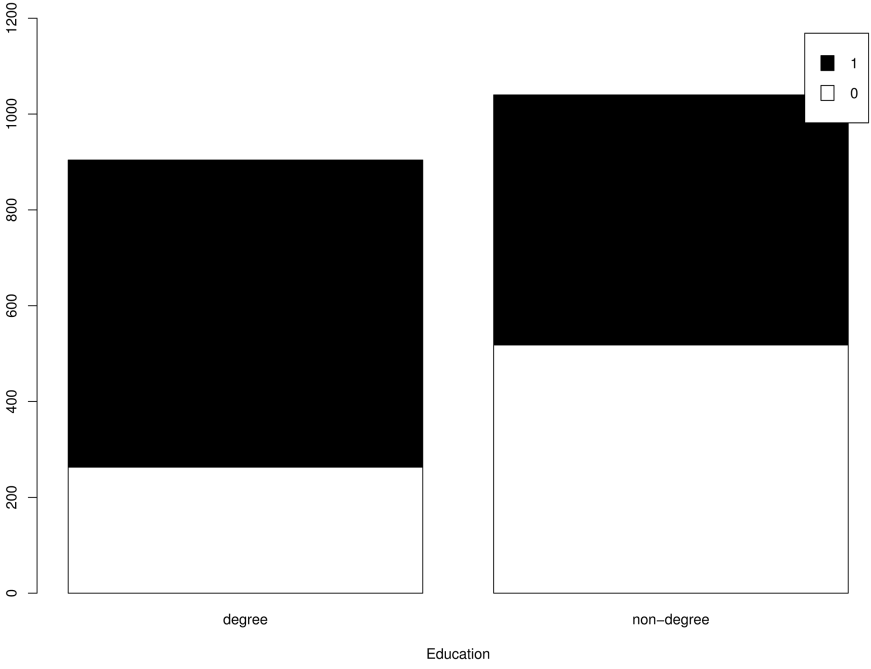

Figure 4.13 The effect of education on past-tense marking (strong verbs)

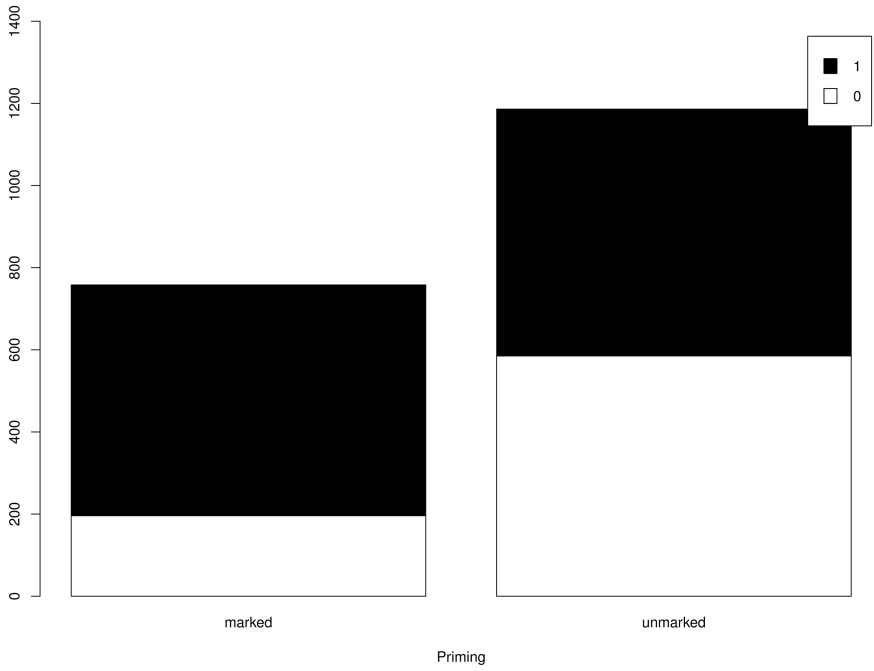

Figure 4.14 The effect of priming on past-tense marking (strong verbs)

speakers who hold a degree, at 70.9% of the time, followed by speakers who do not hold a degree, at 50.2% of the time.

According to the Rbrul analysis, priming is the second most important linguistic predictor of the presence or absence of past-tense marking on strong verbs (range = 14). As seen in Figure 4.14, when past tense is primed or when a previous past verb is marked for past (see Example (22a)), past tense will be marked more frequently, at 74.1% of the time. On the other hand, when past tense is not primed or when a previous past verb is unmarked for past (see Example (22b)), past tense will be marked less frequently, at 50.7% of the time.

(22a) So that's why I have friends who **told** me that, you know, after I **left** NUH (National University Hospital), then sometime we hang out.

'So that's why I have friends who told me that after I left NUH and we hung out sometimes.'
(Malay male, 35 years old)

(22b) But when we search the neighboring, we **ask** the people, they **say** the place no longer there.

'But when we searched the neighboring areas and asked people about it. They said that the place no longer exists.'
(Tamil male, 37 years old)

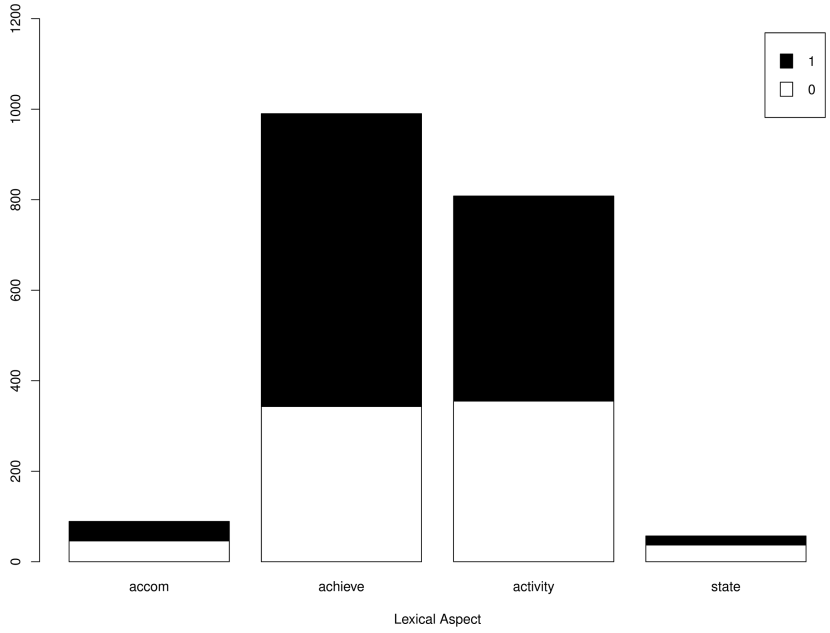

Figure 4.15 The effect of lexical aspect on past-tense marking (strong verbs)

According to the Rbrul analysis, lexical aspect is a statistically significant linguistic predictor of the presence or absence of past-tense marking on strong verbs (range = 12). As seen in Figure 4.15, past tense is marked most frequently for achievement-type verbs (see Example (23a)), at 65.4% of the time, followed by activity-type verbs (see Example (23b)), at 56.1% of the time, and then accomplishment-type verbs (see Example (23c)), at 48.3% of the time, and finally state-type verbs (see Example (23d)), at 35.1% of the time.

(23a) Unfortunately dad finish off work early ah, then he **saw** me playing.

'Unfortunately, my dad finished work early and he saw me playing'
(Tamil male, 37 years old)

(23b) Yeah, he **taught** me the most lah.

(Tamil female, 33 years old)

(23c) I **wrote** a sentence in Arabic.

(Malay male, 28 years old)

(23d) So actually the whole block ah, typically we **know** everyone.

'So actually those living in the block (of apartments) know each other.'
(Chinese female, 57 years old)

Statistical results for plural marking

Like our analysis of past-tense marking on weak and strong verbs, a mixed-effects logistic regression with individual speaker as a random effect was run with relevant social and linguistic factors on the data of plural marking. Including individual speakers as a random effect means that the model will take into account how some individuals might favor or disfavor a particular linguistic form, over and above what the social and linguistic predictors in the statistical model would predict. The full additive model containing the social factors of 'age', 'education', 'ethnicity', 'gender', 'attitude toward English', 'English dominance', and linguistic factors of 'syllabic', 'priming', 'presence of plural modifier' is then computed to determine which factors are statistically significant. An additive model simply means that no interactions were included in the statistical model. A total of 4756 tokens from 24 speakers were analyzed and Table 4.3 summarizes the relative weights and p values of the full additive model.

As Table 4.3 shows, the factors of 'English dominance', 'gender', 'presence of plural modifier', and 'priming' were found to be statistically significant predictors ($< p = 0.05$) of plural marking in Colloquial Singapore English. The factors of 'ethnicity', 'syllabic', 'attitude toward English', 'education', and 'age' were not found to be statistically significant. Furthermore, from the range of relative weights, a ranking of the relative importance of the statistically significant predictors was obtained: 'English dominance' > 'gender' > 'presence of plural modifier' > 'priming'. The relative importance of the predictors is determined by the size of the range. The bigger the range, the more effect a predictor has on the outcome. The range is calculated by deducting the lowest weight from the highest weight. In what follows, we shall examine each statistically significant predictor in greater detail by looking at how the percentages of morphological marking change according to different social and linguistic predictors.

According to the Rbrul analysis, English dominance is the top social predictor of the presence or absence of plural marking on nouns (range = 57). As seen in Figure 4.16, plurality is marked most frequently by English dominant speakers, at 83.4% of the time, followed by balanced bilinguals, at 77.6% of the time, and finally non-English dominant speakers, at 31.1% of the time.

According to the Rbrul analysis, gender is a statistically significant social predictor of the presence or absence of plural marking on nouns (range = 18). As seen in Figure 4.17, plurality is marked most frequently by female speakers, at 76.3% of the time, followed by male speakers, at 68.1% of the time.

According to the Rbrul analysis, the presence of plural modifiers is the top linguistic predictor of the presence or absence of plural marking on nouns (range = 15). As seen in Figure 4.18, plurality is marked most frequently when there is a plural modifier like *many* or *ten* (see Example (24a)), at 76.6% of the time, and less frequently when the plural modifier is absent (see Example (24b)), at 69.7% of the time.

(24a) During the day most of the **doors** are all open, seldom close.

'During the day most of the doors are all kept open. They are seldom closed.' (Chinese male, 65 years old)

Table 4.3 Analysis of plural marking with speaker as a random effect

Input prob.	*0.766*			
Total N	*4756*			
Deviance	*4466.095*			
		f.w.	*%*	*N*
English dominance	p = 1.81e-03			
Yes		0.739	83.4	1974
Balanced		0.635	77.6	1981
No		0.169	31.1	801
	Range 57			
Gender	p = 0.0315			
Female		0.588	76.3	2342
Male		0.412	68.1	2414
	Range 18			
Plural modifier	p = 2.73e-13			
Yes		0.574	76.6	1698
No		0.426	69.7	3058
	Range 15			
Priming	p = 4.65e-08			
Marked		0.556	82.9	1928
Unmarked		0.444	64.9	2828
	Range 11			
Ethnicity	p = 0.262			
Tamil		[0.592]	85.1	928
Malay		[0.499]	74.6	1458
Chinese		[0.409]	65.6	2370
	Range 18			
Syllabic	p = 0.0598			
Yes		[0.538]	77.3	309
No		[0.462]	71.8	4447
	Range 8			
Attitude toward English	p = 0.453			
Neutral		[0.542]	58.6	1749
Favorable		[0.458]	80.0	3007
	Range 8			
Education	p = 0.555			
Degree holder		[0.530]	83.4	2298
Non-degree holder		[0.470]	61.6	2458
	Range 6			
Age	p = 0.564			
Young adult		[0.532]	83.1	2626
Middle-aged		[0.468]	58.7	2130
	Range 6			
Speaker	Random			

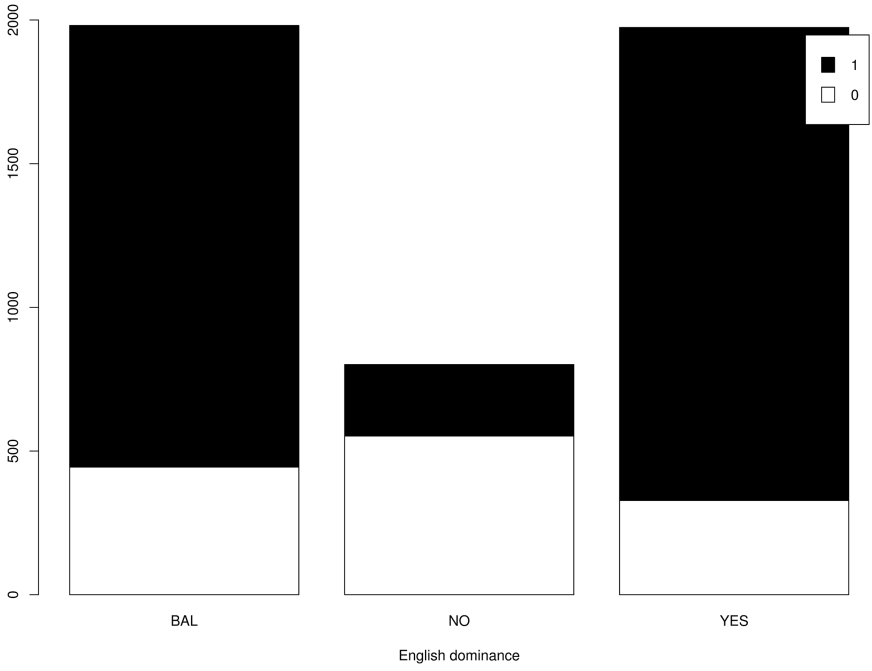

Figure 4.16 The effect of English dominance on plural marking

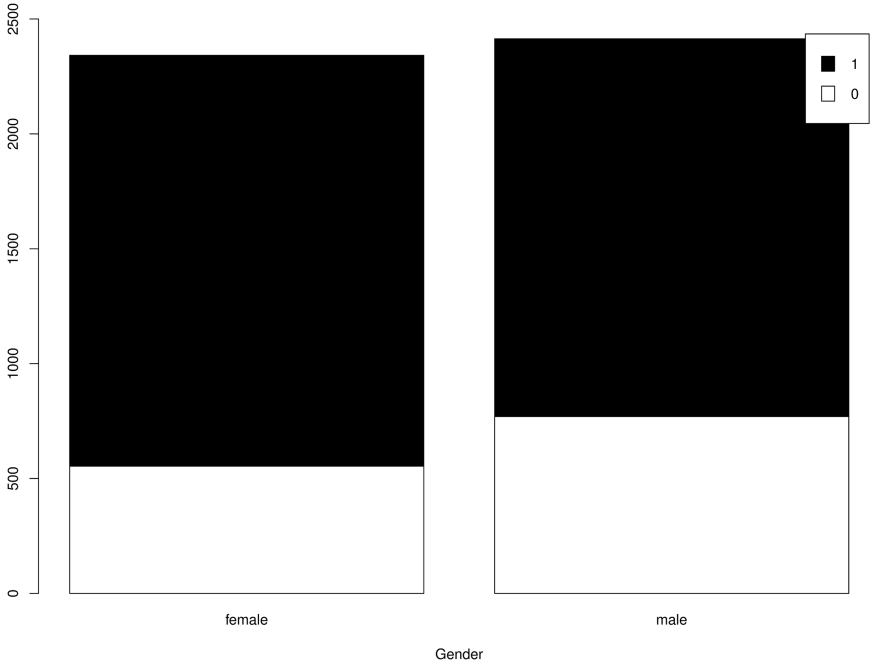

Figure 4.17 The effect of gender on plural marking

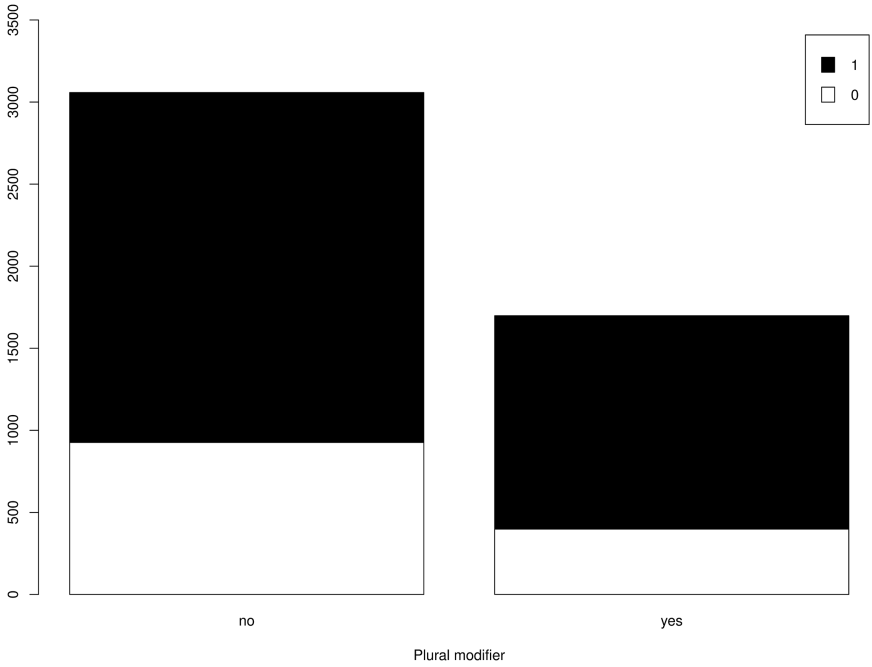

Figure 4.18 The effect of the presence of plural modifier on plural marking

(24b) They can give **gift**, but we have to declare.

'They can give gifts, but we have to inform our superiors.'
(Malay male, 35 years old)

According to the Rbrul analysis, priming is the second most important linguistic predictor of the presence or absence of plural marking on nouns (range = 11). As seen in Figure 4.19, when plural marking is primed or when a previous plural noun within the previous 5 sentences is marked for plurality (see Example (25a)), plurality will be marked more frequently, at 82.9% of the time. On the other hand, when plural marking is not primed (see Example (25b)), plurality will be marked less frequently, at 64.9% of the time.

(25a) But at the end of the day I think, all these are just, **devices** of **systems**, yeah.

(Malay male, 53 years old)

(25b) Ours is, we check against the architecture's work, **drawing** and all that, that they follow **specification**, and all that lah.

'Our job is to check against the architect's work, his drawings and all that and make sure that they are in accordance with specifications and all that.'
(Malay female, 39 years old)

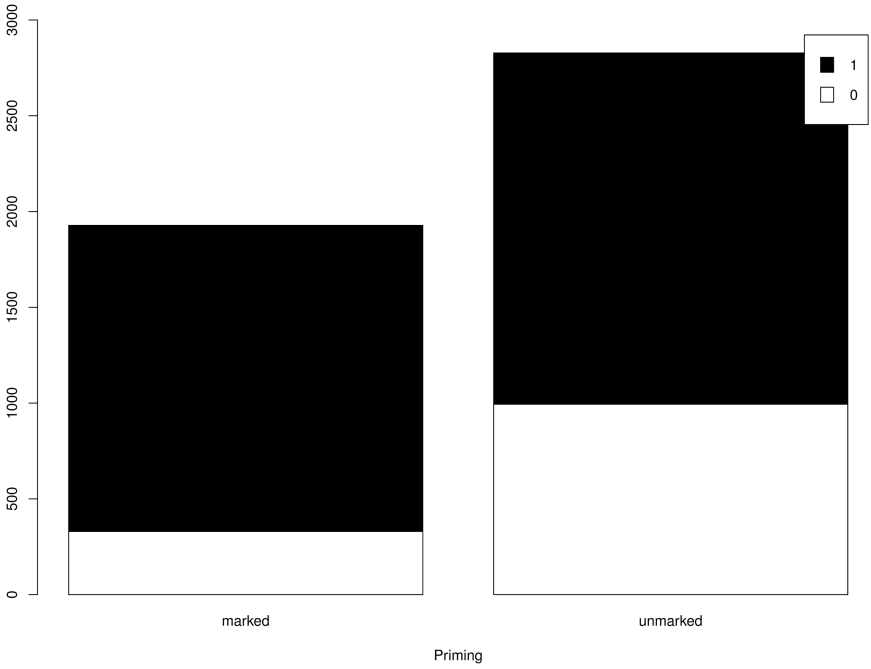

Figure 4.19 The effect of priming on plural marking

Overall discussion

From our multivariate analyses of past tense and plural marking in Colloquial Singapore English, two statistically significant predictors that are common for all three statistical analyses stand out. One is a social factor – English dominance, whether someone's dominant language is English or not, and the other is a linguistic factor – priming, whether a previous noun or verb is morphologically marked.

English dominance came out as the top social predictor for both past-tense marking and plural marking. If an individual's dominant language is English, it will be more likely that he or she will mark past-tense and plural marking. As for priming, when a previous past verb or plural noun is marked, there will be a higher tendency for the following past verb or plural noun to be also marked. Both these trends point to the presence of strong normative social pressure from Standard English in Singapore. English is the working language of Singapore and it is used increasingly in all aspects of everyday life. Moreover, as mentioned earlier in Chapter 2, English, especially Standard English, is highly valued in the Singaporean linguistic market. A high level of proficiency in English is necessary for most decent paying jobs and that is why, for many people, a low level of English proficiency is strongly linked to a low educational level and a low socioeconomic status. Normative pressure to speak Standard English comes from many areas of a Singaporean's life. For instance, in schools, Singaporeans are taught Standard

English and deviations from the Standard are frowned upon. On top of that, they have an ideal conception of what Standard English should sound like from exposure to the media. Additionally, society at large favors or looks up to people who speak 'good' or Standard English. For example, the government regularly holds campaigns like the 'Speak Good English Movement' to promote the use of grammatically correct English that can be universally understood by English speakers from other countries so as to facilitate communication.

With this strong normative pressure to speak Standard English, people who are English-dominant, or people who use English on a more regular basis, will tend to speak a variety of English that is closer to their ideal conception of what they think Standard English should be. As a result, English-dominant speakers will tend to mark their past verbs and plural nouns more regularly and frequently than non-English-dominant speakers. As for priming, since all Singaporeans feel the normative pressure to speak as grammatically correct as they possibly can, they will generally tend to mark past verbs and plural nouns when they are primed to do so.

On a side note, English dominance being the top social predictor for all three statistical analyses shows the validity of the questionnaire method being used to determine language dominance. The triangulation of the three aspects: 1) the age they started speaking a particular language; 2) their self-rating of their proficiency level in a particular language; and 3) how much they use a particular language, is a simple and quick way to determine an individual's dominant language (see Chapter 3 for more details).

Even though interactions were not included in the full additive models in the results section, Rbrul automatically computes and presents the user with a list of statistically significant interactions in a side table. Uncovering statistical interactions in the model deepens our understanding of the relationships between the social and linguistic factors and how they come together to influence morphological marking in Colloquial Singapore English. An example of a statistical interaction between two linguistic factors in the interview data will help to make this clear.

As shown in Figure 4.20, there is a statistical interaction between two linguistic factors – presence or absence of plural modifier and whether the noun of interest is syllabic. When there is no plural modifier preceding the noun of interest, a syllabic plural noun will be more likely to be marked than a non-syllabic plural noun. On the contrary, when there is a plural modifier preceding the noun of interest, a syllabic plural noun is not more likely to be marked. This suggests that syllabicity only has a strong effect on the presence of plural marking when there is no plural modifier. Moreover, by comparing the ranges in the Rbrul analysis (see Table 4.3), we can also see that the presence of plural modifier is a better predictor of plural marking than syllabicity of the nouns. A plausible explanation for the interaction shown in Figure 4.20 is that it is the result of two cognitive effects. The first effect being a stronger chunking effect for non-syllabic plurals as compared to syllabic plurals. 'Chunking' refers to the sequential repetition of chunks of the language (Bybee 2010). Examples of chunking would be formulaic expressions

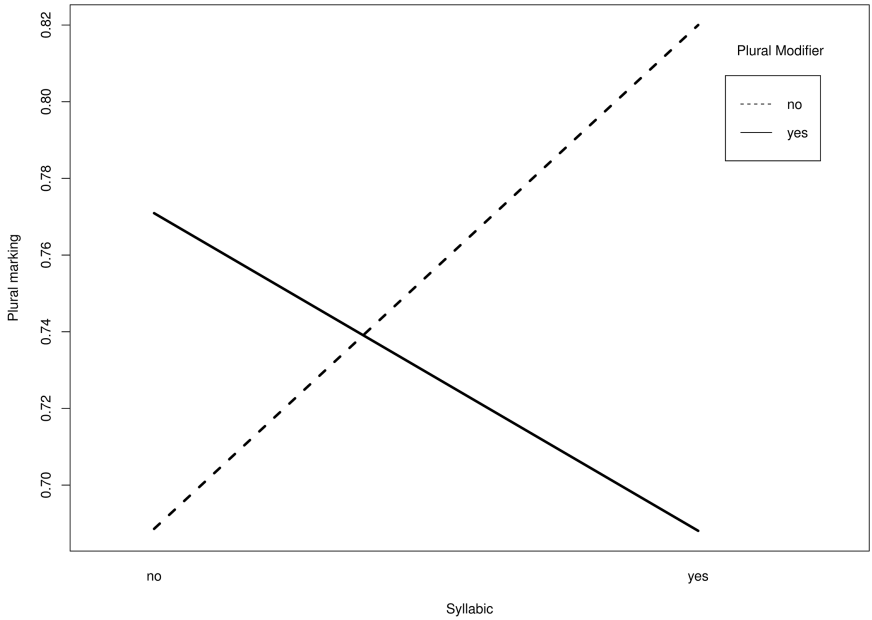

Figure 4.20 The interaction between presence of plural modifier and syllabic plurals

like *nice to meet you* and *have a nice day*. As plural modifiers tend to go with morphologically marked plural nouns, there is a chunking effect of 'plural modifier + plural form' and they tend to appear together more frequently in speech. However, since syllabic plural nouns appear at a lower frequency (309 of 4756 total tokens in the interview data), they have a weaker chunking effect compared to non-syllabic plural nouns. The second cognitive effect is the differential amount of attention placed on the plural noun. When a plural modifier precedes a plural noun, the speaker will place more attention on the correct selection of the plural modifier than on whether the plural noun is morphologically marked for plurality. The combination of these two cognitive effects mean that syllabic plural nouns that follow a plural modifier will be marked less frequently than non-syllabic plural nouns that follow a plural modifier. Moreover, syllabic plural nouns that do not follow a plural modifier will be marked more frequently for plurality since the speaker will place a greater amount of attention to it, producing the statistical interaction we see in Figure 4.20.

Zooming in on how linguistic and social factors interact with crosslinguistic influence, the multivariate analyses of past tense marking and plural marking give us a more complete picture of the way in which crosslinguistic influence interacts with various social and linguistic factors. Of the three analyses that were conducted, 'ethnicity' is a statistically significant predictor ($p = 5.47$ e-04, see Table 4.1) only for past tense marking on weak verbs. That is to say, crosslinguistic

influence plays an important role in the variation of marked and unmarked past weak verbs, but it does not play a significant role in the variation of morphological marking on past strong verbs and plural nouns. What this suggests is that the strength of crosslinguistic influence from other languages may be reduced to non-significance by certain social or linguistic factors. From the analyses of these linguistic features, three major factors that reduce crosslinguistic influence can be observed. First, whether an individual attended a higher education institution. Second, the inherent difficulty of a linguistic feature. Third, the perceived redundancy of a linguistic feature.

Let us first examine the two linguistic factors that may reduce the strength of crosslinguistic influence. The results show that the less inherently difficult a linguistic feature is, the weaker the strength of crosslinguistic influence. Past tense marking on strong verbs is easier to acquire than past tense marking on weak verbs for various possible reasons. This is also attested in first language acquisition, where young children will acquire past tense marking on strong verbs before weak verbs (Brown 1973). There are several reasons for past tense marking on strong verbs to be acquired prior to weak verbs. First, strong verbs simply appear more frequently than weak verbs. In the sociolinguistic interview data collected, there are 1944 tokens of strong verbs but only 1034 tokens of weak verbs. Appearing more frequently in speech makes it easier for learners to acquire past tense marking on strong verbs. The second reason why past-tense marking on strong verbs is easier to acquire is due to its perceptual salience. Although past-tense marking on strong verbs may sometimes involve only a consonant change from /d/ to /t/ as in *build* and *built* or no change at all as in *cut* and *cut*, most past-tense marking on strong verbs involve internal vowel change as in *come* and *came* and *stand* and *stood*. As such, past-tense marking on strong verbs is generally more perceptually salient as compared to the addition of a consonant /d/ or /t/ at the end of weak verbs. The distinction between strong and weak verbs is especially clear for this study because weak syllabic verbs like *started* are not included as part of weak verbs. This brings us to the third reason, which is phonological difficulty for Chinese and Malay speakers to pronounce consonant clusters. As both the Chinese and Malay languages do not have consonant clusters, Chinese and Malay speakers find it more difficult to acquire past tense marking on weak verbs, especially for adult learners. Additionally, although some Chinese and Malay speakers may not pronounce the final consonants on past strong verbs like *stood*, the vowel change will indicate to hearers that it is the past tense form of the verb. This makes it more likely for strong verbs to be marked for past as compared to weak verbs. The fourth possible reason for the differential acquisition of weak and strong verbs can be explained by the fact that past marking on these two categories of verbs represent two distinct types of learning. Based on the Declarative/Procedural model which posits that the lexicon-grammar distinction is tied to the distinction between the declarative memory system and the procedural memory system (Ullman 2005), past marking on strong verbs represents declarative learning while past marking on weak verbs represents procedural learning. According to Ullman (2005), the declarative memory system is

responsible for learning arbitrary relations like information in the lexicon, while the procedural memory system is responsible for learning rules that can be computed compositionally like past-tense marking on weak verbs. According to this theory, late second language learners rely heavily on declarative learning as their procedural learning ability has become attenuated. Since past-tense marking on strong verbs is a form of declarative learning and past tense marking on weak verbs is a form procedural learning, second language learners of English are comparatively more efficient at learning past-tense marking on strong verbs than weak verbs, hence, past strong verbs are generally acquired more readily and marked more frequently. With regard to the differences between ethnic groups, past forms of strong verbs can be acquired as lexical-declarative knowledge by all speakers with relative ease regardless of their ethnic language. That is why there is no statistical difference between the three ethnic groups even though Tamil has grammatical tense while Chinese and Malay do not. For weak verbs, Tamil language speakers have an advantage as there already exists a similar past tense rule in their procedural memory system. This allows them to acquire English past tense marking on weak verbs with greater ease than Chinese and Malay speakers. To sum up, the effects of crosslinguistic influence on past-tense marking in strong verbs are reduced because past-tense marking on strong verbs is easier to acquire than past-tense marking on weak verbs.

Even though plural marking most likely involves procedural learning, ethnicity or crosslinguistic influence was found to be not a statistically significant predictor of the presence or absence of plural marking. Inherent difficulty and perceived redundancy both play a part in this outcome. First, compared to past-tense marking on weak verbs, plural marking is less difficult to acquire phonetically. It takes less physical effort to produce a sibilant like /s/ or /z/ as compared to a plosive like /d/ or /t/. Second, even though both plural and past-tense marking are equally redundant from a communicative perspective (VanPatten 1996), morphological past tense is comparatively more redundant than morphological plural marking from a other language perspective (Ringbom 2011). In both Chinese and Malay one can find morphological means of marking plurality on nouns even though there is no grammatical plural. In Chinese, certain [+animate] [+human] nouns can be marked by a plural marker 们 *men* to indicate plurality. For example, 朋友们 *péngyǒu men* ‘friends’. In Malay, non-exhaustive plurality can be marked by reduplication. For example, *burung-burung* ‘birds’. Although there is no system-wide plural marker in Chinese and Malay, the presence of morphological plurality indicates that morphological plural marking is comparatively less redundant than morphological past tense marking for speakers of these languages. As morphological past tense is more redundant in Chinese and Malay, it is less likely for Chinese and Malay speakers to produce it when speaking Colloquial Singapore English, thus making the difference between Tamil speakers and them more pronounced. This difference in redundancy, coupled with the fact that plural /s/ is phonetically easier to produce than past tense /t/ or /d/, are the reasons why we see no difference between ethnic groups when comparing plural marking to past-tense marking on weak verbs.

The social factor that reduces the strength of crosslinguistic influence is whether an individual attended a higher education institution. In Singapore, the working language is English and all subjects other than the mother tongue or ethnic language are taught in English. This means that a good grasp of Standard English is required in order for someone to qualify for college. As such, people who qualify for college not only are those who have a higher proficiency in English to begin with, they are also required to speak and write Standard English in their university years. This makes them more likely to become highly proficient in English and exhibit different linguistic constraints when compared to non-degree holders. In what follows, the way in which attending a higher education institution negates crosslinguistic influence from the first languages of the speakers will be demonstrated. Do note that the first language of many younger interviewees in the study may be English together with their ethnic language, as many of them learned both languages simultaneously (see Table 3.1 for language background information of all interviewees).

As the Malay and Chinese languages are more sensitive to the aspectual difference between perfective and imperfective contexts, we see an overall pattern where past weak verbs in perfective contexts tend to be marked for past more frequently than past weak verbs in imperfective contexts. As shown in Figure 4.21, this tendency is reflected in the speech of non-degree holders, but not for degree holders. On the contrary, the opposite is actually true for degree holders, where

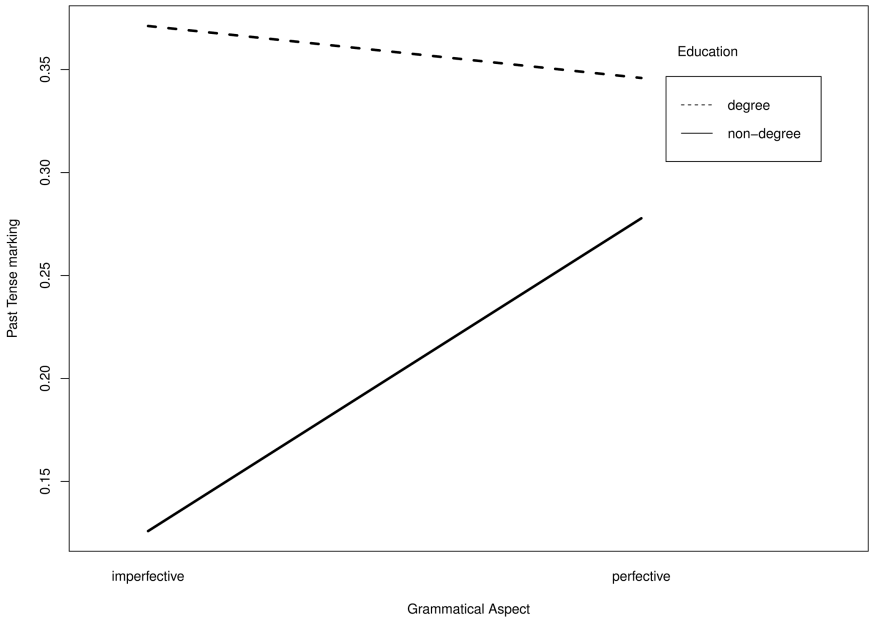

Figure 4.21 The interaction between education and grammatical aspect (weak verbs)

the past weak verbs in perfective contexts are slightly less marked than those in imperfective contexts.

As the ethnic languages of Chinese, Malay, and Tamil, do not have a distinction between syllabic and non-syllabic plurals, speakers who are not highly proficient in English generally do not mark syllabic plurals more regularly than non-syllabic plurals. As shown in Figure 4.22, there is no tendency to mark syllabic plurals more regularly in the speech of non-degree holders. On the contrary, we see a tendency for degree holders to mark syllabic plurals more regularly than non-syllabic plurals. This shows that degree holders have acquired a new linguistic sensitivity that is not present in non-degree holders.

Considering the information presented in both Figures 4.21 and 4.22, they suggest a lower reliance on first or ethnic language knowledge for speakers who are more proficient in English and a greater reliance on ethnic language knowledge for speakers who are less proficient in English and more proficient in their ethnic language. As such, we see the strength of crosslinguistic influence weakening when we go from lower proficiency in English to higher proficiency in English.

Other than having an effect on crosslinguistic influence, attending a higher education institution also has interesting effects on the other linguistic and social constraints.

Studies in language acquisition have shown that the development of past tense morphology in second language learners (see Bayley 1994; Shirai and Kurono 1998 among others) follows a regular pattern based on a verb's lexical aspect.

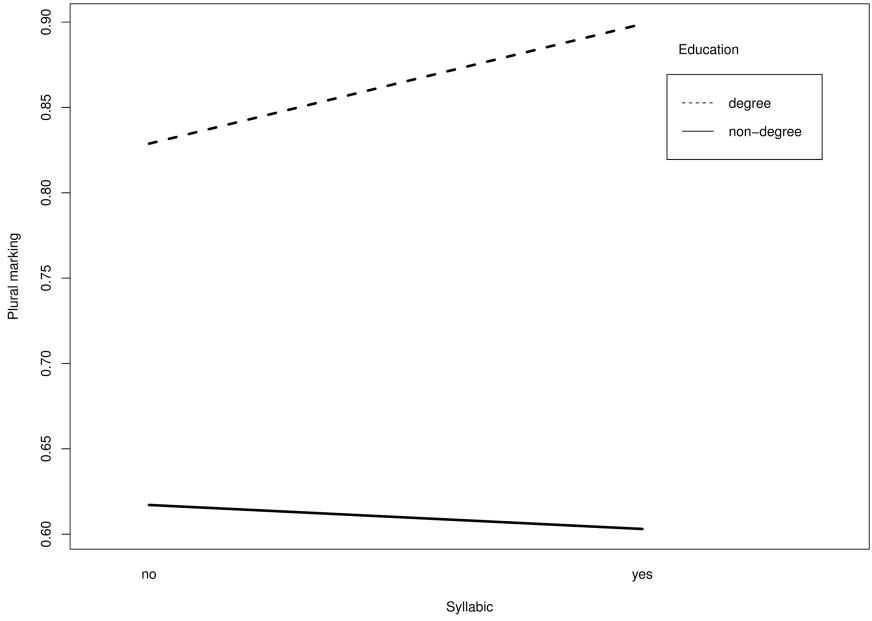

Figure 4.22 The interaction between education and syllabic plurals

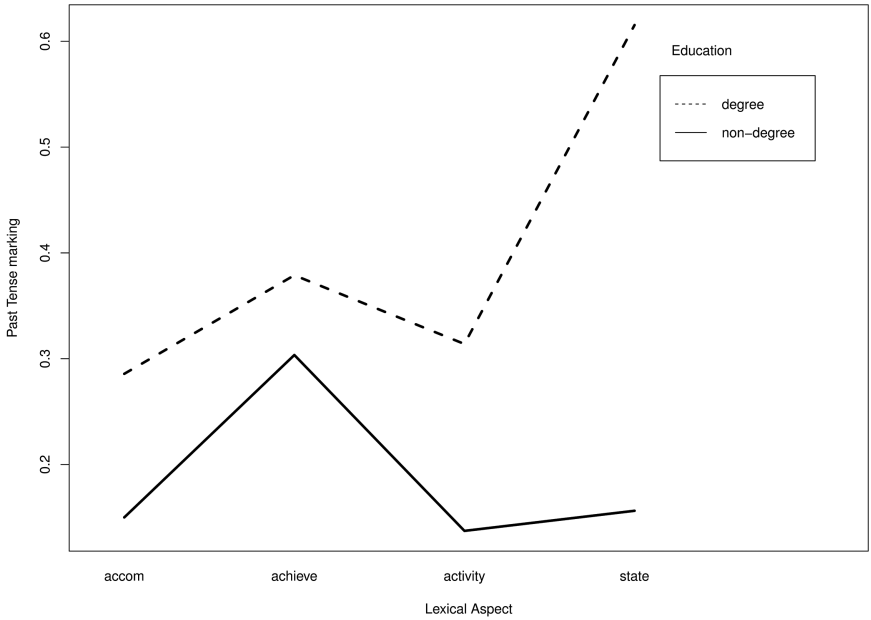

Figure 4.23 The interaction between education and lexical aspect (weak verbs)

These studies discovered that achievement-type and accomplishment-type verbs will be marked regularly first, before regular past tense marking on activity-type verbs and finally to stative verbs (Shirai and Andersen 1995). This is known as the aspect hypothesis. As shown in Figure 4.23, degree holders and non-degree holders are at different stages of their development of past tense morphology. Non-degree holders seem to be at an early stage of development where they mark achievement-type verbs more regularly than other verb types. On the other hand, degree holders seem to be at a more advanced developmental stage, where they mark accomplishment-type, achievement-type, and activity-type verbs more or less at the same frequency.

Attending an institution of higher education also reduces the predictive power of attitudes. On its own, attitude toward English is a significant predictor of past tense for strong verbs ($p = 8.11e\text{-}04$), where past tense is marked more frequently by speakers with a favorable attitude toward English, at 62.0% of the time, followed by speakers with a neutral attitude toward English, at 56.3% of the time. As we can see in Figure 4.24, the opposite trend is observed for people who had attended an institution of higher education. This is probably the result of achieving a high proficiency in English regardless of an individual's attitude toward English. Note that there are no unfavorable attitudes toward English among the speakers who participated in this study. If there were some speakers with unfavorable attitudes, we may be presented with a completely different picture. In short, for

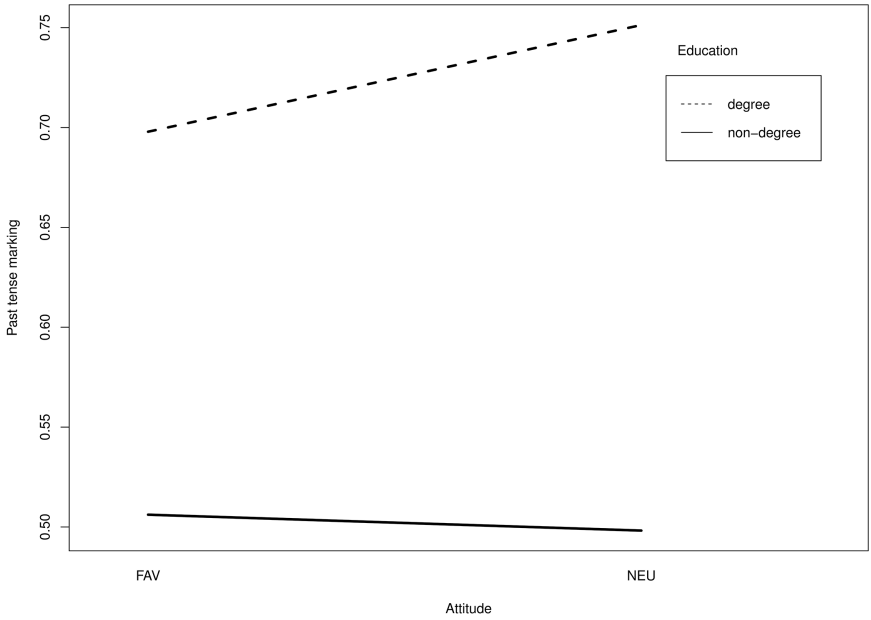

Figure 4.24 The interaction between education and attitude (strong verbs)

individuals who have attended an institution of higher education, the overall trend where past tense is marked more frequently by speakers with a favorable attitude than those with a neutral attitude no longer holds true.

From the preceding discussion we have seen the way in which different social and linguistic factors may strengthen or weaken crosslinguistic influence from the ethnic languages. In what follows, we will delve into specific contexts of use to better understand how crosslinguistic influence interacts with the various social and linguistic factors discussed so far.

The following dialogues are taken from the sociolinguistic interviews conducted by the author. Dialogue 1 is the speech of a 65-year-old Tamil speaker and Dialogue 2 is the speech of a 58-year-old Malay speaker. Using social predictors, we can predict the overall rate of morphological marking for any individual. For example, a middle-aged Tamil speaker will probably mark past tense on weak verbs around 59.6% of the time while a middle-aged Malay speaker will probably mark past weak verbs around 13.8% of the time. On the other hand, linguistic predictors will give us an idea of how this overall rate of marking is likely to be distributed in any given discourse.

Dialogue 1 (Tamil female, 65 years old):

> Yeah actually I **liked** one teacher very much. You know when, no. you know when you are young, you go more for the **looks**, and then being **girls** you

know like this lady, this teacher, she **was** a very beautiful teacher. I can still remember her. And uh.

Dialogue 2 (Malay female, 58 years old):

Perform for the dance performance yeah, quite okay lah. Then I was, I also close with the **teachers**, that, even when I **married**, the **teachers** also came. They were my own science **teacher**. I still remember, Mr Tian. He's very good to us and then he still, I **married** and then he **come** over and then **take picture** then **give**. Because we are very close to him.

Dialogue 1 is the speech of a middle-aged Tamil speaker, and with this social information, we know that the majority of past verbs and plural nouns will be marked for past or plurality respectively. As mentioned previously, middle-aged Tamil speakers mark past weak verbs 59.6% of the time in the sociolinguistic interview data collected. They also mark past strong verbs 75.8% of the time and plural nouns 86.2% of the time. As shown in the short dialogue here, we see that all the past verbs, *like* and *was*, and all the plural nouns, *look* and *girl*, are marked regardless of the corresponding linguistic factors. For example, liking the teaching is an imperfective event and such verbs tend to remain unmarked. Note that *was* here was not included in the statistical analysis as it is a copula verb.

As for Dialogue 2, we can see a series of marked and unmarked past verbs and plural nouns. In this case, the linguistic factors allow us to have a general idea of why the morphological marking on verbs and nouns is distributed in a certain pattern. What we see in Dialogue 2 is the speech of a middle-aged Malay speaker and this social information gives us an overall rate of marking for past verbs and plural nouns. Middle-aged Malay speakers mark past weak verbs 13.8% of the time in the sociolinguistic interview data collected. They also mark past strong verbs 39.1% of the time and plural nouns 57.4% of the time. The verb *marry* is likely to be marked as the past tense marker is preceded by a vowel /i/, and the preceding phonological environment is the most important linguistic predictor (Range = 66) of past tense marking on weak verbs. Additionally, the linguistic factor of priming is the second most important predictor of morphological marking on past verbs and plural nouns. That is why we can see clusters of marked and unmarked past verbs and nouns in the dialogue. For past weak verbs, we see that two consecutive weak verbs, *marry*, are both marked. The first two plural nouns, *teacher*, are also marked. Subsequently, the third plural noun, *teacher*, is unmarked, and this primes the next plural noun, *picture*, to be unmarked as well. Lastly, we also see a cluster of unmarked strong past verbs, beginning with *come*, and ending with *give*.

A detailed analysis of these two dialogues reveal how social and linguistic factors work in tandem to increase or decrease the likelihood of morphological marking on past verbs and plural nouns in Colloquial Singapore English. For example, the probability of a weak past verb being marked in a perfective context is high across the board, but it will be higher for someone who is English dominant as compared to someone who is not English dominant. Additionally, the fact that morphological

marking is not 100% present or 100% absent shows that there is no system-wide change with respect to the acquisition of morphological marking and that acquiring morphological marking for past verbs and plural nouns probably proceeds in a piece-wise fashion. For example, an individual may have acquired past tense marking for certain verbs in particular linguistic contexts but not others. This provides strong evidence for construction based learning in second language learners, where they learn a language by accumulating the various mappings between form and meaning for different linguistic contexts. Such construction based learning points to the possible role that parallel constructions might play in crosslinguistic influence. Parallel constructions across the languages are able to motivate synchronic crosslinguistic effects in bilinguals' speech production because certain representations of a bilingual are shared across languages (Hartsuiker et al. 2004) in a single semantic network of associated constructions (Travis et al. 2017). Furthermore, as the languages of a bilingual can never be totally deactivated (Grosjean 2010), the suppressed construction of the ethnic language may prime the use of a shared construction in Colloquial Singapore English (see Chapter 3 for more details).

(26a) நேற்று மழை பெய்தது

nēr̲ru ma̲lai pey-**ta**-tu
yesterday rain fall-PST-PNG
'It rained yesterday.'

(26b) It rain-**ed** yesterday.

Examples (26a) and (26b) are a pair of parallel constructions between Tamil and English. In terms of functional similarity, both languages have a suffix that indicates that an event has occurred prior to speech time. The past tense suffix in (26a) is /ta/ and the past tense suffix in (26b) is /d/. Note that the form of the past tense suffix in Tamil changes according to the verb type and the phonological environment. In terms of formal similarity, the past tense suffix in both languages are bound morphemes that immediately follow the main verb. For instance, /ta/ follows the main verb *pey* 'fall' in (26a) and /d/ follows the main verb *rain* in (26b). The presence of parallel constructions between Tamil and English motivate Tamil speakers to mark past tense more frequently on English weak verbs as compared to Chinese and Malay speakers. Furthermore, the presence of consonant clusters in Tamil loanwords like பாங்க் pāṅk 'bank' (Nag and Narayanan 2019) mean that it is not as phonologically difficult for them to pronounce the English past tense marker as compared to Chinese and Malay speakers since consonant clusters do not exist in the Chinese and Malay languages.

Although the effects of crosslinguistic influence can be observed for both young and middle-aged speakers, its effects seem to have reduced as a result of people speaking more similarly to each other (see Figure 4.25). This could be due to the formation of a stronger local Singaporean identity through the government's integration policies and increased transnational migration into Singapore (Starr and Balasubramaniam 2019).

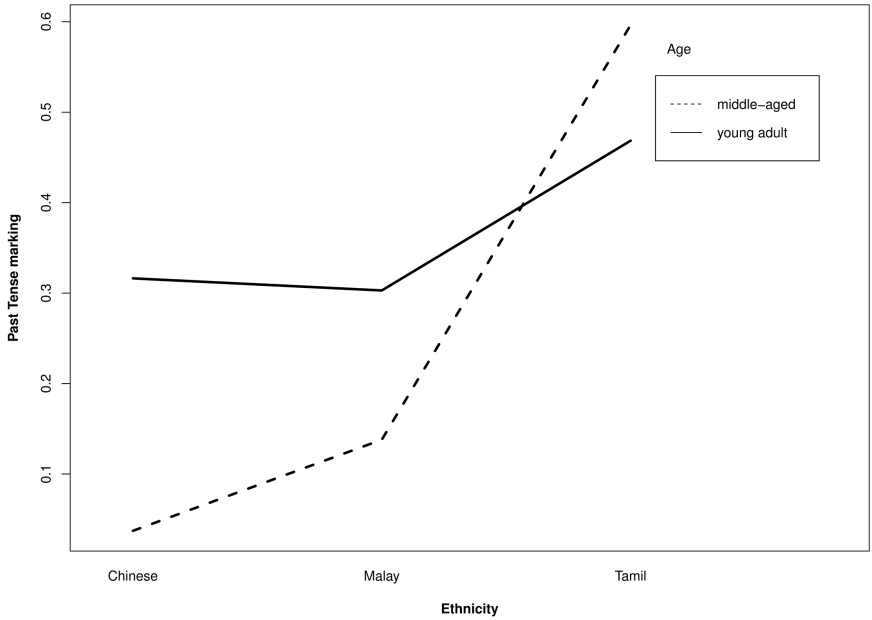

Figure 4.25 The interaction between age and ethnicity (weak verbs)

In Figure 4.25, we can see that the difference between Tamil speakers and other ethnic language speakers have narrowed over time. For middle-aged speakers, the variety by Tamil speakers is very distinct from the Chinese and Malay speakers when we look at past tense marking on weak verbs. On the other hand, for young adult speakers, the variety spoken by Tamil speakers has become less distinct. This is probably due to the use of English as a lingua franca and the rise of a local Singaporean identity. Studies like Tan (2012) and Starr and Balasubramaniam (2019) discovered a similar trend where younger speakers are more similar to one another while older speakers are more different from each other. As we will see in Chapter 6, convergence may not necessarily apply across the board for all linguistic features of Colloquial Singapore English as different ethnic groups in Singapore appear to be distinct in their usage of clause-final discourse particles.

To conclude, we have seen the way in which a variety of social and linguistic predictors or factors can influence the use of past tense and plural morphology in Colloquial Singapore English. Understanding these factors and the way in which they interact is necessary if we hope to have a more complete understanding of the complex linguistic situation of contact languages like Colloquial Singapore English. Additionally, we have also seen how crosslinguistic influence may be strengthened or weakened by the very same social and linguistic factors that influence the use of past tense and plural marking in Colloquial Singapore English.

Notes

1 Unless otherwise stated, Chinese refers to the Sinitic family comprising of at least seven dialects – Mandarin, Wu, Gan, Xiang, Hakka, Yue, and Min.
2 Malay *sudah* is also described as expressing perfect aspect in the literature.
3 Grammatical aspect in this study follows Smith's (1997) definition, which refers to the aspectual information conveyed by a sentence. It is not necessary for aspect to be grammaticalized as a grammatical category under this definition.

References

Bayley, Robert. 1994. Interlanguage variation and the quantitative paradigm: Past tense marking in Chinese-English. In E. Tarone, S. M. Gass, and A. D. Cohen (eds.), *Research methodology in second-language acquisition*, 157–181. Hillsdale, NJ: Lawrence Erlbaum.

Bayley, Robert. 1999. The primacy of aspect hypothesis revisited: Evidence from language shift. *Southwest Journal of Linguistics* 18(2). 1–22.

Bickerton, Derek. 1975. *Dynamics of a creole system*. London: Cambridge University Press.

Brown, Roger. 1973. *A first language: The early stages*. Cambridge, MA: Harvard University Press.

Budge, Carol. 1989. Plural marking in Hong Kong English. *Hong Kong Papers in Linguistics and Language Teaching* 12. 39–47.

Bybee, Joan L. 2010. *Language, usage and cognition*. Cambridge: Cambridge University Press.

Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.

Deterding, David. 2007. *Singapore English*. Edinburgh: Edinburgh University Press.

Garrett, Peter. 2010. *Attitudes to language*. Cambridge: Cambridge University Press.

Grosjean, François. 2010. *Bilingual life and reality*. Cambridge, MA: Harvard University Press.

Hackert, Stephanie. 2008. Counting and coding the past: Circumscribing the variable context in quantitative analyses of past inflection. *Language Variation and Change* 20(1). 127–154.

Hartsuiker, Robert J., Martin J. Pickering, and Eline Veltkamp. 2004. Is syntax separate or shared between languages? Cross-linguistic syntactic priming in Spanish-English multilinguals. *Psychological Science* 15. 409–414.

Ho, Mian Lian. 1981. *The noun phrase in Singapore English*. Melbourne: Monash University M.A. thesis.

Johnson, Daniel E. 2009. Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass* 3(1). 359–383.

Leimgruber, Jakob R. E. 2013. *Singapore English: Structure, variation, and usage*. Cambridge: Cambridge University Press.

Lim, Lisa (ed.). 2004. *Singapore English: A grammatical description*. Amsterdam: John Benjamins.

Nag, Sonali, and Balambigai Narayanan. 2019. Orthographic knowledge, reading and spelling development in Tamil: The first three years. In R. Malatesha Joshi and Catherine McBride (eds.), *Handbook of literacy in Akshara orthography*, 55–83. Cham: Springer.

Patrick, Peter L. 1999. *Urban Jamaican creole variation in the mesolect*. Amsterdam: John Benjamins.

Platt, John Talbot, and Heidi Weber. 1980. *English in Singapore and Malaysia: Status, features*, *functions*. Kuala Lumpur: Oxford University Press.

Poplack, Shana, and Sali Tagliamonte. 2001. *African American English in the diaspora*. Malden, MA: Blackwell.

Rickford, John R. 1987. Past tense marking in the Guyanese mesolect: A close look at Bonnette. In K. Denning, S. Inkelas, F. McNair-Knox, and J. Rickford (eds.), *Variation in language*, 379–394. Stanford, CA: Stanford University.

Ringbom, Hakan. 2011. Perceived redundancy or crosslinguistic influence? What L3 learners' material can tell us about the causes of errors. In Gessica de Angelis and Jean-Marc Dewaele (eds.), *New trends in crosslinguistic influence and multilingualism research*, 19–24. Bristol: Multilingual Matters.

Shirai, Yasuhiro, and Roger W. Andersen. 1995. The acquisition of tense-aspect morphology: A prototype account. *Language* 71(4). 743–762.

Shirai, Yasuhiro, and Atsuko Kurono. 1998. The acquisition of tense-aspect marking in Japanese as a second language. *Language Learning* 48(2). 245–279.

Singler, John Victor. 1990. *Pidgin and creole tense-mood-aspect systems*. Amsterdam: John Benjamins.

Smith, Carlota S. 1997. *The parameter of aspect*. 2nd ed. Dordrecht: Kluwer.

Starr, Rebecca Lurie, and Brinda Balasubramaniam. 2019. Variation and change in English /r/among Tamil Indian Singaporeans. *World Englishes*. https://doi.org/10.1111/weng.12357 (10 March 2019).

Tagliamonte, Sali, Shana Poplack, and Ejike Eze. 1997. Plural marking patterns in Nigerian Pidgin English. *Journal of Pidgin and Creole Languages* 12(1). 103–130.

Tan, Ying Ying. 2012. Age as a factor in ethnic accent identification in Singapore. *Journal of Multilingual and Multicultural Development* 33(6). 569–587.

Travis, Catherine E., Evan Kidd, and Rena Torres Cacoullos. 2017. Cross-language priming: A view from multilingual speech. *Bilingualism: Language and Cognition* 20(2). 283–298.

Treffers-Daller, Jeanine, and Carmen Silva-Corvalán (eds.). 2016. *Language dominance in bilinguals: Issues of measurement and operationalization*. Cambridge: Cambridge University Press.

Ullman, Michael T. 2005. A cognitive neuroscience perspective on second language acquisition: The declarative/procedural model. In Cristina Sanz (ed.), *Mind and context in adult second language acquisition: Methods, theory, and practice*, 141–178. Washington, DC: Georgetown University Press.

VanPatten, Bill. 1996. *Input processing and grammar instruction in second language acquisition*. Norwood, NJ: Ablex Publishing.

Wiltshire, Caroline R. 1999. The phonology of the past tense in Tamil. *Annual Meeting of the Berkeley Linguistics Society* 25(2). 42–53.

Winford, Donald. 1992. Back to the past: The BEV/creole connection revisited. *Language Variation and Change* 4(3). 311–357.

5 Semantically unique – *already got one*

As a result of crosslinguistic influence from ethnic languages like Chinese, Malay, and Tamil, a substantial number of commonly used English words in Colloquial Singapore English have expanded their semantic functions and are used in a different manner from Standard English. An in-depth investigation of three semantically unique words – *already*, *got*, and *one*, will be presented in this chapter. The examples below show how the semantic functions of these words have expanded in Colloquial Singapore English.

(1) She cannot sleep **already**.

'She is now in a state where she can no longer sleep.'

(2) She **got** two brothers.

'She has two brothers.'

(3) She very short-tempered **one**.

'She IS very short-tempered.'

In Example (1), *already* is used to indicate inchoative aspect (see Bao 2005; Teo 2019 among others). This means that *already* expresses the beginning of a state or event, and the state of 'not being able to sleep' in (1) had begun at a particular point of time in the past and still holds true at the time the sentence was uttered. In Example (2), *got* has a possessive meaning (Nomoto and Lee 2008), which means that the referent of *she* in (2) has two brothers. Lastly, in Example (3), *one* functions as a contrastive focus marker (Teo 2014). This means that *one* asserts or emphasizes the truth of the proposition that the referent of *she* in (3) is very short-tempered.

For the rest of this chapter, each word's semantic functions will be examined in detail, and they will be compared with the way in which they are used in Standard English. Following which, the manner in which similar words in the ethnic languages function will be described and an account of how these functions came to be transferred to Colloquial Singapore English will be provided. Thereafter, the manner in which the presence of parallel constructions between ethnic

languages and Colloquial Singapore English influence the synchronic use of these words will be investigated. Lastly, the way in which crosslinguistic influence from the ethnic languages interact with other social factors like English language proficiency and language attitudes will be examined.

Colloquial Singapore English *already*, *got*, and *one*

In the following sub-sections, the way *already*, *got*, and *one* are used in Colloquial Singapore English and how they differ from Standard English in terms of their syntax and semantics will be described.

Colloquial Singapore English already

Like Standard English, *already* in Colloquial Singapore English can express the meanings of 'change of state' and 'contrary to expectation' (Teo 2019). 'Change of state' refers to a new state or the starting of an event, while 'contrary to expectation' refers to a proposition that is contrary to a hearer's expectations. Examples (4) and (5) from Soh (2009: 624–625) will further illustrate these meanings.

(4) As people get older, their bodies are more able to float. Mostly this happens at puberty. John is only nine years old, but he **already** floats.

The *already* in Example (4) is used to indicate both 'change of state' and 'contrary to expectation'. A 'change of state' reading is available because *John* has transitioned from a state of not being able to float on water to a state of being able to float. Additionally, 'a contrary to expectation' reading is also available because most people will not think that *John* has the ability to float since he is only nine years old. In other words, the hearer's expectation will be that *John* cannot float on water. However, since he can float, it is contrary to the hearer's expectation.

(5) A: Hey, I have just come up with a magical chemical that will make oil float on water.

B: Don't be silly. Oil **already** floats on water.

Example (5) shows that a 'contrary to expectation' reading can be separate from a 'change of state' reading. In this case, a 'change of state' reading is not available because there is no state in which *oil* can float on water, hence, there is no change of state possible. On the other hand, 'a contrary to expectation' reading is available because speaker A apparently thinks that oil does not float on water. His or her expectation is that *oil* cannot float on water. However, since oil can float on water, it is contrary to his or her expectation.

Another similarity that Colloquial Singapore English *already* has with Standard English *already* is the syntactic frame that it appears in. In both varieties,

already can appear in sentence-initial, sentence-final, and pre-predicate positions (Bao 2015), or in this syntactic frame [_ subject _ predicate _]. Although the syntactic frame for both Colloquial Singapore English and Standard English *already* is the same, the most frequent syntactic position that *already* appears in is different for the two varieties. In Colloquial Singapore English *already* appears most frequently in the sentence-final position, whereas for Standard English *already* appears most frequently in pre-predicate position (Brown 1999).

The main difference between *already* in Colloquial Singapore English and *already* in Standard English is its ability to convey three different aspectual meanings – completive, inchoative, and prospective, without the need for periphrastic expressions to provide additional meaning. Completive aspect refers to actions that are carried out to completion; inchoative aspect refers to the beginning of an action or state; and prospective aspect refers to actions that will happen shortly in the immediate future.

(6) I say, yah the mother know, she call the mother **already**.

(Malay Female, 30 years old)

Example (6) shows how *already* can be used to convey that the action of calling her mother on the phone has been completed at speech time. This illustrates how *already* is used to indicate completive aspect.

(7) When they go army then after that come back work **already** mah.

'When they complete their military service and return to civilian life, they will start to work.'
(Tamil Male, 37 years old)

Example (7) shows how *already* can be used to convey that the state of having started work has happened sometime in the past and is still continuing at speech time. This illustrates how *already* is used to indicate inchoative aspect.

(8) She come home **already**.

'She is already on her way home.'

Example (8) shows how *already* can be used to convey that the action of returning home will be completed sometime in the near future. This illustrates how *already* can be used to indicate prospective aspect. Taken out of context, Example (8) actually has three possible readings. A completive reading – she has completed the action of coming home and is at home at speech time; an inchoative reading – she has finally moved back home from some other location and may or may not be physically at home at speech time; and a prospective reading – she is on her way home at speech time.

Unlike Standard English, Colloquial Singapore English *already* can appear in negative sentences because of its ability to mark inchoative aspect.

(9) Yah, some they also cannot make profit **already** ah.

'Yes, some of them can no longer make any profit.'
(Chinese Male, 55 years old)

Example (9) shows *already* appearing in a negative sentence to say that some store owners can no longer make a profit now. This is one of the more distinct difference between Standard English and Colloquial Singapore English, as *already* cannot appear in negative sentences for Standard English (Bao 2011).

To sum up, in terms of semantics, both Colloquial Singapore English *already* and Standard English *already* can express 'change of state' and 'contrary to expectation'. However, *already* in Colloquial Singapore English is able to convey three different aspectual meanings – completive, inchoative, and prospective, without the need to use periphrastic expressions to provide additional meaning. For instance, *already* in Example (10) can indicate inchoative aspect, which means that David has just started reading the book and has not finished it yet. On the other hand, Example (10) in Standard English can only mean that David has finished the book, if someone wants to indicate that he had just started reading it, he or she would have to include the verb *start* in the sentence.

(10) David read the book **already**.

'David just started reading the book.'

As mentioned previously, the ability to mark inchoative aspect allows Colloquial Singapore English *already* to appear in negative sentences like (11). This is impossible in Standard English as Standard English *already* is not an inchoative marker as illustrated by Example (10).

(11) Suzie cannot run **already**.

'Suzie cannot run anymore.'

Example (11) shows how Colloquial Singapore English *already* can appear in a negative sentence to indicate the beginning or start of a negative state. In this example, Suzie presumably ran so much that she no longer has the energy to run anymore.

In terms of syntax, both Colloquial Singapore English *already* and Standard English *already* can appear in the same syntactic frame – [_ subject _ predicate _]$_S$. However, the preferred syntactic position for *already* in both varieties is different.

(12a) I study **already**.

'I studied already.'

(12b) I **already** studied.

The preferred syntactic position for Colloquial Singapore English *already* is sentence-final position as shown in Example (12a) whereas the preferred syntactic position for Standard English *already* it the pre-predicate position as shown in Example (12b).

Colloquial Singapore English got

According to Nomoto and Lee (2008), *got* in Colloquial Singapore English is able to function as a passive, as shown by Example (13), and has the lexical meanings of 'to receive or obtain', as shown by Example (14), and 'to become', as shown by Example (15). All of these meanings are also available in Standard English.

(13) He **got** bullied in elementary school.

In Example (13), *got* is used in a passive sentence with the recipient of the action *bully* appearing as the grammatical subject of the sentence as opposed to being the grammatical object of a regular sentence.

(14) I **got** a present.

Example (14) illustrates *got* being used in the sense of 'to receive or obtain'. In this case, the speaker received a present from someone, and the present is now in the speaker's possession. As will be explained at the end of the next section, this implied notion of possession is what links English *got* with Chinese 有 *yǒu* 'have'.

(15) Her hair **got** wet.

Finally, Example (15) illustrates *got* being used in the sense of 'to become'. In this case, the hair of the referent of *her* has undergone a transformation from dry to wet.

In addition to these three uses of *got* in Standard English, Colloquial Singapore English *got* also has several other semantic functions that has no equivalent in Standard English (Nomoto and Lee 2008). These semantic functions include possession (see Example (16)), existence (see Example (17)), emphasis (see Example (18)), and realis modality marker that is compatible with the meanings of temporal location (see Example (19)) and various types of aspect (see Examples (20), (21), (22)).

(16) I the eldest, then **got** two brother and one sister.

'I am the oldest, and I have two brothers and one sister.'
(Chinese Male, 58 years)

Possessive *got* is used to indicate possession of something or someone. In Example (16), the speaker uses *got* to indicate that he has two brothers and a sister.

(17) West Coast park also **got** the sea and everything.

'There is a sea and many other things at West Coast park.'
(Chinese Female, 20 years)

Existential *got* is used to indicate that something exists in a particular location or place. In Example (17), the speaker uses *got* to indicate that the sea or ocean can be seen, among other things, at West Coast Park.

(18) I **got** more money than Tim.

'I have more money than Tim.'

Colloquial Singapore English *got* can also be used to indicate emphasis. In Example (18), *got* is used by the speaker to emphasize that he or she has more money than Tim. Such uses of *got* may appear in any kind of comparative sentence and is not limited to the syntactic structure in (18). For instance, *I got taller than him* is also possible.

As a realis modality marker that "marks situations that the speaker believes to be factual or highly likely as opposed to hypothetical or unlikely" (Nomoto and Lee 2008: 3), Colloquial Singapore English *got* is compatible with meanings that are related to temporal location and aspect (Nomoto and Lee 2008). It is important to note that Colloquial Singapore English *got* is neither a temporal location marker nor an aspectual marker and the temporal location and aspectual meanings are not encoded in its semantics but are instead derived from the wider linguistic context.

(19) She **got** go Malaysia.

'She has been to Malaysia/She is going to Malaysia.'

Colloquial Singapore English *got* is compatible with sentences that are related to temporal location. In Example (19), the situation of going to Malaysia can either be located in the past or in the present, thereby indicating someone as having been to a location or is heading to the location at speech time. Additionally, Colloquial Singapore English *got* is also compatible with meanings that are related to habitual aspect (see Example (20)), completive aspect (see Example (21)), and experiential aspect (see Example (22)).

(20) You **got** jog?

'Do you jog regularly.'

Example (20) illustrates how Colloquial Singapore English *got* is compatible with habitual aspect. In this example, *got jog* indicates the habit or regular occurrence of jogging by someone.

(21) The teacher **got** write down I very talkative.

'The teacher wrote down that I am very talkative.'
(Chinese Male, 55 years)

Example (21) illustrates how Colloquial Singapore English *got* is compatible with completive aspect. In this example, *got write down* indicates the completion of the action of writing down a particular comment by the teacher.

(22) Until now hah, I **got** see some children ah, their dialect also very good.

'Even until now, I do see some children who are very good at speaking their (Chinese) dialect.'
(Chinese Male, 55 years)

Example (22) illustrates how Colloquial Singapore English *got* is compatible with experiential aspect. In this example, *got see* indicates the previous experiences of seeing children who are very good at speaking their (Chinese) dialects.

Syntactically speaking, both Colloquial Singapore English *got* and Standard English *got* appear in the general syntactic frames of [subject + *got* + NP]$_S$ and [subject + *got* + VP]$_S$. However, on closer inspection, one can tell that Standard English *got* only appears in passive sentences when it precedes a verb phrase. This means that it appears in a more specific VP syntactic frame as follows: [subject + got + VP (by NP)]$_S$. We will see at the end of the next section the way in which this seeming syntactic similarity coupled with a functional similarity seen in Example (14) enabled Chinese-English speakers with a lower level of English proficiency to reanalyze *got* as a realis modality marker in Colloquial Singapore English.

To sum up, in terms of semantics, Colloquial Singapore English *got* and Standard English *got* both share the lexical meanings of 'to receive or obtain', 'to become', and the grammatical function of a passive. Furthermore, Colloquial Singapore English *got* has the additional semantic functions of possessive, existential, emphasis, and realis modality marker. In terms of syntax, both Colloquial Singapore English *got* and Standard English *got* appear in the syntactic frame [subject + *got* + NP]$_S$. While Standard English *got* appears only in passive sentences, as represented by [subject + got + VP (by NP)]$_S$, Colloquial Singapore English *got* can appear in the more general syntactic frame of [subject + *got* + VP]$_S$.

Colloquial Singapore English one

Like Standard English, *one* in Colloquial Singapore English has both a pronominal function and a numeral-related function (Teo 2014).

(23) Let us buy him the red **one**.

Example (23) illustrates the pronominal function of Standard English and Colloquial Singapore English *one*. The pronominal function of *one* allows it to refer to someone or something in the discourse or in the real world. In this case, *red one* refers to the gift the speaker and others are thinking of buying for someone, and the gift could be a shirt, a cap, or something else. As for its syntactic position, the pronominal function of *one* has the structural frame of [adj + one]$_{NP}$.

Numeral-related functions are functions that are related to the lexical meaning of *one* as a number.

(24) She built the doghouse in **one** day.
(25) I would like **one** (cup of coffee), thank you.

For numeral-related functions, *one* can either be an adjective (see Example (24)) or a stand-alone noun (see Example (25)). In Example (24), *one* modifies the noun *day*, indicating the duration of time that she spent on building the doghouse. As for Example (25), *one* functions as a stand-alone noun that indicates the number of cups of coffee the speaker wants. The numeral-related function of *one* has the structural frames of $[\text{one}]_{N}$ and $[\text{one N}]_{NP}$.

In addition to these two semantic functions, Colloquial Singapore English *one* can also function as a nominalizer and a contrastive focus marker (Teo 2014).

(26) Ah, so those uh, general . . . generally easy use **one**.

'Yes, for those that (words) are generally easy to use.'
(Chinese Male, 65 years)

(27) China **one** they must bring you to the place where you can eat.

'For places in China, you must allow them to bring you to the places where you can eat.'
(Chinese Female, 56 years)

As a nominalizer, *one* can co-occur with adjectival, nominal, prepositional, and verbal words or phrases to form a noun phrase. In Example (26), *one* co-occurs with an adjectival phrase to refer to words or vocabulary that are generally easy to use. On the other hand, *one* in Example (27) co-occurs with a proper noun, *China*, to refer to places in China. The structural frame of nominalizer *one* is $[\text{XP + one}]_{NP}$.

An important point to note is that the nominalizer function and the pronominal function overlaps in both their semantics and their syntactic frame. As mentioned earlier, there is a referent for pronominal *one* and this is also the case for nominalizer *one*. Additionally, the structural frame of pronominal *one* is $[\text{adj + one}]_{NP}$, and this is a subset of the structural frame of nominalizer *one*, which is $[\text{XP + one}]_{NP}$. This overlap means that Colloquial Singapore English *one* functions both as a pronominal and a nominalizer simultaneously, and this is illustrated in how *one* can even co-occur with a possessive noun like *my* (see Example (28)).

(28) The teacher likes my **one** better.

'The teacher likes mine (my painting) better.'

Example (28) shows how *one* co-occurs with *my* to form a nominal referent. In addition to being a noun phrase *my one* can also refer to a painting in a previous discourse or in the real world.

(29) Like the people in my school, their Chinese quite lousy **one**.

'Like the people in my school, their Chinese IS quite bad.'
(Chinese Female, 20 years old)

Lastly, *one* also has a contrastive focus marker function, which allows it to assert the truth of a proposition (see Teo 2014 for a detailed account). For instance, in Example (29), the speaker asserts that the proposition, 'students in her school do not speak good Chinese', is true. The structural frame of contrastive focus marker *one* is $[XP + one]_{XP}$.

To sum up, Colloquial Singapore English *one* has four semantic functions, namely, pronominal, numeral-related, nominalizer, and contrastive focus. In terms of syntax, *one* can appear in either of the following four structural frames: $[one]_{N}$, $[one\ N]_{NP}$, $[XP + one]_{NP}$, and $[XP + one]_{XP}$.

Crosslinguistic influence from ethnic languages

Without a doubt the differences in the way English is spoken in Singapore is to a large extent, the result of crosslinguistic influence from the other ethnic languages spoken in the country. As shown in the previous section on Colloquial Singapore English *already*, *got*, and *one*, the semantic functions of these words have expanded as compared to their functions in Standard English. In what follows, similar or parallel constructions (see Chapter 3 for a theory of parallel constructions) of these expanded semantic functions that are present in the ethnic languages will be described in detail.

Parallels for Colloquial Singapore English already

Chinese sentence-final le *and* yǐjing

As mentioned in the previous section, not only can Colloquial Singapore English *already* express 'change of state' and 'contrary to expectation'. It can also convey three different aspectual meanings – completive, inchoative, and prospective, without the need for periphrastic expressions to provide additional meaning. This is exactly identical to Chinese sentence-final *le*.[1]

Chinese sentence-final *le* is also often described as a marker of 'currently relevant state' (Li and Thompson 1981), this is similar to the perfect aspect in English (Comrie 1976), wherein "a new situation that has consequences at reference time" (Olsson 2013: 21) is marked. In addition to indicating current relevance, sentence-final *le* has also been analyzed as indicating the semantic meanings of 'change of state' and 'contrary to expectation' (Li and Thompson 1981; Sybesma 1999; Soh

2009), which is no different from Colloquial Singapore English *already*. Moreover, like Colloquial Singapore English *already*, sentence-final *le* is also able to convey the aspectual meanings of completive, inchoative, and prospective, without the addition of periphrastic expressions.

(30) 他 看 报纸 了
tā kàn bàozhǐ **le**
3SG see newspaper CRS
'He has read the newspaper/He has started reading newspapers/He is about to read the newspaper.'

Example (30) shows that sentence-final *le* can convey completive aspect, inchoative aspect, and prospective aspect when it co-occurs with the activity 'read newspaper'. In this case completive aspect would mean that the action of reading the newspaper has been completed; inchoative aspect would mean that the referent of *tā* 'he' does not read newspapers in the past but does so now; and prospective aspect would mean that the referent of *tā* 'he' is signaling that he is going to read the newspaper in the immediate future, either through his action or through verbal means. As there are three possible readings, narrowing it down to a particular reading depends on a situation's *aktionsart* and the linguistic context. For instance, if it is an achievement situation where the situation happens instantaneously, the sentence will be understood as completive (see Example (31)).

(31) 他 赢 了
tā yíng **le**
3SG win CRS
'He won (the race).'

In Example (31), as the action of winning a race happens instantaneously, the only possible interpretation is that he has completed the action of winning, hence, only a completive reading is possible. Other than sentence-final *le*, another linguistic item in Chinese that can indicate 'change of state' and 'contrary to expectation' is the adverb *yǐjing*. Not only is *yǐjing* semantically similar to Standard English *already*, it is also similar syntactically. Chinese *yǐjing* appears only in pre-predicate position, and that is one of the syntactic positions that *already* can appear in.

(32) 他 已经 看 报纸 了
tā **yǐjing** kàn bàozhǐ le
3SG already see newspaper CRS
'He has already read the newspaper.'

Example (32) shows *yjing* in pre-predicate position. It follows the subject *tā* 'he' and precedes the verb phrase *kàn bàozhǐ le* 'read the newspaper'. Chinese *yǐjing*

is glossed as *already* because it indicates the completion of the action of reading the newspaper prior to speech time, and presupposes the existence of a negative phase in which the newspaper was not read yet. It is important to note that, unlike sentence-final *le*, *yǐjing* is only compatible with a completive reading. Additionally, as shown in Example (32), *yǐjing* often co-occurs with sentence-final *le*, and the sentence will be ungrammatical without sentence-final *le*. In such sentences, sentence-final *le* indicates current relevance while *yǐjing* provides a completive reading. Such a sentence would also convey the semantic meanings of 'change of state' and 'contrary to expectation'.

As we have seen so far, both sentence-final *le* and *yǐjing* are possible sources of crosslinguistic influence on Colloquial Singapore English *already* (see Kwan-Terry 1989). Attestations of examples like *they already make their mindset already* 'They have already formed their mindsets' in the interview data, where there are two *already*'s, provide us with evidence that this is indeed the case. The two *already*'s appear in pre-predicate and sentence-final positions just like *yǐjing* and *le* in Example (32).

Malay sudah

The word that possesses the core semantics of 'change of state' and 'contrary to expectation' in Malay is *sudah*. Malay *sudah* can either be used as a main verb or as an auxiliary verb that can express completive, inchoative, and prospective aspects. As a main verb it has the meanings of 'complete' or '(be) ready' (Koh 1990). Example (33) shows how *sudah* can mean 'ready' in the context of finishing a letter.

(33)	Surat	itu	pun	**sudah**	lah
	letter	that	even	ready	DIS

'The letter was (finally) ready.'
(Koh 1990: 207)

As an auxiliary verb, *sudah* is able to convey the aspectual meanings of completive, inchoative, and prospective. It may also be reduced to the phonetic form *dah*, especially in informal situations. Like sentence-final *le*, whether a sentence has a completive, inchoative or prospective reading depends on both the situation's *aktionsart* and the linguistic context.

When *sudah* co-occurs with achievement and accomplishment situations, the sentence will be interpreted as completive (see Example (34)).

(34)	Kumpulan	itu	**sudah**	menang
	group	DET	already	win

'This group has won.'

Example (34) is an achievement situation of winning. As the group winning a competition is an instantaneous event, it can only be interpreted as completive, i.e. the event of winning is completed at speech time.

When *sudah* co-occurs with states, the sentence will be interpreted as inchoative (see Example (35)).

(35) Anak-nya **sudah** berjaya
child-3SG already successful
'His child is already successful.'

In Example (35), *sudah* co-occurs with the state of being successful. For this example, the sentence can only be interpreted as inchoative, i.e. the state of being successful has begun sometime in the past and is continuing at speech time.

Lastly, when *sudah* co-occurs with activities, the sentence is ambiguous between inchoative and completive readings when taken out of context (see Example (36)).

(36) Iwan **sudah** bekerja
Iwan already work
'Iwan already worked/Iwan has started to work.'
(modified after Grangé 2010: 254)

In Example (36), *sudah* co-occurs with the activity of working and is ambiguous between an inchoative reading and a completive reading. The sentence could mean either 'Iwan has started to work' or 'Iwan has already finished working'. Ambiguity in such sentences are resolved by taking into consideration the linguistic context in which the sentence was uttered.

Additionally, when *sudah* co-occurs with certain verbs like *datang* 'come', a prospective reading may also be possible (see Example (37)).

(37) Rafiz **sudah** datang
Rafiz already come
'Rafiz is about to arrive/Rafiz has arrived.'

In Example (37), *sudah* co-occurs with the verb *datang* 'come' and it is ambiguous between a prospective reading and a completive reading. It could mean either 'Rafiz is on his way here and will arrive soon' or 'Rafiz has already arrived'. Again, ambiguity in such cases can be resolved by taking into account the linguistic context.

From Examples (33) to (37), we can see that *sudah* appears primarily in pre-predicate position. However, in addition to the pre-predicate position, *sudah* can also appear in sentence-final position like in Example (38).

(38) ?Perjalanan yang melelahkan itu berakhir **sudah**
journey NMM tiring this finish already
'This exhausting journey is finally over.'
(Grangé 2010: 249)

Example (38) shows *sudah* appearing in sentence-final position. A survey administered to six Malay informants indicate that it is uncommon for *sudah* to appear in the sentence-final position. Some speakers even feel that a sentence with *sudah* in the sentence-final position is ungrammatical. The informants were asked to rate on a 1 to 5 scale with 1 corresponding to 'rarely' and 5 corresponding to 'almost all the time', how often they use *sudah* in sentence-final position. The average score for *sudah* is 1.33 and the average score for *dah* is 1.58.

Other than appearing in sentence-final position, *sudah* may also appear in negative sentences.

(39) ?Dia **sudah** tidak kaya.
3SG already NEG rich
'He is not rich now.'

Example (39) shows *sudah* appearing in a negative sentence. Similarly, a survey administered to six Malay informants indicate that it is uncommon for *sudah* to appear in negative sentences. Some speakers even feel that a negative sentence that contains *sudah* is ungrammatical. The informants were asked to rate on a 1 to 5 scale with 1 corresponding to 'rarely' and 5 corresponding to 'almost all the time', how often they use *sudah* in negative sentences. The average score for *sudah* is 1.17 and the average score for *dah* is 1.5. A plausible explanation is that *sudah* 'already' is most often used to mark a transition from a negative phase to a positive phase, and the reverse being less common. This phenomenon of 'already' being used primarily to indicate a transition from a negative phase to a positive phase will be discussed in greater detail in the next section when we examine the way in which parallel constructions in the ethnic languages influence how Colloquial Singapore English is spoken.

On top of indicating 'change of state' and 'contrary to expectation', Malay *sudah* also has the discourse-pragmatic function of marking 'a new situation that has consequences at reference time' (Olsson 2013: 21) or to indicate current relevance. All of these functions are exactly identical to Chinese sentence-final *le*. Despite these similarities, there are still important and significant differences between Chinese sentence-final *le* and Malay *sudah*, and as we shall see later, they have important consequences for how Chinese and Malay speakers use Colloquial Singapore English *already* differently. First, the concept of 'expectations' is inherent to the semantics of Malay *sudah* but not Chinese sentence-final *le* (Olsson 2013). For Malay *sudah*, the outcome of the transitional change is neither expected nor hoped for by the speaker (see Example (40a)).

(40a) ?Dia **sudah** jatuh sakit
3SG already fall sick
'He has become sick.'
(modified after Olsson 2013: 31)

(40b) 他 病 了
tā bìng **le**
3SG sick CRS
'He has become sick.'

Example (40a) is odd in Malay because the outcome of becoming sick is not something that the speaker hopes to happen on the referent of *dia* 'he'. Another example of a sentence that is odd in Malay is when someone describes the loss of someone's wallet (Olsson 2013). Again, this is a situation that no one would wish or hope to happen. Both sentences are perfectly alright in Chinese and are fairly common in everyday speech (see Example (40b)).

Second, Chinese sentence-final *le* has other discourse functions that Malay *sudah* does not have. For instance, sentence-final *le* can be used to end a statement by "tagging it as the speaker's total contribution as of that moment" (Li and Thompson 1981: 283). To sum up, compared to Malay *sudah*, Chinese sentence-final *le* has fewer restrictions on its use and can therefore appear in a wider range of sentences. The use of *already* in negative sentences by different ethnic groups will be quantified in the next section to provide evidence that parallel constructions in the different ethnic languages exerts an influence on the way in which speakers use *already* in Colloquial Singapore English.

Tamil ēṟkaṉavē

In Tamil, the closest equivalent to Colloquial Singapore English *already* is *ēṟkaṉavē*. Not only do English-Tamil dictionaries give the translation to this Tamil word as *already* (e.g., Concise English – English Tamil dictionary, Jose 2007), Tamil informants also provided *ēṟkaṉavē* as an equivalent to Standard English *already*.

(41) அவன் ஏற்கனவே அரிசியை சாப்பி-ட்-டான்
avan **ēṟkaṉavē** ariciyai cāpp-iṭ-ṭāṉ
3SG already rice eat-PST-PNG
'He already ate the rice.'

The word *ēṟkaṉavē* 'already' in Example (41) indicates that the referent of *avan* 'he' has completed the action of eating the rice. This not only expresses a change of state from 'not having finished the rice' to 'finished eating the rice', it is also contrary to the hearer's expectation, who thinks that the referent has not finished eating yet. Unlike Chinese sentence-final *le* and Malay *sudah*, *ēṟkaṉavē* 'already' can only convey completive aspect because Tamil has grammatical tense which restricts the use of *ēṟkaṉavē* to past events. As for syntactic position, *ēṟkaṉavē* 'already' is only able to appear in the pre-predicate position.

With regard to appearing in negative sentences, *ēṟkaṉavē* 'already' does not appear frequently in negative sentences but it is still possible for it to appear in one (see Example (42)).

(42) அவருக்கு ஏற்கனவே தூங்க-முடியாது
avarukku **ēṟkaṉavē** tūṅka-muṭiyātu
3SG already sleep-NEG
'He already cannot sleep (past event only).'

Example (42) is an instance of the way in which *ēṟkaṉavē* 'already' can be used in a negative sentence. In this example, *ēṟkaṉavē* 'already' conveys the sense that the referent of *avarukku* 'he' was unable to sleep in the past. It cannot be used to indicate that the referent is unable to sleep in the future. In the sense that someone is unable to sleep in the future, a different adverb, *iṉimilēyē* 'henceforth', is used instead (see Example (43)).

(43) அவனுக்கு இனிமிலேயே தூங்க-முடியாது
avaṉukku **iṉimilēyē** tūṅka-muṭiyātu
3SG henceforth sleep-NEG
'He can no longer sleep.'

To express the sense that someone cannot sleep from this moment on, a Tamil speaker would have to use the adverb *iṉimilēyē* 'henceforth'. This is different from Chinese sentence-final *le* and Malay *sudah*, which are able to convey an inchoative aspect for future events. Just like Chinese *yǐjing* and Malay *sudah*, sentences like Example (42) are less common because *ēṟkaṉavē* 'already' is also most frequently used to mark a transition from a negative phase to a positive phase.

***Parallels for Colloquial Singapore English* got**

Chinese yǒu

As mentioned in the previous section, Colloquial Singapore English *got* shares with Standard English *got* the lexical meanings of 'to receive or obtain', 'to become', and the grammatical function of a passive. On top of that, Colloquial Singapore English *got* has the other semantic functions of possessive, existential, emphasis, and realis modality marker. Syntactically, Colloquial Singapore English *got* appears in the syntactic frames of [subject + *got* + NP]$_S$ and [subject + *got* + VP]$_S$. All of the expanded semantic functions of Colloquial Singapore English *got* and its syntactic frames correspond to Chinese 有 *yǒu* 'have'. In what follows, each of the equivalent semantic function of *yǒu* will be described in greater detail.

(44) 我 有 一 只 猫
wǒ **yǒu** yī zhī māo
1SG POSS one CL cat
'I have a cat.'

Like possessive *got*, Chinese *yǒu* can also be used to indicate possession of something or someone. In Example (44), the speaker uses *yǒu* to indicate that he or she owns a cat. Additionally, Chinese *yǒu* also appears in the same syntactic frame as possessive *got*, [subject + *yǒu* + NP]$_S$, where *wǒ* 'I' is the subject and *yī zhī māo* 'a cat' is the noun phrase.

(45) 桌 上 有 一 本 书
zhuō shàng **yǒu** yī běn shū
table top EXST one CL book
'There is a book on the table.'

Existential *yǒu* is used to locate the existence of something or someone in a particular place. In Example (45), the speaker uses *yǒu* to indicate that there is a book on the table. The syntactic frame for existential *yǒu* is the same as possessive *yǒu*, i.e. [subject + *yǒu* + NP]$_S$. In this example, *zhuō shàng* 'table-top' is the subject and *yī běn shū* 'a book' is the noun phrase.

(46) 我 有 比 他 高
wǒ **yǒu** bǐ tā gāo
1SG EMP COM 3SG tall
'I AM taller than him.'

Additionally, Chinese *yǒu* can also be used to indicate emphasis. In Example (46), *yǒu* is used by the speaker to emphasize that he or she is indeed taller than some other person. Like Colloquial Singapore English *got*, Chinese *yǒu* can also appear in all kinds of comparative sentences to provide emphasis.

The temporal location and aspectual related meanings of Colloquial Singapore Mandarin *yǒu* as illustrated by Examples (47) and (48) has been described as affirming the existence of a state or event (Han 2017), and this is in line with Nomoto and Lee's (2008) description of Colloquial Singapore English *got* as a realis modality marker.

(47) 他 有 去 中国
Tā **yǒu** qù Zhōngguó
3SG REA go China
'He has been to China/He is going to China.'

Identical to Colloquial Singapore English *got*, Chinese *yǒu* can be used to locate a situation in time. In Example (47), the situation of going to China can either be

located in the past or in the present, thereby indicating someone as having been to a location or is heading to the location at speech time. The syntactic frame for this usage of *yǒu* is [subject + *yǒu* + VP]$_S$. In this example, *tā* 'he' is the subject and *qù Zhōngguó* 'go to China' is the verb phrase.

Additionally, Chinese *yǒu* is also compatible with habitual aspect (see Example (48a)), completive aspect (see Example (48b)), or experiential aspect (see Example (48c)). The syntactic frames for these aspectual meanings of *you* are the same as temporal location *yǒu*, i.e. [subject + *yǒu* + VP]$_S$.

(48a) 我 有 打 篮球
wǒ **yǒu** dǎ lánqiú
1SG REA hit basketball
'I play basketball regularly.'

Example (48a) illustrates how Chinese *yǒu* is compatible with habitual aspect. In this example, *yǒu dǎ lánqiú* 'play basketball regularly' indicates the habit or regular occurrence of playing basketball by the speaker. The subject here is *wǒ* 'I' and the verb phrase is *dǎ lánqiú* 'play basketball'.

(48b) 他 今天 有 看 电视
tā jīntian **yǒu** kàn diànshì
3SG today REA see television
'He watched television today.'

Example (48b) illustrates how Chinese *yǒu* is compatible with completive aspect. In this example, *yǒu kàn diànshì* 'watched television' indicates the completion of the action of watching television by the referent of *tā* 'he'. The subject here is *tā* 'he' and the verb phrase is *kàn diànshì* 'watch television'.

(48c) 他 有 吃 过 榴莲
tā **yǒu** chī guo liúlián
3SG REA eat EXP durian
'He ate durians before.'

Example (48c) illustrates how Chinese *you* is compatible with experiential aspect. In this example, *yǒu chī guo liúlián* indicates the fact that the subject has prior experience of eating durian. The subject here is *tā* 'he' and the verb phrase is *chī guo liúlián* 'ate durian before'.

To facilitate the previous discussion of Chinese *yǒu*, it has been talked about broadly as if there are no differences between the different varieties of Chinese. In fact, the use of Standard Mandarin *yǒu* is very different from its use in Southern varieties of Chinese, so much so that they are even pronounced differently. For example, the counterpart of Mandarin *yǒu* in Southern Min is *u* and in Cantonese, it is *yáuh*. Semantically, only the semantic functions of existence and possession are

shared among all Chinese varieties. The functions of emphasis and realis modality marker are only present in Southern varieties like Southern Min and Cantonese, both of which are present in the language ecology of Singapore. Although both Southern Min and Cantonese are in the language ecology of Singapore, many younger Singaporeans can no longer speak these varieties. Furthermore, even though these colloquial functions of Mandarin *yǒu* are attested in Colloquial Singapore Mandarin (Han 2017), the extent to which younger Singaporeans use such functions depends to a large extent on the individual proficiency level and his or her attitude toward Colloquial Singapore Mandarin. In short, the use of Colloquial Singapore English *got* may not be motivated by parallel constructions in the Chinese language, since the use of *yǒu* for the functions of emphasis and realis modality marker may not even be part of younger speakers' Chinese language repertoire. As we shall see in the next section, none of the younger Chinese speakers used *got* as a realis modality marker during the entire duration of their sociolinguistic interviews.

Malay ada

Of all the expanded functions of Colloquial Singapore English *got*, Malay *ada* shares with it the two semantic functions of possession and existence.

(49) Dia **ada** dua abang
3SG POSS two brother
'He has two brothers.'

Like possessive *got*, Malay *ada* can also be used to indicate possession of something or someone. In Example (49), the speaker uses *ada* to indicate that he has two brothers. Additionally, Malay *ada* also appears in the same syntactic frame as possessive *got*, [subject + *ada* + NP]$_S$, where *dia* 'he' is the subject and *dua abang* 'two brothers' is the noun phrase.

(50) Sekolah **ada** dua ratus budak-sekolah
school EXST two hundred boy-school
'The school has two hundred schoolboys.'

Existential *ada* is used to locate the existence of something or someone in a particular place. In Example (50), the speaker uses *ada* to indicate that there are two hundred schoolboys in the school. The syntactic frame for existential *ada* is the same as possessive *ada*, i.e. [subject + *ada* + NP]$_S$. In this example, *sekolah* 'school' is the subject and *dua ratus budak-sekolah* 'two hundred schoolboys' is the noun phrase.

It is important to note that Malay *ada* does not have the semantic functions of emphasis or realis modality marker and this is reflected in Malay speakers' use of Colloquial Singapore English *got*, which will be discussed in the next section.

Tamil iruk

In the Tamil language, the word *iruk* is similar to the English *be* verb and it can mean 'there is' or 'there are' according to different linguistic contexts. Like Colloquial Singapore English *got*, the word *iruk* can be used to express the dual semantic functions of possession and existence.

(51)

அவனி-டம்	பத்து	வெள்ளி	இருக்-கிற-து
avaṉ-iṭam	pāttu	veḷḷi	**iruk**-kiṟa-tu
3SG-LOC	ten	silver	be-PRS-PNG

'There is ten dollars on him.'

Like possessive *got*, Tamil *iruk* can also be used to indicate possession of something or someone. In Example (51), the speaker uses *iruk* to indicate that he has ten dollars. Syntactically, however, Tamil *iruk* appears at the end of the sentence as Tamil is an SOV language. This is in contrast to the pre-predicate position of Colloquial Singapore English *got*. In other words, Tamil *iruk* appears in the following syntactic frame, [subject + NP + *iruk*]$_S$, which is different from possessive *got*. In Example (51), *avaṉ-iṭam* 'on him' is the subject and *pāttu veḷḷi* 'ten dollars' is the noun phrase.

(52)

அந்த	பள்ளி-யில்	இருநூறு	மாணவர்கள்	இருக்-கிறார்-கள்
anta	paḷḷi-yil	irunūṟu	māṇavarkaḷ	**iruk**-kiṟār-kaḷ
that	school-LOC	two hundred	students	be-PRS-PNG

'There are two hundred students in that school.'

Similarly, Tamil *iruk* can be used to locate the existence of something or someone in a particular place. In Example (52), the speaker uses *iruk* to indicate that there are two hundred students in the school. The syntactic frame for existential *iruk* is the same as possessive *iruk*, i.e. [subject + NP + *iruk*]$_S$. In this example, *anta paḷḷi-yil* 'in that school' is the subject and *irunūṟu māṇavarkaḷ* 'two hundred students' is the noun phrase.

Like Malay *ada*, Tamil *iruk* does not have the other semantic functions of emphasis and realis modality marker, and this is also reflected in the way in which Tamil speakers use *got*. This suggests that crosslinguistic associations between words do occur at a semantic level (see Wasserscheidt 2015), since Tamil *iruk* does not share the same syntactic frame as Colloquial Singapore English *got*.

***Parallels for Colloquial Singapore English* one**

Chinese de

As mentioned in the previous section, Colloquial Singapore English *one* has four semantic functions, namely, pronominal, numeral-related, nominalizer, and

contrastive focus. In terms of syntactic frames, *one* can appear in either of the following four structural frames: $[\text{one}]_{N}$, $[\text{one N}]_{NP}$, $[\text{XP + one}]_{NP}$, and $[\text{XP + one}]_{XP}$. Out of the four semantic functions, pronominal and numeral-related functions are from Standard English *one*, while nominalizer and contrastive focus functions are transferred from Chinese 的 *de*. Chinese *de* has an additional function that did not get transferred to Colloquial Singapore English, and that is the nominal modification function that is closely related to its nominalizer function.[2]

(53a)	这	是	妈妈	的	书
	zhè	shì	māma	**de**	shū
	this	is	mother	NMM	book

'This is my mother's book.'

(53b)	这	是	妈妈	昨天	在	书店	买	的	书
	zhè	shì	māma	zuótiān	zài	shūdiàn	mǎi	**de**	shū
	this	is	mother	yesterday	at	bookstore	buy	NMM	book

'This is the book that my mother bought yesterday at the bookstore.'

Examples (53a) and (53b) illustrate how Chinese *de* functions as a nominal modification marker. When *de* functions as a nominal modification marker, it connects a modifier to a noun and the relationship between the modifier and the nominal head is determined by the linguistic context and the respective meanings of each part. In (53a), the relationship is that of possession as the book belongs to the speaker's mother. In (53b), the relationship is that of an attribute that the book has, i.e. the book was bought by the speaker's mother yesterday at the bookstore. Syntactically speaking, the modifier can be a word like in (53a), *māma* 'mother'; a phrase like *hóng sè* 'red color'; or even a clause, as in (53b), *māma zuótiān zài shūdiàn mǎi* 'mother bought yesterday at the bookstore'. When *de* functions as a nominal modification marker, it appears in the structural frame, $[\text{modifier + } de \text{ + N}]_{NP}$.

The nominal modification function is closely related to the nominalizer function of Chinese *de* as the nominal head in (53a) and (53b), *shū* 'book', can be omitted when the linguistic context makes it clear what the referent is, leaving *de* as the nominal head of a noun phrase. When this happens, *de* functions as a nominalizer, or in other words, it becomes the nominal head of a noun phrase.

(54a)	这	是	妈妈	的	（书）
	zhè	shì	māma	**de**	(shū)
	this	is	mother	NMZ	(book)

'This is my mother's (book).'

(54b)	我	会	说	容易	的	（词汇）
	wǒ	huì	shuō	róngyì	**de**	(cíhuì)
	1SG	know	say	easy	NMZ	(vocabulary)

'I know how to say the easy ones.'

Examples (54a) and (54b) illustrate how Chinese *de* functions as a nominalizer. In these examples, *de* is the nominal head of the noun phrase, *māma de* 'mother's (book)', in (54a) and the nominal head of the noun phrase, *róngyì de* 'easy ones', in (54b). Chinese *de* can co-occur with adjectival, nominal, and verbal words or phrases to form a noun phrase and it appears in the following structural frame, $[XP + de]_{NP}$.

Lastly, Chinese *de* also has a contrastive focus function that allows it to assert the truth of a proposition (see Example (55)).

(55) 他 很 善良 的
tā hěn shànliáng **de**
3SG very kind CFM
'He IS very kind.'

In Example (55), the speaker asserts that the proposition, 'he is kind,' is true. The structural frame of contrastive focus marker *de* is $[XP + de]_{XP}$, where X can be a phrase or a clause.

If we compare the structural frames of Standard English *one* with those of Chinese *de*, we will see that what happened in Colloquial Singapore English is that the phrase-final uses of Standard English *one* like *big one* or *green one*, have extended to incorporate the phrase-final uses of Chinese *de*, namely the nominalizer function and contrastive focus function.

Malay and Tamil

In the literature on Colloquial Singapore English, the sole source of the expanded functions of Colloquial Singapore English *one* has been identified as Chinese *de* (see Gupta 1992; Bao 2009 among others). This is corroborated by my Malay and Tamil informants as they have confirmed that there is no linguistic item in Malay or Tamil that behaves similarly to Chinese *de*.

The expansion of semantic functions for already*,* got*, and* one

The parallel constructions between the ethnic languages and Colloquial Singapore English described in this section are important in helping us to understand the motivation behind the expansion of the semantic functions of Colloquial Singapore English *already*, *got*, and *one*. For an innovation to spread in the speech community and be widely used by the majority of speakers, especially in a community where there is strong normative pressure to speak Standard English, the basis for linguistic change has to come from the target language, or Standard English, in the case of Colloquial Singapore English. Nevertheless, the motivation or impetus for the change would still come from a bilingual's knowledge of his or her ethnic language.

One of the main drivers of linguistic innovation in Colloquial Singapore English is the fact that certain linguistic features in the ethnic languages can be used in

identical linguistic contexts as certain features in Standard English. The existence of these identical contexts between two language varieties allow speakers to view an English feature as the equivalent of an ethnic language feature, thereby expanding the semantic functions of the English feature to include those of the ethnic language feature. Examples (56) to (58) exemplify the linguistic contexts that motivate the expansion of the semantic functions of Colloquial Singapore English *already*, *got*, and *one*.

(56a) I **already** ate.
(56b) Saya **sudah** makan
1SG already eat
'I already ate.'

Examples (56a) and (56b) show how Malay *sudah* 'already' can appear in the same linguistic context as Standard English *already* in indicating the completion of eating. Such identical contexts of use allow Malay-English bilinguals to identify *already* as equivalent to *sudah*. This motivates Malay-English bilinguals to expand the functions of *already* to the full extent of what *sudah* can do in Malay. As mentioned earlier in this section, there are also linguistic features in Chinese and Tamil that are similar to Standard English *already*.

(57a) I've **got** five dollars.
(57b) I **got** a present.
(57c) Saya **ada** lima dolar
1SG POSS five dollar
'I've got five dollars.'

Examples (57a) and (57c) show how Malay *ada* can appear in the same linguistic context as Standard English *have got* in indicating possession. Since *have* in *have got* is usually shortened to *-ve* in speech and is perceptually non-salient, Colloquial Singapore English *got* begins to take on the meaning of possession as *–ve* and *got* frequently co-occur together. Additionally, even in Standard English, *got* has the meaning of 'to receive or to obtain' (see Example (57b)), which implies 'possession' as obtaining something suggests the thing is now in that person's possession. Like regular semantic change, such conversational implicatures can sometimes be incorporated into the core semantics of a word or phrase (Hopper and Traugott 2003).

As for Chinese speakers who use 有 *yǒu* as a realis modality marker (see previous discussion on Chinese *yǒu*) and have a beginner level of proficiency in English, they will also likely expand the semantic functions of *got* to include the function of a realis modality marker due to a superficial syntactic similarity as shown in Example (57d).

(57d) She **got** hit (by a bike).

Since Standard English *got* can appear in passive sentences like (57d), it appears to speakers who have a beginner level of English proficiency that *got* can appear in the syntactic frame '*got* + VP'. This is precisely the syntactic frame that realis modality marker *yǒu* appears in, and these speakers will very likely use *got* as a realis modality marker as in the example *she got buy lunch* 'she did buy lunch'.

(58a) I want the red **one**.

(58b)	我	要	红	的
	wǒ	yào	hóng	**de**
	1SG	want	red	NMZ

'I want the red one.'

Examples (58a) and (58b) show how Chinese *de* can appear in the same linguistic context as Standard English *one* in indicating reference to something that is red in color. Such identical contexts of use allow Chinese-English bilinguals to extend the use of *one* to other contexts. As mentioned earlier in this section, Colloquial Singapore English *one* is the only linguistic feature where there are no equivalent words or phrases in the Malay and Tamil languages. We shall see in the next section that this has an influence on the differential use of Colloquial Singapore English *one* by the three ethnic groups.

To conclude, the main motivation for the transfer of semantic functions from the ethnic languages to Colloquial Singapore English is the fact that certain linguistic features in the ethnic languages can be used in precisely the same linguistic contexts as certain Standard English features.

Parallel constructions and their influence on the synchronic use of *already*, *got*, and *one*

As mentioned previously in Chapter 3, certain parallel constructions between different languages are stored in the same associational semantic network in the bilingual mind and the presence of these parallel constructions have a direct influence on a bilingual's synchronic speech production. In what follows we will investigate how the parallel constructions described in the ethnic languages influence the way different ethnic groups in Singapore use *already*, *got* and *one*. This section will conclude with a brief discussion of the way in which such differences in synchronic use may be related to diachronic change in Colloquial Singapore English.

Use of already *in Colloquial Singapore English*

In Teo's (2019) study of Colloquial Singapore English *already*, he has shown how Malay and Chinese speakers use *already* differently because of crosslinguistic influence from their respective ethnic languages. In this section on Colloquial Singapore English *already*, additional data on Tamil speakers' use of *already* will

also be included, and it will be demonstrated that they too, are influenced by their ethnic language, Tamil. Two possible aspects of crosslinguistic influence on Colloquial Singapore English *already* will be investigated in this section. First, the preferred syntactic position of *already*; second, the appearance of *already* in negative sentences like *no more already* 'there is none left'.

Table 5.1 is a summary of Colloquial Singapore English *already* and the corresponding linguistic items in the ethnic languages that function similarly. For more information about each individual linguistic item, please see the descriptions in the previous sections about Colloquial Singapore English *already* and its parallels in the ethnic languages.

From the table, we can see that Chinese has two words, sentence-final *le* and *yǐjing*, that function similarly to Colloquial Singapore English *already* even though they are syntactically distinct. Another important distinction between these two words is that *yǐjing* gives a completive reading while sentence-final *le* can express the full range of interpretations, namely, completive, inchoative, and prospective. That is to say, when Colloquial Singapore English *already* is used in a completive sense by a Chinese speaker, it has two possible sources of crosslinguistic influence; but when it is used in a non-completive sense, the only possible source of crosslinguistic influence is sentence-final *le*. If crosslinguistic influence from Chinese has a strong effect on the way in which Chinese speakers

Table 5.1 Comparison of Colloquial Singapore English, Mandarin, Malay, and Tamil

	Colloquial Singapore English already	*Chinese sentence-final* le	*Chinese* yǐjing	*Malay* sudah	*Tamil* ēṟkaṉavē
Possible interpretations	completive, inchoative, prospective	completive, inchoative, prospective	completive	completive, inchoative, prospective	completive
Interaction with aktionsarten	occurs with all situation types	occurs with all situation types	occurs with all situation types (usually occurs with sentence-final *le*)	occurs with all situation types	occurs with all situation types
Syntactic position	pre-predicate, sentence-final	sentence-final	pre-predicate	pre-predicate, sentence-final	pre-predicate
Appear in negative sentences	Yes	Yes, very common	Yes, but less common	Yes, but less common	Yes, but less common

Source: Modified after Teo 2019: 361

use Colloquial Singapore English *already*, there will be a strong preference for *already* used in non-completive interpretations to appear in sentence-final position. On the contrary, there is no such syntactic distinction in the use of *already* by Malay and Tamil speakers since both *sudah* and *ēṟkaṉavē* appear primarily in a single position. Therefore, there should be no difference in syntactic preference regardless of whether *already* is used in a completive or a non-completive sense. In addition to a possible difference in syntactic position, the appearance of *already* in negative sentences is also how Chinese speakers will differ from Malay and Tamil speakers if there is a strong effect of crosslinguistic influence. As shown in Table 5.1, Chinese speakers frequently use negative sentences in sentence-final *le* constructions and Malay and Tamil speakers seldom use *sudah* or *ēṟkaṉavē* in negative sentences.

In terms of the coding of the interview data, a token that indicates a completed event that is not continuing at speech time or some other reference time is coded as 'completive', and a token that indicates inchoative or prospective aspect at speech time or some other reference time is coded as 'non-completive'.

Syntactic position of already

The overall data presented in Figure 5.1 shows how Chinese speakers tend to prefer the sentence-final position for *already* as compared to Malay and Tamil speakers. Sentence-final position constitutes 70.6% of the total tokens spoken by Chinese speakers while the same position only constitutes 50.5% and 55.3% for the Malay and Tamil speakers respectively. Applying Pearson's 2x2 Chi-squared test without Yates' continuity correction to the data, results show that Chinese and Malay speakers are statistically different ($p = 0.0009845$); Chinese and Tamil speakers are statistically different ($p = 0.04429$); and Malay and Tamil speakers are not statistically different ($p = 0.595$). To ascertain that the difference observed in Figure 5.1 is driven by influence from Chinese sentence-final

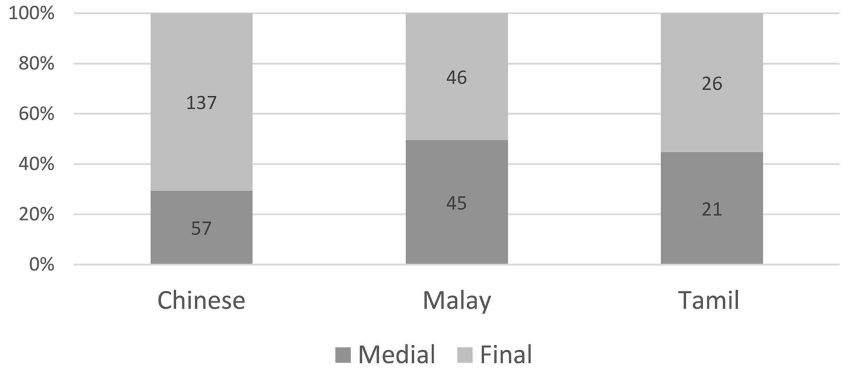

Figure 5.1 Frequencies of *already* according to syntactic position

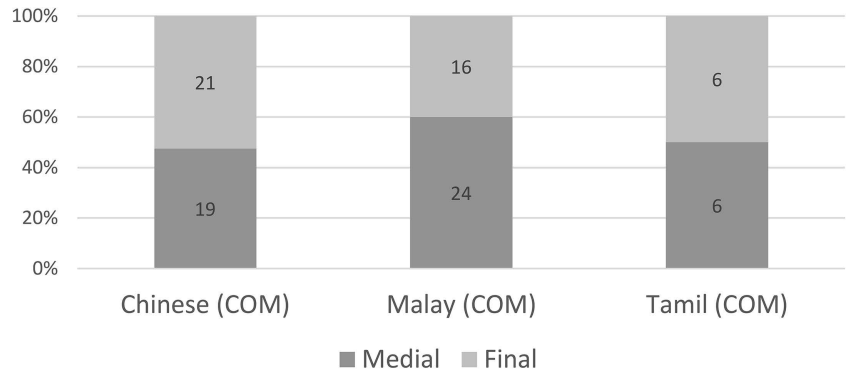

Figure 5.2 Frequencies of *already* according to syntactic position (completive)

le, the data is further broken down into completive and non-completive uses of *already*.

Figure 5.2 shows that Malay and Tamil speakers do not differ significantly from the overall data whereas Chinese speakers are behaving differently in terms of their preferred syntactic position for *already*. Unlike in the overall data where 70.6% of *already* tokens spoken by the Chinese speakers are in sentence-final position, only 52.5% of the completive *already* spoken by Chinese speakers is in sentence-final position. Such a difference can be explained by the effects of crosslinguistic influence from Chinese. For the completive sense of *already*, both Chinese *yǐjing* and sentence-final *le* are possible sources of crosslinguistic influence. Since *yǐjing* appears in pre-predicate position and *le* in sentence-final position, there is no longer a single tendency to use *already* in a particular syntactic position (compare Examples (59a) and (59b)).

(59a) I **already** used up two (chances).

(Chinese Female, 22 years old)

(59b)	我	已经	用	掉	两	个	（机会）	了
	wǒ	**yǐjing**	yòng	diào	liǎng	ge	(jīhuì)	le
	1SG	already	use	drop	two	CL	(chance)	CRS

'I already used up two (chances).'

Example (59a) is an example from the interview data where a Chinese speaker uses completive *already* in a pre-predicate position. A possible Chinese translation of (59a) is shown in (59b) and this demonstrates the two possible sources of crosslinguistic influence on Colloquial Singapore English *already* when it is used in a completive sense. One is *yǐjing* in pre-predicate position and the other is *le* in sentence-final position.

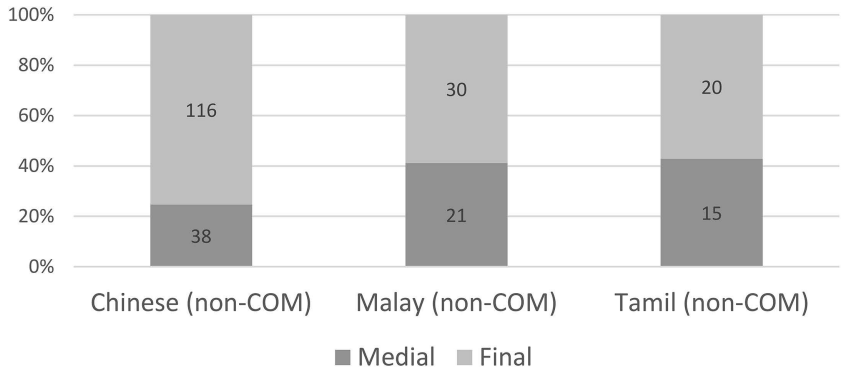

Figure 5.3 Frequencies of *already* according to syntactic position (non-completive)

The data presented in Figure 5.3 is unlike what we have in Figure 5.2 previously. It shows all speakers behaving similarly to the overall data as shown in Figure 5.1 – Chinese speakers preferring the sentence-final position while Malay and Tamil speakers having no particular preference for either pre-predicate or sentence-final positions. From Figure 5.3, we see that 75.3% of non-completive *already* spoken by the Chinese speakers appear in sentence-final position. This is in contrast to 58.8% and 57.1% by Malay and Tamil speakers respectively. Applying Pearson's 2x2 Chi-squared test without Yates' continuity correction to the data, results show that Chinese and Malay speakers are statistically different ($p = 0.02407$); Chinese and Tamil speakers are statistically different ($p = 0.03066$); and Malay and Tamil speakers are not statistically different ($p = 0.8767$).

Just like completive *already*, differences among these three ethnic groups in their use of non-completive *already* can also be explained by crosslinguistic influence. For the Chinese speakers, since the only source of crosslinguistic influence for non-completive *already* is sentence-final *le*, parallel constructions between Chinese and Colloquial Singapore English motivate the use of *already* in sentence-final position (compare Examples (60a) and (60b)).

(60a) They won't contact you anymore **already**.

'They will not contact you anymore.'
(Chinese Male, 28 years old)

(60b)	他们	不	会	再	联系	你	了
	tāmen	bú	huì	zài	liánxì	nǐ	**le**
	3PL	NEG	will	again	contact	2SG	CRS

'They will not contact you again.'

Example (60a) is an example from the interview data where a Chinese speaker uses non-completive or inchoative *already* in a sentence-final position. A possible Chinese translation of (60a) is shown in (60b) and this demonstrates that sentence-final *le* is the sole possible source of crosslinguistic influence on Colloquial Singapore English *already* when it is used in a non-completive sense. On the other hand, for Malay and Tamil speakers, since there is no distinction in the syntactic position between completive and non-completive senses of *already* in the Malay and Tamil languages, there is no strong preference for a particular syntactic position regardless of whether we are analyzing completive *already* or non-completive *already*. Nevertheless, as shown in Figure 5.3, Malay and Tamil speakers seem to have a slight tendency to use non-completive *already* more frequently in a sentence-final position. This is most likely due to the sentence-final position being the most common position for non-completive *already* in the language input they receive, as a majority of speakers in Singapore are Chinese-English bilinguals, and they prefer to use non-completive *already* in sentence-final position.

The use of already *in negative sentences*

As Olsson (2013) pointed out, the concepts of 'no longer', 'no more' or 'not anymore' can be expressed in many languages, including Chinese Mandarin and Malay by combining 'already' with a negator. Nevertheless, as the core sense of 'already' is to mark a transition from a negative to a positive phase, it is often associated with a presupposition about a prior 'negative state' (Löbner 1989). As such, it appears more frequently in positive sentences than negative ones. Quantitative data from a Chinese corpus helps to support this point. The Center for Chinese Linguistics PKU Mandarin corpus (2019) contains a total of 231, 780 tokens of Chinese *yǐjing* 'already' (see previous section for more information about *yǐjing*). Of these 231, 780 tokens, only 4.6% or 10, 631 tokens of *yǐjing* are followed by negators *méi* and *bù*. This is similar to the percentage of *already* used in negative sentences by Malay and Tamil speakers (see Figure 5.4).

As shown in Figure 5.4, of the 194 tokens of *already* produced by the Chinese speakers, 25 tokens are used in a negative sentence. In other words, 12.9% of the tokens produced by the Chinese speakers are used in a negative sentence. Comparatively, Malay and Tamil speakers do not use *already* in a negative sentence as frequently as the Chinese speakers. For the Malay speakers and Tamil speakers, the use of *already* in a negative sentence only constitutes 3.3% and 4.3% of the total tokens of non-completive *already* respectively. Applying Pearson's 2x2 Chi-squared test without Yates' continuity correction to the data, results show that Chinese and Malay speakers are statistically different ($p = 0.01122$); Chinese and Tamil speakers are not statistically different ($p = 0.09233$), this is most likely due to a lack of tokens for Tamil speakers; and Malay and Tamil speakers are not statistically different ($p = 0.7752$).

The difference observed in Figure 5.4 between the Chinese, Malay and Tamil speakers can be accounted for by the presence or absence of parallel constructions

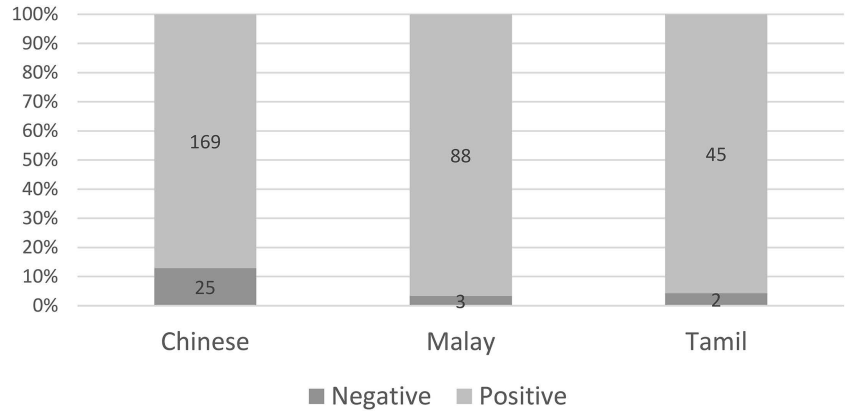

Figure 5.4 Proportions of *already* in negative versus positive sentences

between Colloquial Singapore English and the different ethnic languages. For Malay and Tamil speakers, since their equivalent of 'already' is more commonly used in positive sentences and less so in negative sentences, it is therefore used in a similar pattern in Colloquial Singapore English. For Chinese speakers, although *yǐjing* 'already' is also less often used in negative sentences, sentence-final *le* is fairly common with negative sentences because it marks a change of state, regardless of whether it is a transition from a positive to a negative phase or a transition from a negative to a positive phase.

(61a) 钥匙 找 到 了
yàoshi zhǎo dào **le**
key find arrive CRS
'I found the keys.'

(61b) 钥匙 找 不 到 了
yàoshi zhǎo bú dào **le**
key find NEG arrive CRS
'I could not find the keys.'

Examples (61a) and (61b) illustrate how sentence-final *le* can be used to indicate both a transition from a negative phase to a positive phase and a transition from a positive phase to a negative phase. In (61a), there is a transition from a negative phase of 'not able to find the keys' to a positive phase of 'found the keys'. On the contrary, Example (61b) indicates a transition from a positive phase of 'being able to find the keys' to a negative phase of 'not able to find the keys'.

To conclude, Chinese speakers are motivated by the parallel constructions of sentence-final *le* and Colloquial Singapore English *already* to use *already* in negative sentences. On the other hand, some Malay and Tamil speakers may have acquired the use of *already* in negative sentences but do not do so very often in speech as there is a lack of motivation from their respective ethnic languages. Additionally, there is also normative pressure from Standard English where the use of *already* in negative sentences is not standard usage, and *no longer*, *no more* or *not anymore* should be used instead depending on the situation. As a result, there is an overall decrease in the usage of colloquial *already* by all speakers. That is to say, all ethnic groups would have produced more tokens of colloquial *already* if there is no strong normative pressure to speak Standard English.

Use of got *in Colloquial Singapore English*

In the sociolinguistic data collected, the twelve Chinese speakers produced a total of 217 tokens of *got*, the eight Malay speakers produced 189 tokens of *got*, and the four Tamil speakers produced 61 tokens of *got* (see Figure 5.5).

Of the 217 tokens of *got* produced by the Chinese speakers, 156 tokens are used in a colloquial manner. In other words, 71.9% of the tokens produced by the Chinese speakers are used as a possessive, existential or realis modality marker. Comparatively, Malay and Tamil speakers do not use *got* colloquially as frequently as the Chinese speakers. For the Malay speakers and Tamil speakers, the use of *got* as a possessive, existential or realis modality marker constitutes 55.6% and 31.1% of the total tokens respectively. Applying Pearson's 2x2 Chi-squared test without Yates' continuity correction to the data, results show that Chinese and Malay speakers are statistically different ($p = 0.0006122$); Chinese and Tamil speakers are statistically different ($p = 5.839\ e^{-09}$); and Malay and Tamil speakers are also statistically different ($p = 0.000916$).

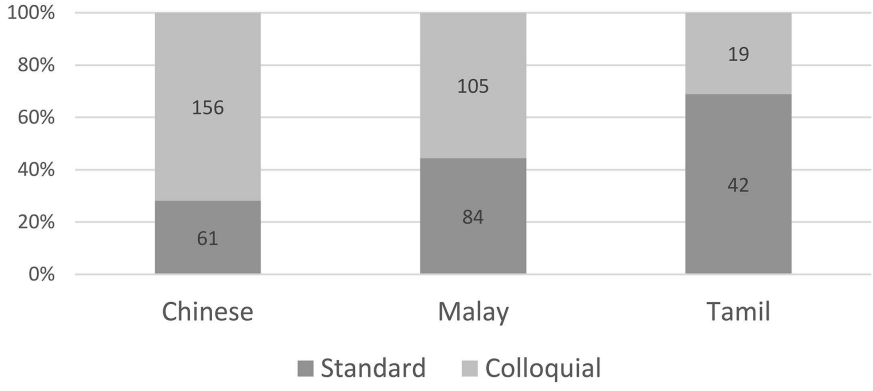

Figure 5.5 Proportions of standard versus colloquial use of *got*

As the differences shown in Figure 5.5 between the proportional frequencies of standard versus colloquial *got* by Chinese, Malay and Tamil speakers may be a result of individual differences in terms of English language proficiency and attitude toward Colloquial Singapore English, a Poisson regression with 'individual speaker' as a random effect was performed on the tokens of colloquial *got* produced by each speaker. Table 5.2 summarizes the coefficient estimates, estimate errors, and confidence intervals of the Poisson model with 'ethnicity' as the factor group and 'individual speaker' as the random effect.[3]

By dividing the estimates with the estimate errors in Table 5.2, we can obtain the z values for the factors of 'Malay' and 'Tamil'. This will help us determine if they are significantly different from the control factor of 'Chinese'. A z value that is less than -1.96 or greater than +1.96 will have a p value that is less than 0.05, which is significant at a 95% confidence level. For the use of colloquial *got* in the interview data, Malay (z = -0.304) and Tamil speakers (z = -0.904) do not significantly differ from Chinese speakers. Figure 5.6 shows the marginal effects of each factor at the 95% confidence level.

The results from the Poisson regression show that there is no statistically significant difference between the three ethnic groups on their use of the colloquial variant of *got*. Similar usage patterns for all three ethnic groups can be accounted for by the presence of parallel constructions in all three languages.

(62a) Cause the park **got** toilets and everything.

(Chinese Female, 22 years old)

(62b)

因为	公园	有	厕所
yīnwei	gōngyuán	**yǒu**	cèsuǒ
because	park	EXST	toilet

'Because there are toilets in the park.'

Examples (62a) and (62b) are a pair of parallel constructions between Colloquial Singapore English and Mandarin Chinese. In a context where the speaker wishes to inform an interlocutor that it is because of the existence of toilets in the park, both (62a) and (62b) are possible utterances, especially if the interlocutor is also a Chinese-English bilingual. As such, the suppressed *yǒu* construction, (62b), motivates the use of the *got* construction, (62a), as the final output. In other words, parallel constructions between two languages motivate the use of the *got* construction in a context where the *yǒu* construction can also be used. As a result of

Table 5.2 Poisson regression results for Colloquial Singapore English *got*

Factor group	*Factor*	*Estimate*	*Estimate error*	*l-95% CI*	*u-95% CI*
Ethnicity control: Chinese	Malay	−0.21	0.69	−1.65	1.08
	Tamil	−0.76	0.84	−2.37	0.91

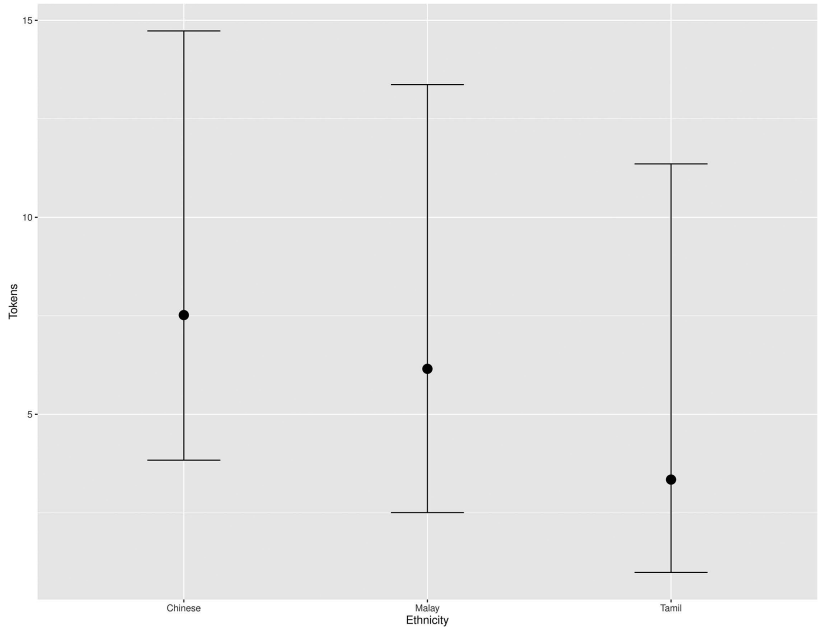

Figure 5.6 Marginal effects of each factor for Colloquial Singapore English *got*

this additional activation, the output selected is more likely to be (62a) and not the more standard *cause there are toilets in the park*.

Similarly for Malay and Tamil, parallel constructions between Colloquial Singapore English *got* and Malay *ada* or Tamil *iruk* motivate the use of *got* in possessive and existential sentences.

(63a) Last time in my ward only **got** three to four male staff nurses.
(Malay Male, 35 years old)

(63b)	Hospital	ini	**ada**	seratus	jururawat
	hospital	DET	EXST	one hundred	nurse

'This hospital has one hundred nurses.'

Example (63a) is an existential sentence taken from the interview data and Example (63b) is a similar existential sentence in Malay. These examples show how Malay *ada* is able to motivate the synchronic use of Colloquial Singapore English *got*.

(64a) I **got** two siblings.
(Tamil Male, 37 years old)

(64b) எனக்-கு இரண்டு தம்பிகள் இருக்-கிறார்-கள்
eṉak-ku iraṇṭu tampikaḷ **iruk**-kiṟār-kaḷ
1SG-DAT two brother be-PRS-PNG
'I have two brothers.'

Similarly for Tamil, Example (64a) is a possessive sentence taken from the interview data and Example (64b) is a similar possessive sentence in Tamil. These examples show how Tamil *iruk* can motivate the synchronic use of Colloquial Singapore English *got*. That crosslinguistic influence from Tamil *iruk* is possible demonstrates that semantic transfer is possible without syntactic congruity as the constructions are possibly connected at a semantic level (see Chapter 3 for more details).

If we break down the data in Figure 5.5 into the different semantic functions of realis modality, existence, and possession, we can see a clearer picture of influence from the different ethnic languages of Chinese, Malay, and Tamil (see Table 5.3).

As shown in Table 5.3, only Chinese speakers use *got* as a realis modality marker, both Malay and Tamil speakers do not use *got* in such a manner and there are zero tokens of *got* as realis modality marker for both Malay and Tamil speakers. Since there is no realis modality marker function in both the Malay and Tamil languages, there are no parallel constructions to motivate the use of *got* as a realis modality marker for Malay and Tamil speakers. This is further proof that the different ethnic groups are influenced by their respective ethnic languages. Among the three ethnic languages, only Chinese *yǒu* can be used as a realis modality marker (see discussion on parallels in the previous section). Since Malay and Tamil speakers do not have parallel constructions in their respective languages, they either did not acquire the function at all or are not motivated by their ethnic language to use it in speech. As such, *got* rarely appears as a realis modality marker in the sociolinguistic interviews that were conducted.

Additionally, the use of *got* as a realis modality marker is restricted to only two middle-aged Chinese speakers who do not have a high level of English proficiency. This is a result of interaction between crosslinguistic influence and language proficiency, and will be further discussed in the final section on interactions with

Table 5.3 Breakdown of the different functions of *got*

	Total	*Chinese*	*Malay*	*Tamil*
Realis modality	9	9	0	0
Existence	254	138	100	16
Possession	16	8	5	3
Standard English	187	62	84	42

individual-level social factors (see Chapter 3 for an overview of social and linguistic factors).

To conclude, what may seem like a transfer feature from Chinese actually has its own basis in all the three ethnic languages of Chinese, Malay, and Tamil. This is in contrast to the use of Colloquial Singapore English *one*, which does not have an equivalent or similar word in the Malay and Tamil languages.

Use of one *in Colloquial Singapore English*

In the sociolinguistic data collected, the twelve Chinese speakers produced a total of 574 tokens of *one*, the eight Malay speakers produced 300 tokens of *one*, and the four Tamil speakers produced 124 tokens of *one* (see Figure 5.7).

Of the 574 tokens of *one* produced by the Chinese speakers, 82 tokens are used in a colloquial manner. In other words, 14.3% of the tokens produced by the Chinese speakers are used as a nominalizer or contrastive focus marker. Comparatively, Malay and Tamil speakers seldom use *one* colloquially. For the Malay and Tamil speakers, the use of *one* as either a nominalizer or contrastive focus marker only constitutes 2.67% and 1.61% of the total tokens respectively. Applying Pearson's 2x2 Chi-squared test without Yates' continuity correction to the data, results show that Chinese and Malay speakers are statistically different ($p = 8.043\ e^{-08}$); Chinese and Tamil speakers are statistically different ($p = 8.383\ e^{-05}$); and Malay and Tamil speakers are not statistically different ($p = 0.5154$).

Similar to Colloquial Singapore English *got*, the differences shown in Figure 5.7 between the proportional frequencies of standard versus colloquial *one* by Chinese, Malay and Tamil speakers may be a result of individual differences. As such, a Poisson regression with 'individual speaker' as a random effect was performed on the tokens of colloquial *one* produced by all speakers. Table 5.4 summarizes the coefficient estimates, estimate errors, and confidence intervals of

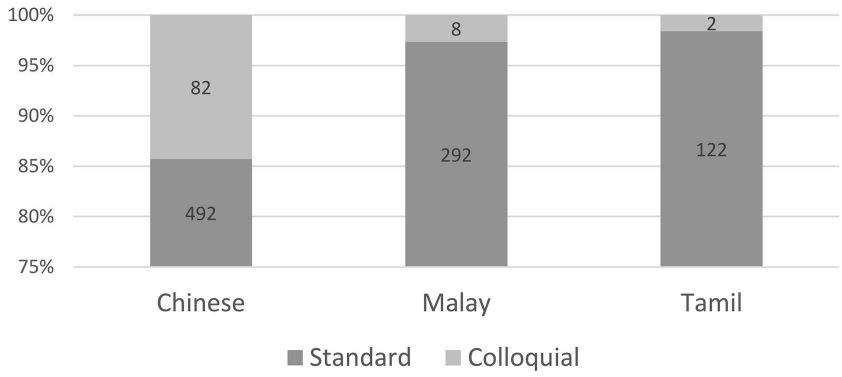

Figure 5.7 Proportions of standard versus colloquial use of *one*

the Poisson model with 'ethnicity' as the factor group and 'individual speaker' as the random effect.[4]

From the results shown in Table 5.4, the use of colloquial *one* in the interview data for Malay (z = -2.00) and Tamil speakers (z = -2.04) is significantly different from that of Chinese speakers. Figure 5.8 shows the marginal effects of each factor at the 95% confidence level.

The difference between the Chinese speakers and Malay and Tamil speakers can be accounted for by the presence or absence of parallel constructions between Colloquial Singapore English and the ethnic languages. Compared to Malay and Tamil speakers, the Chinese speakers use the colloquial variants of *one* much more frequently because of parallel constructions in Chinese that motivate their synchronic use in certain situations. For instance, in situations where

Table 5.4 Poisson regression results for Colloquial Singapore English *one*

Factor group	*Factor*	*Estimate*	*Estimate error*	*l-95% CI*	*u-95% CI*
Ethnicity	Malay	−1.90	0.95	−3.98	−0.08
control: Chinese	Tamil	−2.94	1.44	−6.09	−0.37

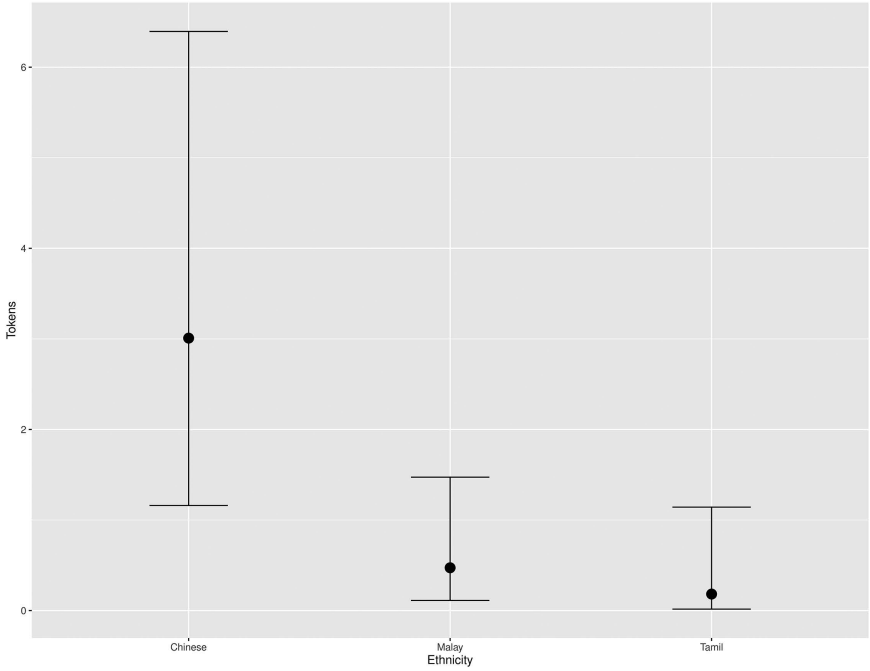

Figure 5.8 Marginal effects of each factor for Colloquial Singapore English *one*

a Chinese-English bilingual wishes to emphasize a particular proposition as true, contrastive focus marker *one* will very likely be used.

(65a) My memory really very bad **one**.

'My memory IS really very bad.'
(Chinese Female, 20 years old)

(65b)	我	的	记忆	真的	很	差	的
	wǒ	de	jìyì	zhēnde	hěn	chà	**de**
	1SG	NMM	memory	really	very	bad	CFM

'My memory IS really very bad.'

Examples (65a) and (65b) are a pair of parallel constructions between Colloquial Singapore English and Mandarin Chinese.[5] In a context where the speaker wishes to emphasize that her memory is very bad, both (65a) and (65b) are possible utterances, especially if the interlocutor is also a Chinese-English bilingual. As such, the suppressed *de* construction, (65b), motivates the use of the *one* construction, (65a), as the final output. In other words, parallel constructions between two languages motivate the use of the *one* construction in a linguistic context where the *de* construction can also be used.

Examples (66a) and (66b) are additional evidence that parallel constructions are the primary channel for crosslinguistic influence from Chinese. The Chinese structure in (66b) where the sentence ends with 的啦 *de la* is the parallel construction to (66a). Five out of the twelve Chinese interviewees had at least one token of Chinese-like *one lah* construction in their interview and none of the Malay and Tamil speakers had any tokens of the same construction.[6]

(66a) Because they are doing a lot of customer, Malays **one lah**.

'Because they have a lot of customers, Malay customers.'
(Chinese Male, 55 years old)

(66b)	因为	他们	有	很多	顾客，	马来	的	啦
	yīnwei	tāmen	yǒu	hěnduō	gùkè,	Mǎlái	**de**	**la**
	because	3PL	have	many	customer,	Malay	NMZ	DIS

'Because they have a lot of customers, Malay customers.'

As shown in Figure 5.7, not only do parallel constructions between languages motivate more frequent use of colloquial variants of *one*, the interview data also suggests that existence of parallel constructions between languages may help facilitate acquisition of a target construction.

To clarify, 'parallel constructions' in the context of language acquisition simply refers to the fact that there exist parallel constructions between two languages, and these constructions are not necessarily acquired and stored in the mind of a single individual. In the context of language acquisition, the individual of interest

is someone who had acquired some knowledge of his or her ethnic language and is in the process of acquiring Colloquial Singapore English. If parallel constructions exist between the English language input and the already acquired ethnic language, such parallel constructions will facilitate the acquisition of the target English construction. 'Acquisition' here means an individual who not only has a passive understanding of a particular construction but is also able to produce that construction in speech.

If we breakdown the use of the colloquial variant of *one* according to each individual interviewee, we see that only one of the four Tamil speakers uses colloquial *one*; only four of the eight Malay speakers use colloquial *one*; while eleven of the twelve Chinese speakers use colloquial *one*. Granted that not using colloquial *one* in a single sociolinguistic interview is not equivalent to an individual not acquiring its functions, it still points to the possibility that an individual might not have acquired it. Therefore, the fact that almost all Chinese participants use colloquial *one* in the sociolinguistic interview, and few Malay and Tamil participants do so, give us good reason to believe that parallel constructions also have a role to play in language acquisition. Since no parallel constructions exist in the Malay and Tamil languages, it is less likely that Malay or Tamil speakers will acquire such Chinese-influenced uses of *one* in the first place. Furthermore, the rate of using *one* as a nominalizer or contrastive focus marker is also comparatively lower than Chinese speakers even if they did acquire such functions, as there is a lack of crosslinguistic influence from their ethnic language to motivate its use. This is in contrast to Colloquial Singapore English *got*, where Malay and Tamil speakers use the colloquial variant of *got* as frequently as the Chinese speakers because of motivation from parallel constructions in their own respective ethnic languages.

Table 5.5 breaks down the two colloquial functions of Colloquial Singapore English *one* according to ethnic groups.

All in all, there are 92 tokens of colloquial uses of Colloquial Singapore English *one* in the sociolinguistic interviews collected. Of these 92 tokens, Chinese speakers constitute the majority with 82 tokens, followed by Malay speakers with 8 tokens and Tamil speakers with 2 tokens. For the Chinese speakers, they use nominalizer functions,[7] and contrastive focus functions of *one* almost equally. For non-Chinese speakers, we see that the contrastive focus function of *one* is used more frequently. This can be explained by a lexical gap (see Winford 2003; Matras 2009 among others) in the Standard English repertoire where a lexical equivalent to contrastive focus *one* is not readily

Table 5.5 Breakdown of the different colloquial functions of *one*

	Total	*Chinese*	*Malay*	*Tamil*
Nominalizer	42	40	1	1
Contrastive focus	50	42	7	1

available. As for the nominalizer function, there are many possible ways of expressing the same meaning in Standard English. For instance, instead of saying *sell ice-cream one*, someone can say *the one selling ice-cream*, *the store selling ice-cream*, and so on.

After examining the use of Colloquial Singapore English *already*, *got*, and *one* in the sociolinguistic interview data, it is clear that the ethnic languages have an influence on the synchronic use of Colloquial Singapore English through parallel constructions. For Colloquial Singapore English *already*, Chinese speakers use *already* in negative sentences more often than Malay and Tamil speakers because of crosslinguistic motivation from sentence-final *le*; for Colloquial Singapore English *got*, the colloquial functions of *got* are used equally frequently by all three ethnic groups. This is because of the presence of parallel constructions in all three ethnic languages; lastly, for Colloquial Singapore English *one*, the presence of parallel constructions between Chinese *de* and Colloquial Singapore English *one* not only made the colloquial functions of *one* more common in the speech of Chinese-English bilinguals, it also facilitated the acquisition of the functions. On the contrary, for Malay and Tamil speakers who do not have parallel constructions between their ethnic languages and Colloquial Singapore English *one*, they not only find it more difficult to acquire the colloquial functions of *one*, they also use it less frequently in speech.

Diachronically speaking, parallel constructions also play an important role in shaping the outcome of the contact language, and in this case, Colloquial Singapore English. As a result of parallel constructions between the ethnic languages and Colloquial Singapore English, innovations from the ethnic languages may be reinforced or certain linguistic structures from Standard English may become more prevalent in the contact language. For instance, the innovation of using *got* in possessive and existential sentences is reinforced by parallel constructions in all three ethnic languages. If no parallel constructions exist, as is the case for Malay, Tamil and Standard Mandarin Chinese with regard to the realis modality function of *got*, such an innovation will most probably not spread or be acquired by other speakers unless it serves to fill a lexical gap like contrastive focus *one*. Regarding increased usage of certain linguistic structures, an example is the use of *already* in sentence-final position. Although it is not an innovation, the use of *already* in sentence-final position becomes more prevalent due to influence from Chinese sentence-final *le*. In short, parallel constructions are a key channel for the ethnic language to exert an influence on contact language, and it can have two effects: 1) it can reinforce innovations from the dominant or ethnic language; 2) it can increase the frequency of certain linguistic structures.

Interaction with individual-level social factors

An analysis of the interview data shows that crosslinguistic influence motivated by parallel constructions between the ethnic languages and Colloquial Singapore English may be strengthened or weakened by individual-level social factors that are determined partially or wholly by one's social circumstances. In this section

we will look at a specific case study of realis modality *got* and a more general interaction between the factors of language dominance and attitude toward English across all three linguistic items.

Crosslinguistic influence and English language proficiency

As shown in Table 5.3, there are a total of nine tokens of realis modality *got*, and they are all produced by two middle-aged Chinese speakers who have a lower English proficiency than the other speakers. These two speakers have a lower level of English proficiency because they had not studied English in school but acquired it later in their working life. This finding suggests that what constitutes as parallel constructions for an individual may differ depending on one's knowledge or proficiency in the language one is acquiring and the age that an individual learned the language.

Since tense is optional in Colloquial Singapore English, Example (67) is a possible sentence that may be part of the language input of a Singaporean.

(67) She **got** scold (by teacher).

With input similar to that of (67), the generalization that *got* takes a VP complement can be made, and this is what speakers with a beginner level English proficiency would assume. Coupled with the fact that Standard English *got* has the implied notion of possession (see Example 14), Chinese speakers with a beginner level of English proficiency will view Chinese *yǒu* as completely identical to English *got*, and will very likely expand its semantic functions to include the full range of semantic functions of *yǒu* – possessive, existential, and realis modality marker.

However, a speaker who has more knowledge of English or is more proficient in English will know that '*got* + VP' is in fact only restricted to passive sentences. Moreover, he or she would also know other equivalent ways of conveying the meanings that are expressed by Mandarin '*yǒu* + VP'. For example, one meaning that Mandarin '*you* + VP' and Colloquial Singapore English *got* is compatible with is the completive aspect as illustrated by Example (68a).

(68a) She **got** brush her teeth.
(68b) She **did** brush her teeth.

To indicate that it is a fact that someone has completed a particular action, an individual with an intermediate level of English proficiency will probably know that the equivalent of (68a) in Standard English is (68b), where a past tense *did* would be sufficient to indicate that the referent of *she* has in fact completed the action of brushing her teeth prior to speech time. As such, someone with an intermediate level of English proficiency would use (68b) rather than (68a), especially with normative social pressure to speak Standard English in Singapore. In short, what constitutes as parallel constructions between an individual's

ethnic language and Colloquial Singapore English may be different depending on the individual's English language proficiency. In the case of Colloquial English *got*, a Chinese-English bilingual with a beginner level of English proficiency will most likely view Chinese *yǒu* as exactly parallel to Colloquial Singapore English *got*. However, a Chinese-English bilingual with an intermediate or higher level of English proficiency will probably not associate the realis modality function of Chinese *yǒu* with Colloquial Singapore English *got*. This suggests that the associational semantic networks of a bilingual (see Figure 3.7) may be reorganized as an individual improves in his or her proficiency level of the target language.

Interaction between an individual's dominant language and attitude toward English

In this sub-section, we will focus on the usage frequencies of sentence-final *already*, the colloquial variants of *got*, and the colloquial variants of *one* by balanced bilinguals.[8] Balanced bilinguals are speakers who are equally proficient in their ethnic language and in English, and the sociolinguistic interview data collected will demonstrate the way in which their attitudes toward English either strengthen or weaken the usage pattern motivated by crosslinguistic influence from their ethnic language. In the following interaction plots, 'ethnicity' has been included in the Poisson model so that the differences observed between different factor groups are above and beyond what can be explained by the factor of 'ethnicity', which has been shown to be an important predictor of past tense marking in weak verbs in Chapter 4.[9]

In the previous section, we have seen how Chinese sentence-final *le* motivates the use of *already* in sentence-final position for Chinese-English bilinguals. Figure 5.9 shows that balanced bilingual speakers with a favorable attitude toward English, which includes Colloquial Singapore English, have a greater tendency of placing *already* in sentence-final position, compared to their counterparts who have a neutral attitude toward English. This is a statistically significant difference as the 95% confidence intervals of the two groups do not overlap.

Similarly for Colloquial Singapore English *got*, we have seen how the use of colloquial *got* is motivated by all three ethnic languages in the previous section. Figure 5.10 shows that balanced bilingual speakers with a favorable attitude toward English, have a greater tendency of using the colloquial variants of *got*, compared to their counterparts who have a neutral attitude toward English. This is a statistically significant difference as the 95% confidence intervals of the two groups do not overlap.

As for Colloquial Singapore English *one*, we have seen how the use of colloquial *one* is motivated by Chinese *de* in the previous section. Figure 5.11 shows that balanced bilingual speakers with a favorable attitude toward English, have a greater tendency of using the colloquial variants of *one*, compared to their counterparts who have a neutral attitude toward English. This is a statistically significant difference as the 95% confidence intervals of the two groups do not overlap.

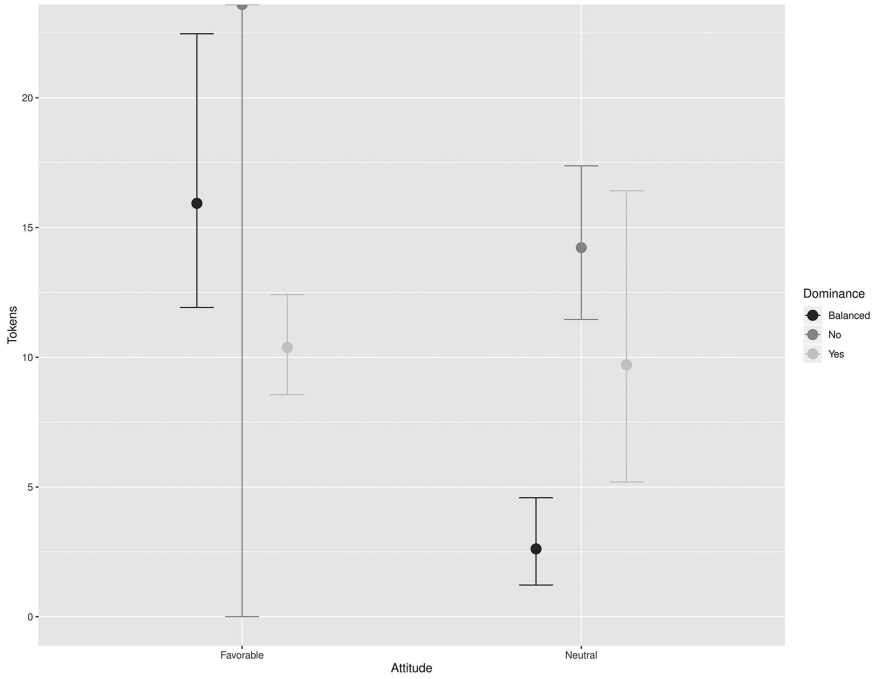

Figure 5.9 Interaction between English dominance and attitude toward English for sentence-final *already*

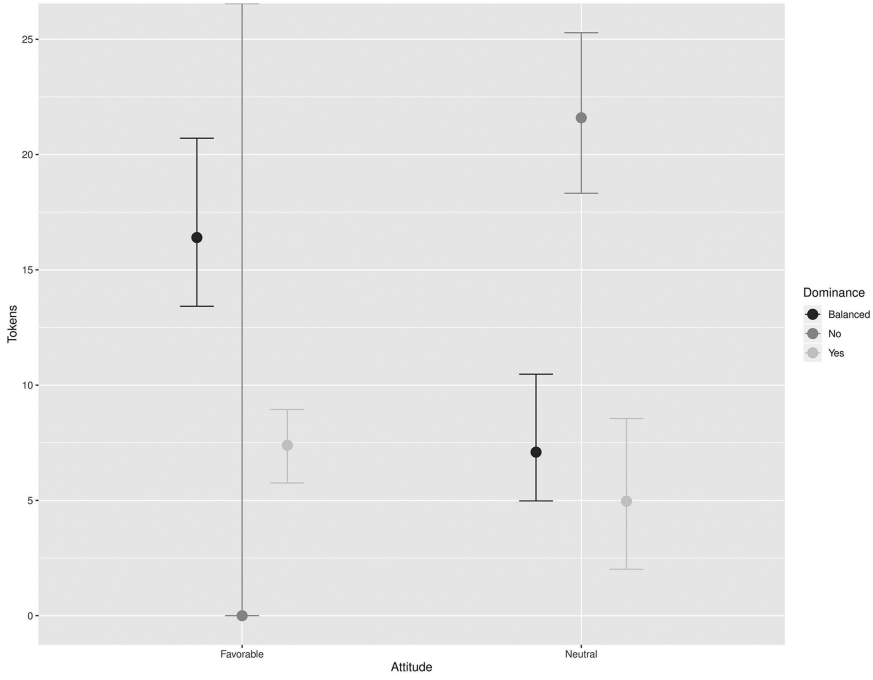

Figure 5.10 Interaction between English dominance and attitude toward English for the colloquial variants of *got*

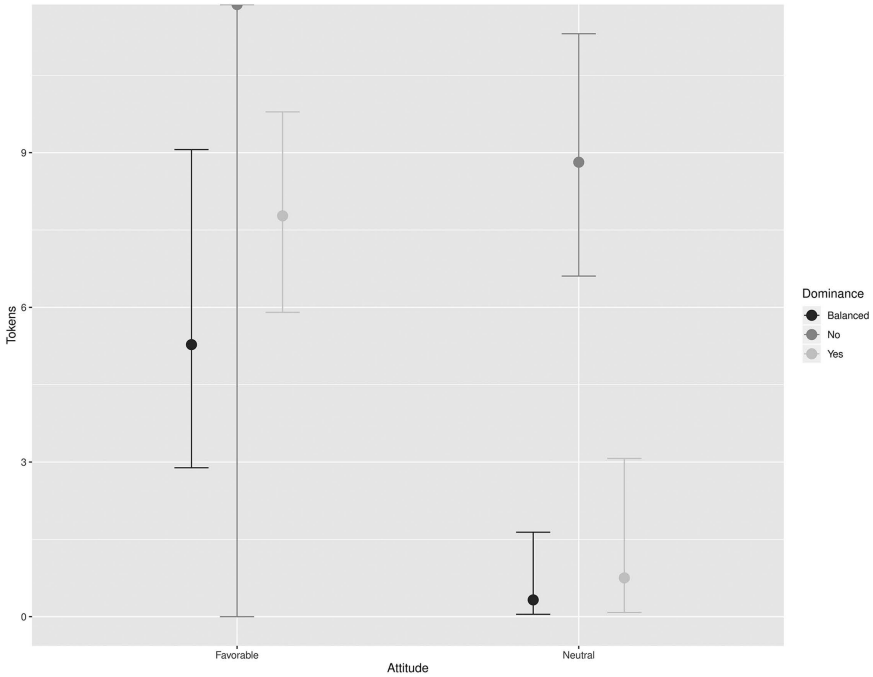

Figure 5.11 Interaction between English dominance and attitude toward English for the colloquial variants of *one*

From Figures 5.9 to 5.11, we can see that for all three linguistic items, a favorable attitude toward English, which includes Colloquial Singapore English, motivates a greater use of the colloquial variant.[10] According to Kormos (2000), less advanced speakers focus their attention primarily on the information content of their speech while more advanced speakers are able to place more attention on monitoring the linguistic form of their output. As balanced bilinguals are equally proficient in the ethnic language and the English language, they are able to place a greater amount of attention to the English forms that they produce, and are thus better able to control whether a standard variant or a colloquial variant is produced in their output. In other words, if a balanced bilingual has a favorable attitude toward Colloquial Singapore English, he or she would use the colloquial variant more often, and this strengthens the crosslinguistic tendency to use colloquial variants brought about by their ethnic language. On the other hand, if a balanced bilingual has a neutral or unfavorable attitude toward Colloquial Singapore English, he or she would tend to use the colloquial variant less often, and this will weaken the crosslinguistic tendency of using colloquial variants. This is in contrast to the non-English dominant speaker, who will use colloquial variants frequently regardless of his or her attitude towards Colloquial Singapore English (see Figure 5.12).

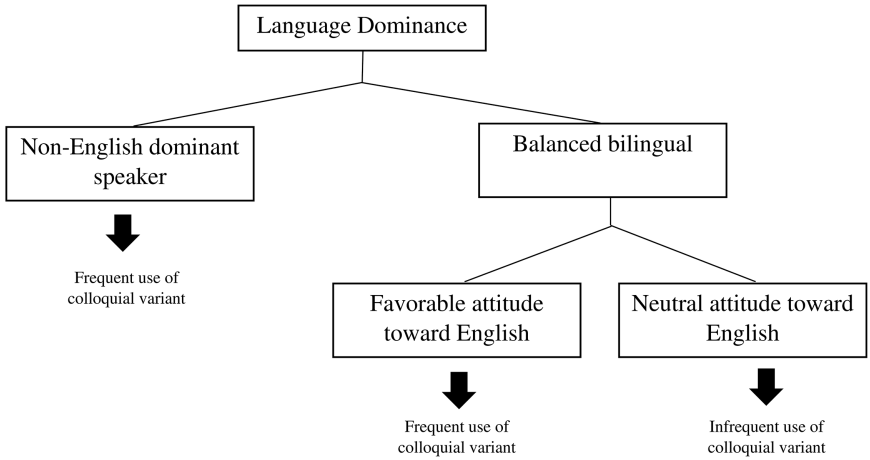

Figure 5.12 Relationship between language dominance and attitude toward English

In conclusion, the interaction between crosslinguistic influence and individual-level social factors as described in this section suggests that a bilingual's languages provide a potential for crosslinguistic influence through the presence of parallel constructions between the ethnic language and Colloquial Singapore English. However, this potential may or may not be realized depending on social factors like one's language proficiency and attitude towards Colloquial Singapore English.

Notes

1 Although there are two types of *le*, sentence-final *le* is the one that influenced CSE *already*. See Teo (2019) for detailed discussion.
2 See Teo (2014) for a discussion of why the nominal modification function of *de* did not transfer from Chinese to Colloquial Singapore English.
3 The R code for this Poisson model is "M1 <- brm(Tokens ~ Ethnicity + (1|Speaker), data = MyData, family = 'Poisson')".
4 The R code for this Poisson model is "M1 <- brm(Tokens ~ Ethnicity + (1|Speaker), data = MyData, family = 'Poisson')".
5 There are no differences with regard to the nominalizer and contrastive focus functions of *de* among different varieties of Chinese even though they may be phonologically different.
6 There is a single token of Standard English *one* at the end of a sentence followed by discourse particle *lah*.
7 As the aim here is to discern crosslinguistic influences from the different languages, the number of tokens here do not include *one* in the combination of 'adjective + *one*' as this is no different from Standard English *one*.
8 Balanced bilinguals are selected for further discussion and not English dominant speakers because balanced bilinguals behave consistently with respect to all three linguistic features of *already*, *got*, and *one*.

9 The R code for this Poisson model is "M1 <- brm(Tokens ~ Ethnicity + Attitude*Dominance, data = MyData, family = 'Poisson')". A statistical model that includes all possible social and linguistic factors is not possible due to insufficient observations.
10 The pattern will be clearer if the language attitude survey had further distinguished between Colloquial Singapore English and Standard English.

References

Bao, Zhiming. 2005. The aspectual system of Singapore English and the systemic substratist explanation. *Journal of Linguistics* 41(2). 237–267.
Bao, Zhiming. 2009. 'One' in Singapore English. *Studies in Language* 33(2). 338–365.
Bao, Zhiming. 2011. Convergence-to-substratum and the passives in Singapore English. In Claire Lefebvre (ed.), *Creoles, their substrates, and language typology*, 253–270. Amsterdam: John Benjamins.
Bao, Zhiming. 2015. *The making of vernacular Singapore English: System, transfer and filter*. Cambridge: Cambridge University Press.
Brown, Adam. 1999. *Singapore English in a nutshell: An alphabetical description of its features*. Singapore: Federal Publications.
Center for Chinese Linguistics PKU Mandarin Corpus. http://ccl.pku.edu.cn/ccl_corpus/xiandaihanyu/ (February 5, 2019).
Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.
Grangé, Philippe. 2010. Aspect and modality in Indonesian: The case of sudah, telah, pernah, sempat. *Wacana* 12(2). 143–168.
Gupta, Anthea Fraser. 1992. Contact features of Singapore colloquial English. In Kingsley Bolton and Helen Kwok (eds.), *Sociolinguistics today: International perspectives*, 323–345. London: Routledge.
Han, Chengzhong. 2017. *The emergence of the 'yǒu' construction in Mandarin Chinese: The perspective of contact-induced grammaticalization*. Singapore: National University of Singapore dissertation.
Hopper, Paul J., and Elizabeth Closs Traugott. 2003. *Grammaticalization*. 2nd ed. Cambridge: Cambridge University Press.
Jose, Alice K. 2007. *Concise English – English Tamil dictionary*. Chennai: First Edition.
Koh, Ann Sweesun. 1990. *Topics in colloquial Malay*. Melbourne: The University of Melbourne dissertation.
Kormos, Judit. 2000. The role of attention in monitoring second language speech production. *Language Learning* 50(2). 343–384.
Kwan-Terry, Anna. 1989. The specification of stage by a child learning English and Cantonese simultaneously: A study of acquisition processes. In Hans-Wilhelm Dechert and Manfred Raupach (eds.), *Interlingual processes*, 33–48. Tubingen: Narr.
Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese: A functional reference grammar*. Berkeley: University of California Press.
Löbner, Sebastian. 1989. German schon – erst – noch: An integrated analysis. *Linguistics and Philosophy* 12. 167–212.
Matras, Yaron. 2009. *Language contact*. Cambridge: Cambridge University Press.
Nomoto, Hiroki, and Nala Huiying Lee. 2008. Modality in disguise: A case study of colloquial Singapore English 'got'. www.tufs.ac.jp/ts/personal/nomoto/chronos8_handout.pdf (8 February 2019).

Olsson, Bruno. 2013. *Iamitives: Perfects in Southeast Asia and beyond*. Stockholm: Stockholm University M.A. thesis.

Soh, Hooi Ling. 2009. Speaker presupposition and mandarin Chinese sentence final – 'le': A unified analysis of the 'change of state' and the 'contrary to expectation' reading. *Natural Language and Linguistic Theory* 27(3). 623–657.

Sybesma, Rint. 1999. *The Mandarin VP*. Dordrecht: Kluwer Academic Publishers.

Teo, Ming Chew. 2014. Transferability of semantic functions in contact-induced grammaticalization: The case of Singapore colloquial English 'one'. *Studies in Language* 38(4). 836–863.

Teo, Ming Chew. 2019. The role of parallel constructions in imposition: A synchronic study of 'already' in colloquial Singapore English. *Journal of Pidgin and Creole Languages* 34(2). 347–377.

Wasserscheidt, Philipp. 2015. Constructions do not cross languages: On cross-linguistic generalizations of constructions. *Constructions and Frames* 6(2). 305–337.

Winford, Donald. 2003. *An introduction to contact linguistics*. Oxford: Blackwell.

6 At the end of the clause – Discourse particles *lah*, *leh*, *lor*

One of the more prominent linguistic features in Colloquial Singapore English is the use of clause or utterance-final discourse particles that indicate a wide range of attitudes and pragmatic meanings. For example, the ubiquitous *lah* that can be used in practically any sentence has been described as having a plethora of pragmatic meanings including solidarity, emphasis, obviousness, persuasion, friendliness, and even hostility (Ler 2006).

(1) Let's go watch a movie **lah**.
(2) Shut up **lah**!

Examples (1) and (2) show how *lah* is used to express completely different pragmatic meanings. Coupled with an appropriate linguistic context, discourse particle *lah* can be used in the act of persuading someone to go watch a movie together, as in Example (1); it can also be used to indicate hostility in the act of ordering someone to stop talking or nagging, as in Example (2). As these two examples show, *lah* can be used in two seemingly contradicting situations – one which decreases the social distance between people and another which increases the social distance between people.

There are around ten commonly used clause-final discourse particles in Colloquial Singapore English, and they form an open class of lexical items (Leimgruber 2016). They are considered an open class because new discourse particles have entered the language over time and each time that happened there were significant changes to the language ecology of Singapore. According to Lim (2007), the earliest group of discourse particles include *lah*, *ah*, and *what*, and these particles have been documented since the early 1970s. This group of particles are likely to be from Southern Min, a Chinese dialect, and/or Bazaar Malay, a contact variety of Malay (Lim 2007). They were incorporated into Colloquial Singapore English at a time when Southern Min was the intra-ethnic form of communication for the Chinese and Bazaar Malay was the inter-ethnic form of communication for all ethnic groups. The second group of particles includes *lor*, *leh*, *hor*, *meh*, and *mah*, and they have been described in the literature on Singapore English since the late 1980s (Lim 2007). These particles form a subset of the numerous discourse

particles found in Cantonese, a Chinese dialect, and they were incorporated into Colloquial Singapore English at a time when Cantonese pop culture was at its height of influence around the 1980s. Lastly, the third group of particles consists of particles like *bah* which originated from Chinese Mandarin (Leimgruber 2016). This group of particles were probably incorporated into Colloquial Singapore English at a time when Mandarin was increasingly becoming the most common form of intra-ethnic communication for the Chinese people in the 1990s.

In this chapter, we will examine the use of three common discourse particles – *lah*, *leh*, and *lor*, in the interview data. There are two reasons to select the discourse particles of *lah*, *leh*, and *lor*. First, the high frequency of these particles is sufficient to facilitate statistical analyses of their use. Second, the particle *lah* has a possible Malay origin while the other two discourse particles, *leh* and *lor*, are of Chinese origin. This allows crosslinguistic comparisons between *lah* and the other two discourse particles, and enable us to discern possible crosslinguistic influences from the ethnic languages.

In what follows, the functions of *lah*, *leh*, and *lor* will be described in greater detail, and when applicable, the way in which they are used in the different ethnic languages will also be described. This will be followed by a quantitative analysis of the use of these discourse particles in the sociolinguistic interview data, and a discussion about the role parallel constructions play in the acquisition and use of these clause-final particles. Finally, the process by which individuals create their own unique speaker style through the creative use of discourse particles to achieve novel pragmatic purposes will be described.

Colloquial Singapore English *lah*, *leh*, and *lor*

Previous studies like Gupta (1992, 2006), Wong (1994, 2004), Ler (2006), and Lim (2007) adopt a systemic approach to modelling *lah*, *leh*, *lor*, and other discourse particles. The most relevant framework to our discussion on speaker style is Gupta's (1992) 'scale of assertiveness'. In her scale of assertiveness, discourse particles are arranged along a continuum of maximally assertive to minimally assertive particles. The particles fall into three distinct groups: 1) 'contradictory' particles like *mah* and *what*, which are maximally assertive; 2) 'assertive' particles like *leh*, *lah*, and *lor*, which are assertive; 3) and 'tentative' particles like *hor* and *har*, which are minimally assertive. Assertiveness or how certain a speaker is about his or her assertions is an epistemic stance and it is closely linked to how an individual creates his or her personal style (Kiesling 2009). For instance, someone who is constantly assertive or certain of what he or she says may be trying to project a confident or authoritative style. As will be shown later the type and frequency of discourse particles used by the twenty-four interviewees vary considerably and the differential use of discourse particles enable individuals to project their own personal style. In the rest of this section the functions of discourse particles *lah*, *leh*, and *lor* will be described in greater detail.

Discourse particle **lah**

As mentioned earlier, *lah* has a wide array of functions ranging from solidarity to hostility and a two part function of *lah* proposed by Wee (2004) can help us understand the diverse range of pragmatic functions that *lah* possesses. The first part of the function of *lah* is to draw the hearer's attention to a particular mood or attitude that the speaker possesses, and the second part of the function of *lah* is to appeal to the hearer to accommodate to the speaker's current mood or attitude (Wee 2004). Examples (3) and (4) illustrate the way in which *lah* can be analyzed as serving two functions.

(3) A: For me, if your money spend. But okay **lah**, save a bit for the future **lah**, but don't like overly save, like, you know?

'For me, if you have money spend it. But okay, I will save a bit for the future, but not save excessively, you know?'

B: Yeah, I mean you can't bring it when you die.

'Yeah, I mean you can't bring it with you when you die.'
(A = Malay Male, 28 years old; B = Chinese Male, 31 years old)

In Example (3), we see that speaker A uses *lah* to signal his attitude or perspective that it is alright for someone to spend his or her money as long as he or she saves some of it for the future. By using *lah* here, he also hopes that the hearer will accommodate or agree with his perspective. Additionally, he ends his turn with *you know* to make sure that the hearer has understood his perspective. To agree with speaker A's perspective speaker B says *yeah* and continues to say that money is something that is ephemeral and will not matter once a person passes away. This further confirms the fact that speaker B has understood speaker A's perspective and fully supports his way of thinking.

(4) A: In JC (junior college) you can still can put everything aside until the exams which I did **lah**.

B: I did that (too).

(A = Chinese Male, 24 years old; B = Chinese Male, 31 years old)

Similar to Example (3), speaker A in Example (4) uses *lah* to signal his attitude or perspective that it is alright for someone to procrastinate up till the exams. The use of *lah* here suggests that he hopes the hearer will accommodate or agree with his perspective. To agree with speaker A's perspective, speaker B says that he did the same thing too. This signals to speaker A that speaker B has understood his perspective and fully agrees with his way of thinking.

Discourse particle **leh**

According to Wee (2004), discourse particle *leh* functions as a pragmatic softener by marking an assertion or request as tentative. Examples (5) and (6)

exemplify the way in which discourse particle *leh* can function as a pragmatic softener.

(5) A: So you've taken photos of historical building or?
B: Historical building ah? No **leh**.

(A = Chinese Male, 31 years old; B = Chinese Male, 28 years old)

In Example (5), speaker A asks speaker B, a freelance photographer, if he has taken photos of historical buildings in Singapore. Speaker B replies that he has not taken photos by saying *no*. However, a straight out *no* may seem impolite, hence speaker B uses a pragmatic softener like *leh* to soften the tone.

(6) A: Which cities have you been to?
B: Have I been? I went to a lot **leh**.

(A = Chinese Male, 31 years old; B = Chinese Female, 22 years old)

In Example (6), speaker A asks speaker B which cities in the US she has been to. Speaker B replies that she has been to many cities in the US. However, to not sound like she is bragging, speaker B uses discourse particle *leh* to make it sound less assertive.

Discourse particle **lor**

The main function of discourse particle *lor* is described by Wee (2004) as indicating that an utterance is a direct observation or an obvious inference. Examples (7) and (8) show the way in which discourse particle *lor* can express a sense of obviousness.

(7) Then, yeah. Newspapers. Job ad. So I call **lor**, they ask me to go for interview.

'Then, yeah. I looked at newspapers, job advertisements in newspapers. So I called them and they asked me to go over for an interview.'
(Chinese Female, 56 years old)

In Example (7), the speaker is answering the question of how she managed to get a position at her current workplace. Since calling the contact number shown in job advertisements is part of the world knowledge of most people, the speaker marks *so I call (them)* with *lor* as it is easily inferable from someone's prior knowledge about how a typical job search works.

(8) She has motivation to understand what's the lyrics about so she sings **lor**.

'She has the motivation to understand what the lyrics are saying so she likes to sing (Korean) songs.'
(Chinese Female, 22 years old)

In Example (8) the speaker is talking about a friend who likes to sing Korean songs. She tells the interviewer that her friend is motivated to learn what the song lyrics mean and proceeds to say that she likes to sing Korean songs. Since song lyrics are meant to be sung, it is easily inferable from the previous information that she provided that her friend would also like to sing Korean songs. As such, the speaker marks *so she sings* with *lor* to express a sense of obviousness.

Additionally, an analysis of the sociolinguistic interview data shows that *lor* can co-occur with English *yeah* to form *yah lor*. Unlike *lor* when it appears alone, *yah lor* has its own discourse functions that are similar to how Chinese learners use *yah* when they speak in English (Bu 2013). The discourse functions of *yah lor* can be categorized into two types: 1) expressing agreement; and 2) discourse structuring.

Expressing agreement

Like *yeah* in Standard English, discourse particle *yah lor* can be used to indicate agreement with something that an interlocutor had mentioned previously.

(9) A: They always cheer until sore throat, then no more voice.

'They always cheer until their throats are sore and they lose their voice'

B: **Yah lor**. That's why.

(A = Chinese Male, 31 years old; B = Chinese Female, 18 years old)

In Example (9), speakers A and B are talking about why excessive cheering is meaningless. Speaker B uses *yah lor* to indicate that she agrees with speaker A's statement about overzealous students cheering until their throats are sore, so much so that they lose their voice.

Discourse structuring

Similar to the way in which Chinese learners use *yah* when speaking English, Colloquial Singapore English *yah lor* can also "mark transitions, to confirm, to elaborate or to comment on preceding utterances" (Bu 2013: 45–46). Example (10) shows how *yah lor* can be used to elaborate further on a previous point, and Example (11) demonstrates how *yah lor* can mark the end of a speaker's turn or the transition from one speaker to another.

(10) Then like now, yah lah, but all of them change already lah. **Yah lor**. Some of them become er . . . become normal working adult.

'Now, all of them have already changed. Some of them have become regular working adults.'
(Chinese Male, 28 years old)

In Example (10), the speaker talks about the way in which his friends have changed now and uses *yah lor* to indicate that he is going to elaborate more; after which he gives an example of how his friends have changed, i.e. they have become regular working adults.

(11) A: So did you do well in the end?
B: Quite well, I think. **Yah lor**.
A: Then which secondary school did you go to?
(A = Chinese Male, 31 years old; B = Chinese Female, 18 years old)

In Example (11), speaker A asks how well speaker B did in her exams and speaker B says she did quite well and uses *yah lor* at the end of her answer to indicate that it is the end of her conversational turn, and she has nothing further to add. Understanding that speaker B's turn had ended, speaker A subsequently follows up with a new question.

Parallels in Chinese and Malay

Of the three main ethnic languages of Chinese, Malay, and Tamil, only the Tamil language has no clause-final discourse particles.[1] Not only do both Chinese and Malay have clause-final discourse particles, most of the clause-final discourse particles in Chinese like *lah*, *leh*, and *lor*, and some clause-final discourse particles in Malay like *ah* and *lah*, are also shared with Colloquial Singapore English.

Clause-final particles lah, leh, *and* lor *in Chinese*

All three discourse particles – *lah*, *leh*, and *lor*, examined in this chapter appear in most if not all the colloquial varieties of Chinese spoken in Singapore. According to Lin and Khoo (2018), clause-final particles in Colloquial Singapore Mandarin include *lah*, *leh*, and *lor*. These three clause-final particles are used in the same way in Colloquial Singapore Mandarin as they are used in Colloquial Singapore English.

(12)

他	打	你，	你	打	回	他	啦
tā	dǎ	nǐ	nǐ	Dǎ	huií	tā	**la**
3SG	hit	2SG	2SG	hit	return	3SG	DIS

'He hit you, you hit him back!'
(Lin 2015: 38)

Example (12) illustrates how *lah* is used in Colloquial Singapore Mandarin. Similar to *lah* in Colloquial Singapore English, *lah* in Colloquial Singapore Mandarin also has a two part function. In this example, the speaker uses *lah* to signal his attitude or perspective that it is alright for the hearer to hit someone that has hit him or her. By using *lah* here, the speaker also hopes that the hearer will accommodate or agree with his perspective.

(13) 哇， 你 人 很 好 咧
wā ni rén hěn hǎo **lie**
EX 2SG person very good DIS
'Wow, you are indeed a good person.'
(Lee 2015: 185)

Example (13) illustrates how *lie* or *leh* is used in Colloquial Singapore Mandarin. Similar to *leh* in Colloquial Singapore English, *leh* in Colloquial Singapore Mandarin also functions as a pragmatic softener that makes the sentence less assertive. In this example, *leh* is used so that the speaker's praise that the hearer is a good person does not sound like flattery.

(14) 其实 很 容易 做 的， 改次 教 你 咯
qíshí hěn róngyì zuò de gǎicì jiāo nǐ **lo**
actually very easy make CFM next time teach 2SG DIS
'It's actually very easy to make, I will teach you next time.'
(Lee 2015: 194)

Example (14) illustrates how *lo* or *lor* is used in Colloquial Singapore Mandarin. Similar to *lor* in Colloquial Singapore English, *lor* in Colloquial Singapore Mandarin also functions to mark direct observations or obvious inferences. In this example, since the thing in question is not difficult to make, it is easily inferable that the speaker will not find it too difficult to teach the hearer what he or she wants to learn and will find time to do so.

Clause-final particle **lah** *in Malay*

Of the three discourse particles of *lah*, *leh*, and *lor*, only *lah* is attested in colloquial Malay. Goddard (1994) describes the use of *lah* in Colloquial Malay in Malaysia. The use of *lah* in Colloquial Malay in Singapore is confirmed by my informants.

(15) Masuk **lah**! Aku hantar engkau
enter DIS 1SG send 2SG
'Well, get in! I'll give you a lift!'
(Goddard 1994: 156)

Example (15) illustrates how *lah* is used in Colloquial Malay. Similar to *lah* in Colloquial Singapore English, *lah* in Colloquial Malay also has a two part function. In this example, the speaker uses *lah* to signal his attitude that he hopes that the hearer will accept his offer for a lift. By using *lah* here, the speaker also hopes that the hearer will accommodate to his attitude by accepting his offer.

Data analysis

In this section of data analysis, the general usage patterns of the twenty-four interviewees will be analyzed in terms of their use of clause-final particles. Interaction plots from Poisson regressions indicate that 'ethnicity' and 'age' have a strong influence on the use of clause-final particles in Colloquial Singapore English. Closer inspection of individual tokens reveals two main trends in the use of clause-final particles. First, Chinese speakers are using a wider range of clause-final particles compared to Malay and Tamil speakers. This is in line with Smakman and Wagenarr's (2013) study where they found a similar pattern of Chinese speakers using a wider range of clause-final particles. Second, younger speakers not only use a wider range of clause-final particles compared to middle-aged speakers, they also use the particles more frequently than middle-aged speakers. At the end of this section, the speech of particular individuals will be qualitatively analyzed to illustrate the way in which different personal styles can be created through the differential use of clause-final particles.

Interaction plots between age and ethnicity

Applying Poisson regressions to the data on clause-final particles, Figures 6.1 to 6.3 show the interaction plots with the factors of 'age' and 'ethnicity' for *lah*, *leh*, and *lor*. Since English dominance is an important predictor of colloquial variants

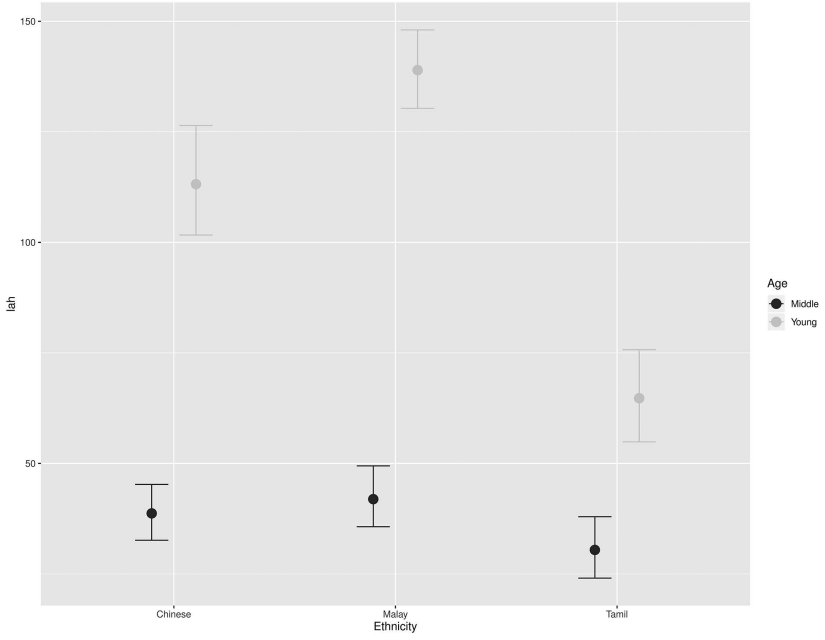

Figure 6.1 Interaction between age and ethnicity for discourse particle *lah*

in Chapter 5, 'English dominance' was included in the Poisson model so that the differences observed between different factor groups are above and beyond what can be explained by the factor of English dominance.[2]

As shown in Figure 6.1, since the 95% confidence intervals for middle-aged adults and young adults do not overlap, it is clear that young adult speakers use clause-final *lah* more frequently than middle-aged speakers. The interaction plot also suggests possible differences between ethnic groups amongst young adult speakers. It is likely that Malay speakers use clause-final *lah* the most frequently, followed by Chinese speakers and then Tamil speakers.

From Figure 6.2, we can see that young adult speakers use clause-final *leh* more frequently than middle-aged speakers. The interaction plot also suggests possible differences between ethnic groups amongst young adult speakers. It is likely that Chinese speakers use clause-final *leh* the most, followed by Malay speakers and Tamil speakers.

From Figure 6.3, it is clear that young adult speakers use clause-final *lor* more frequently than middle-aged speakers. The interaction plot also suggests possible differences between ethnic groups. As the 95% confidence intervals do not overlap, it is highly likely that young adult Chinese speakers use clause-final *lor* the most, followed by middle-aged Chinese speakers and then other ethnic groups.

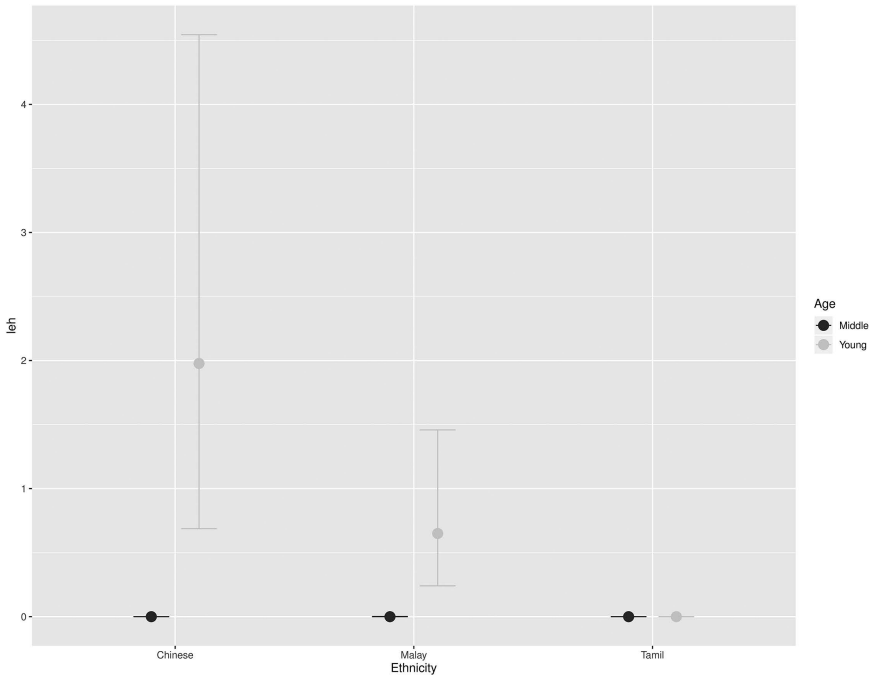

Figure 6.2 Interaction between age and ethnicity for discourse particle *leh*

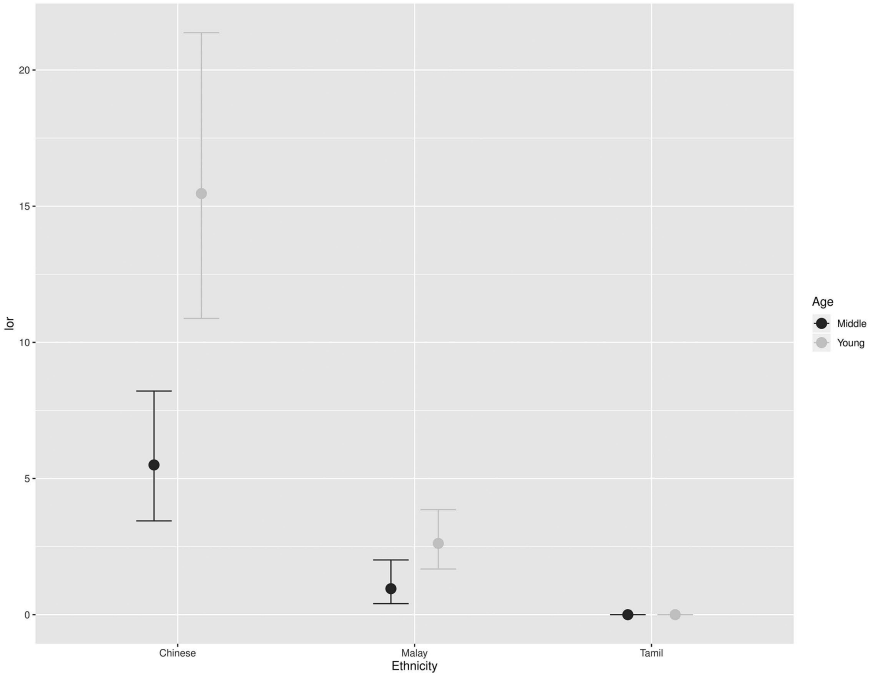

Figure 6.3 Interaction between age and ethnicity for discourse particle *lor*

The interaction plots from Figures 6.1 to 6.3 indicate that both 'ethnicity' and 'age' are important factors that influence an individual's frequency of clause-final particles *lah*, *leh*, and *lor*. In what follows, we will examine in greater detail the use of each of these clause-final particles in terms of ethnicity and age.

Quantitative analysis of the use of lah, leh, *and* lor

Figure 6.4 shows that the average number of tokens of *lah* per person for Chinese speakers is 80.7 tokens per person; 104 tokens per person for Malay speakers; and 40.5 tokens for Tamil speakers. All speakers in each ethnic group used at least one token of *lah* in the duration of their sociolinguistic interview which lasts between 40 and 65 minutes long.

Figure 6.5 shows that the average number of tokens of *lah* per person for middle-aged speakers is 62.9 tokens per person, and 97.7 tokens per person for young adult speakers. All speakers in each age group used at least one token of *lah* in the duration of their sociolinguistic interview.

Figure 6.6 shows that the average number of tokens of *leh* per person for Chinese speakers is 2.33 tokens per person; 0.75 tokens per person for Malay speakers; and 0.00 tokens for Tamil speakers. Five of twelve Chinese speakers used

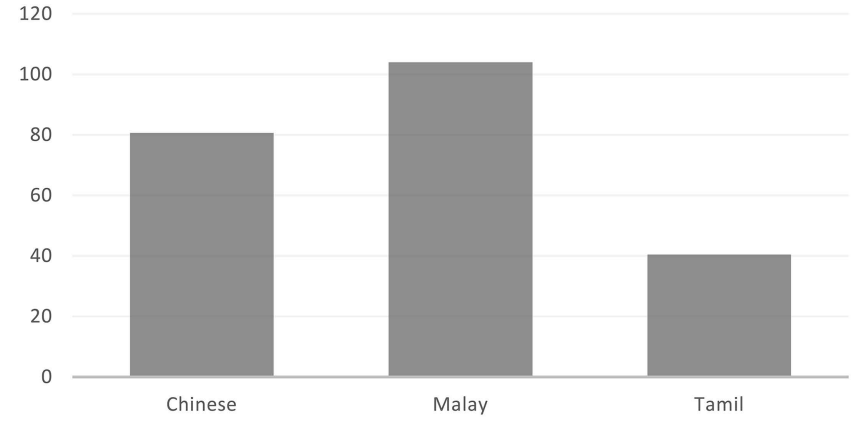

Figure 6.4 The average number of tokens of *lah* per speaker according to ethnic group

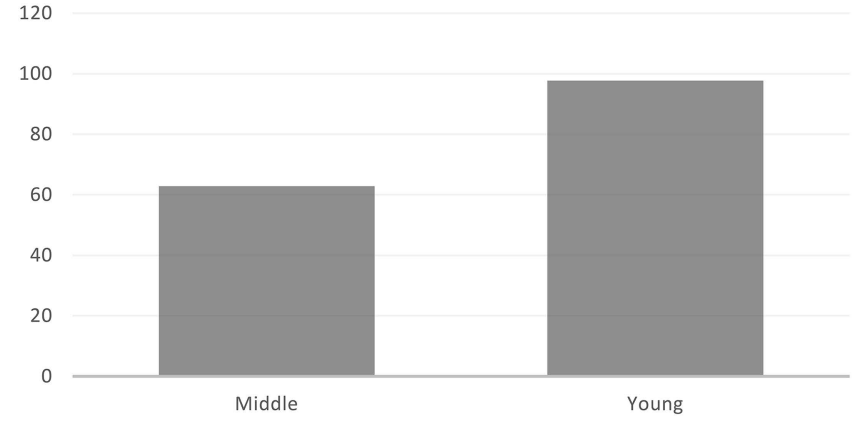

Figure 6.5 The average number of tokens of *lah* per speaker according to age group

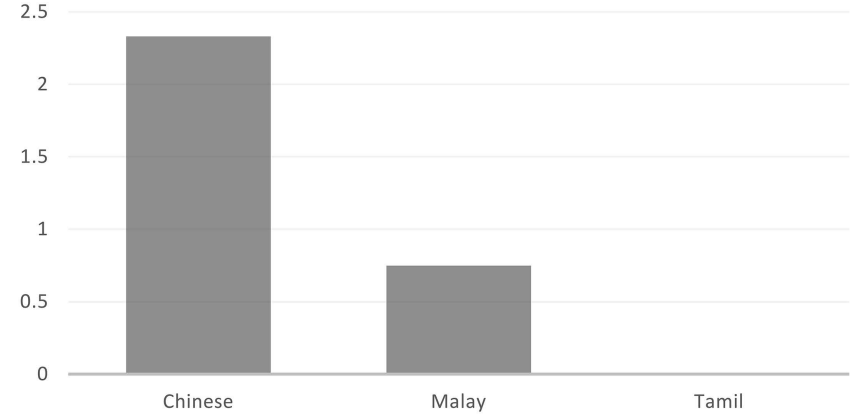

Figure 6.6 The average number of tokens of *leh* per speaker according to ethnic group

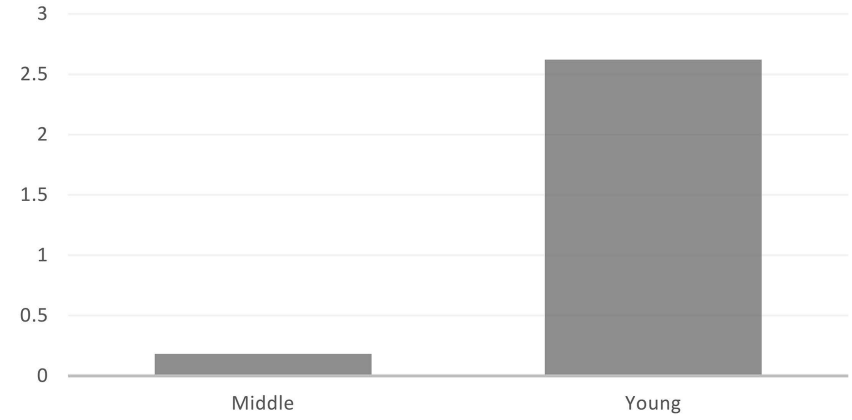

Figure 6.7 The average number of tokens of *leh* per speaker according to age group

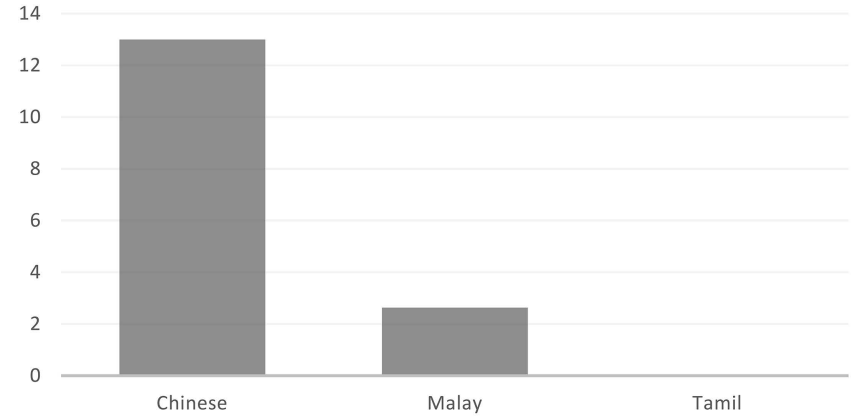

Figure 6.8 The average number of tokens of *lor* per speaker according to ethnic group

at least one token of *leh* in the duration of their sociolinguistic interview; two of eight Malay speakers used at least one token of *leh* in their interview; and zero of four Tamil speakers used at least one token of *leh* in their interview.

Figure 6.7 shows that the average number of tokens of *leh* per person for middle-aged speakers is 0.182 tokens per person, and 2.62 tokens per person for young adult speakers. Two of eleven middle-aged speakers used at least one token of *leh* in the duration of their sociolinguistic interview, and five of thirteen young adult speakers used at least one token of *leh* in their interview.

Figure 6.8 shows that the average number of tokens of *lor* per person for Chinese speakers is 13.0 tokens per person; 2.63 tokens per person for Malay

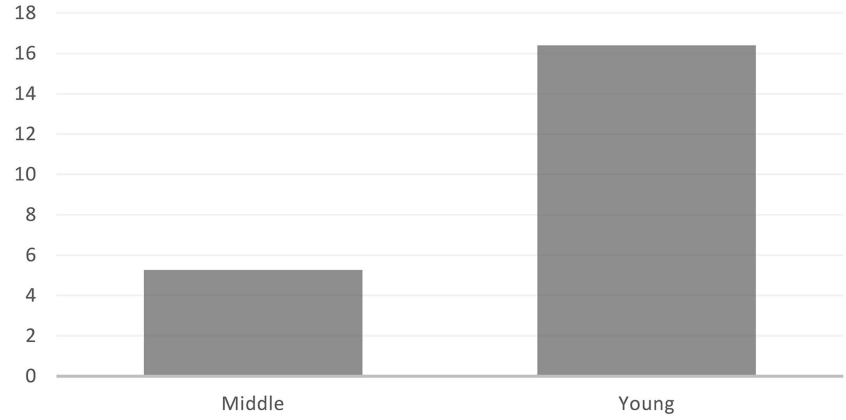

Figure 6.9 The average number of tokens of *lor* per speaker according to age group

speakers; and 0.00 tokens for Tamil speakers. Eleven of twelve Chinese speakers used at least one token of *lor* in the duration of their sociolinguistic interview; four of eight Malay speakers used at least one token of *lor* in their interview; and zero of four Tamil speakers used at least one token of *lor* in their interview.

Figure 6.9 shows that the average number of tokens of *lor* per person for middle-aged speakers is 5.27 tokens per person, and 16.4 tokens per person for young adult speakers. Six of eleven middle-aged speakers used at least one token of *lor* in the duration of their sociolinguistic interview, and nine of thirteen young adult speakers used at least one token of *lor* in their interview.

Discussion of the quantitative data

The quantitative analysis of the twenty-four interviewees' use of *lah*, *leh*, and *lor* supports several of Lim's (2007) claims about the ages and origins of these three clause-final particles. First, *lah* is one of the earliest clause-final particles that was incorporated into Colloquial Singapore English. Second, *leh* and *lor* were incorporated into Colloquial Singapore English later when influence from Cantonese popular culture was at its greatest. Third, *leh* and *lor* were of Chinese origin, or more specifically, they were adopted from the Cantonese dialect.

Table 6.1 summarizes the percentage of interviewees in a particular social group that used at least one token of a particular clause-final particle in the duration of their interview. As one of the earliest clause-final particles that was incorporated into Colloquial Singapore English, *lah* appears in the speech of all twenty-four interviewees and is used across all ethnic groups and age groups (see Table 6.1). Since it has been incorporated into Colloquial Singapore English for a longer time period, it has had more time to spread to a larger proportion of the population than clause-final particles that were incorporated later. Comparatively, its usage

Table 6.1 Percentage of interviewees who used at least one token of a certain clause-final particle

Age	*lah*	*leh*	*lor*
Young adult	100%	38.5%	69.2%
Middle-aged	100%	18.2%	54.5%
Ethnicity	*lah*	*leh*	*lor*
Chinese	100%	41.7%	91.7%
Malay	100%	25%	50%
Tamil	100%	0%	0%

is therefore more widespread than the later clause-final particles, *leh* and *lor*. On the other hand, since *leh* and *lor* were incorporated at a later time, it is less likely that a middle-aged person would acquire the use of these particles as compared to a younger speaker. This is reflected in the interview data as shown in Table 6.1, where more young adult speakers used clause-final particles *leh* or *lor* in their interviews than middle-aged speakers. Lastly, since *leh* and *lor* are of Chinese origin, the use of these clause-final particles most likely spread from Chinese speakers to other ethnicities. As such, these particles should be predominantly used by Chinese speakers and this is also reflected in the interview data as shown in Table 6.1, where Chinese speakers lead in the use of these clause-final particles. A major caveat to this analysis is that the absence of a clause-final particle in a single sociolinguistic interview does not equate to an individual not acquiring that particular particle. It could simply be that the individual did not have the opportunity to use the discourse particle in the duration of the interview. However, considering the fact that there is a 100% usage rate for *lah* and not *leh* or *lor*, and the fact that *leh* and *lor* have the same lexical tones as their Cantonese counterparts (Lim 2007), it is still highly likely that the above analysis paints an accurate picture of the use of these particles in the general populace.

The quantitative analysis of the twenty-four interviewees' use of *lah*, *leh*, and *lor* also points to the important role that parallel constructions play in the acquisition and the usage frequency of these clause-final particles. If we look at the overall average of tokens per person for all three clause-final particles, the averages for Chinese and Malay speakers are similar at 96 tokens per person and 107 tokens per person respectively. However, the average for Tamil speakers is lower at 40.5 tokens per person. As previously mentioned, there are no clause-final particles in Tamil which follows that there are no parallel constructions between clause-final particles in Colloquial Singapore English and Tamil. With a lack of parallel constructions between Colloquial Singapore English and Tamil, there is less motivation for Tamil speakers to use clause-final particles in Colloquial Singapore English, and they are thus less likely to use clause-final particles in their speech compared to Chinese and Malay speakers. On the contrary, since parallel constructions exist for Chinese and Malay speakers, they tend to use clause-final particles in Colloquial Singapore English more frequently.

(16a) 不 要 这 样 啦
bú yào zhè yàng **la**
NEG want DET style DIS
'Please do not be like this'

(16b) Don't like that **lah.**

'Please do not be like this.'

Examples (16a) and (16b) are a pair of parallel constructions between Colloquial Singapore Mandarin and Colloquial Singapore English. In a situation where a Chinese-English speaker wishes to show mild displeasure to someone's behavior, both (16a) and (16b) are possible utterances, especially if the interlocutor is also a Chinese-English bilingual. As such, the suppressed *la* construction, (16a), motivates the use of the *lah* construction, (16b), as the final output. That is to say, parallel constructions between these two languages motivate the use of the Colloquial Singapore English *lah* construction in a situation where the Chinese *la* construction can also be used. Similarly for Malay-English bilinguals, parallel constructions between Malay *lah* and Colloquial Singapore English *lah* motivates the synchronic use of *lah* in the same manner.

An additional piece of evidence for the existence of parallel constructions is the predominant use of *yah lor* and *one lah* by Chinese speakers. In the sociolinguistic interview data collected from the twenty-four interviewees, only Chinese speakers use the forms *yah lor* and *one lah* in their interviews (see Examples 17(a) and 17(b)).

(17a) Because they are doing a lot of customer, Malays **one lah**.

'Because they have a lot of customers, Malay customers.'
(Chinese Male, 55 years old)

(17b) 因为 他们 有 很多 顾客， 马来 的 啦
yīnwei tāmen yǒu hěnduō gùkè, Málái **de** **la**
because 3PL have many customer, Malay NMZ DIS
'Because they have a lot of customers, Malay customers.'

Like what was observed with the use of the colloquial variants of *already*, *got*, and *one* in Chapter 5, parallel constructions also seem to have an influence on the acquisition process of clause-final particles. As mentioned previously in the section on parallels in Chinese and Malay, of the three clause-final particles examined in this chapter, the Malay language only has the *lah* particle. Without parallel constructions to facilitate acquisition, it is likely that not all Malay speakers acquired the use of clause-final particles *leh* and *lor* (see Table 6.1). Similarly, for Tamil speakers, without any parallel constructions in their ethnic language to facilitate learning, there is a greater level of difficulty for them to acquire clause-final particles. As such, the only clause-final particle that Tamil speakers acquired most readily is the most frequently used particle *lah*. It is widely agreed in the language acquisition literature

that frequent lexical items are acquired first, all else being equal (Ambridge et al. 2015). In the case of *lah*, *leh*, and *lor*, clause-final *lah* has the highest token frequency, appearing a total of 1962 times in the entire sociolinguistic interview data. This is followed by *lor* at a distant 177 tokens and *leh* at 34 tokens. With clause-final *lah* being at least ten times more frequent than *lor* and *leh*, it is likely to be the first clause-final particle that any individual who is new to this language variety will acquire.

To conclude, parallel constructions not only facilitate the acquisition of certain constructions in a target language, they also motivate the use of a particular construction which increases the rate that it appears in speech. However, more importantly for the context of clause-final particles, these particles can be used to create personal styles, which is why certain individuals use a wider variety of clause-final particles, and use certain clause-final particles at a much higher rate of frequency than other individuals.

Speaker style

In this section on speaker style, we will examine in detail the speech of two young Chinese individuals who actively create their own unique personal style by utilizing *leh* and *lor* differently from other speakers. Leimgruber (2016) has shown the way in which linguistic features in Colloquial Singapore English can index different stances and Kiesling (2009) has shown that the repetitive and consistent use of a stance in similar speech situations can create a unique speaker style for an individual. Taking an approach that fuses both of these frameworks together, the manner in which clause-final particles like *leh* and *lor* index different stances to create unique speaker styles will be investigated in what follows.

Interestingly, there is variation in terms of the variety and frequency at which an individual uses clause-final particles, even among Chinese-English bilinguals (see Table 6.2).

Table 6.2 Variation in the use of clause-final particles (Chinese speakers)

Speaker	*Age*	*Ethnicity*	*Tokens of* lah	*Tokens of* leh	*Tokens of* lor
A	Middle-aged	Chinese	16	0	0
B	Middle-aged	Chinese	33	0	3
C	Middle-aged	Chinese	45	1	15
D	Middle-aged	Chinese	223	0	17
E	Middle-aged	Chinese	70	0	17
F	Middle-aged	Chinese	74	0	1
G	Young adult	Chinese	74	0	18
H	Young adult	Chinese	30	3	28
I	Young adult	Chinese	154	6	72
J	Young adult	Chinese	55	18	66
K	Young adult	Chinese	110	2	4
L	Young adult	Chinese	84	0	8

Table 6.2 shows the use of clause-final particles in the sociolinguistic interviews by all 12 Chinese-English bilinguals. Some individuals, like speaker A, make use of clause-final particles sparingly while other individuals, like speaker D, uses clause-final particles at a very high rate. There are also individuals who use all three clause-final particles on a regular basis, like speaker J, and individuals who use only one or two clause-final particles regularly, like speaker A. In what follows, we will zoom in on two case studies – speaker J's use of *leh* and speaker I's use of *lor*. Speaker J uses *leh* 18 times in the duration of the sociolinguistic interview, and this is three times more than the next highest number of tokens. On the other hand, speaker I uses *lor* 72 times in the sociolinguistic interview, and this is the highest number of tokens among the 12 interviewees.

The first case study that we will examine is the use of *leh* in indexing a humble or respectful stance. Examples (18) to (20) illustrate the way in which a young Chinese-English bilingual uses *leh* to index a respectful stance.

(18) They say that when you work, people will look at your demerit point, but then don't think so **leh**.

'They say that when you start looking for work, employers will look at your demerit points, but I don't think that is true.'
(Chinese Female, 18 years old)

As mentioned earlier, the core sense of *leh* is to indicate tentativeness and what it does in Example (18) is to soften the tone of the speaker's opinion so that it does not come off as overly assertive. In this way, the speaker will sound humbler and more respectful to the interlocutor. Additionally, the use of *leh* at the end of opinions will make them sound weaker so that it will not offend someone who holds a different opinion, especially if that someone is a person who is more senior in terms of age or authority.

(19) A: But Labrador Park is very small, right. Just the seaside.

'But Labrador Park is very small, right. Just a small stretch of sea.'

B: Is it? Quite big. Yah, but quite nice **leh**. I like it **leh**.

'Is that so? I think it is quite big. Yah, but I think it is quite nice. I personally like it.'
(A = Chinese Male, 31 years old; B = Chinese Female, 18 years old)

In Example (19), the same speaker uses *leh* to make her opinions sound weaker when talking to a person who potentially holds an opposite opinion. As her interlocutor is a senior who graduated from the same college she is attending, she does not wish to offend or annoy him by offering strong opinions that are contrary to what he may think. As shown in this example, speaker A thinks that Labrador Park is a very small park and this implies that he may not think the park is nice, or he may not like the park. Hearing that, speaker B uses *leh* after *quite nice* and *I like*

it to soften the tone of her own opinions so as not to annoy speaker A, who might have a contrasting view about the park.

(20) A: They were saying they want women to go to NS (National Service), right?

'They were saying that they want women to serve National Service, right?'

B: Yah.

A: I think it's for the less tough position lah.

'I think it's for the positions that are not as tough.'

B: Actually I don't know whether it's good or it's bad **leh**. Like . . . did it have an effect on you? Did it change you?

'Actually, I personally don't know whether it's good or it's bad. Like . . . did it have an effect on you? Did it change you?'
(A = Chinese Male, 31 years old; B = Chinese Female, 18 years old)

The use of *leh* as a pragmatic softener can also be extended to assertions about not knowing something or someone. Example (20) is an instance of the way in which *leh* can be used to soften the tone of an assertion about not having an opinion on the issue of whether National Service is good or bad. Since directly saying *I don't know* feels like someone is ending a conversation abruptly, it may come off as offensive to an interlocutor. Therefore, speaker B in Example (20) not only added a *leh* to the end of her sentence about not knowing whether it is good or bad, she also asked follow-up questions so that the conversation can continue.

To sum up, Examples (18) to (20) show how *leh* can be used to index a humble or respectful stance. The constant and consistent use of *leh* as a pragmatic softener creates a speaker style unique to this interviewee as the frequency at which she uses *leh* in lieu of the other means of indicating a respectful stance (e.g., tone) is not seen in the speech of the other interviewees.

The next case study is the use of *lor* in indexing a nonchalant or cool stance. Examples (21) to (23) illustrate the way in which a young Chinese-English bilingual uses *lor* to index a cool stance.

(21) Then there's like a . . . there was this incident where my friend . . . like fight with the principal **lor**.

'Then there was this incident where my friend fought with the principal.'
(Chinese Male, 28 years old)

As previously mentioned, the core meaning of *lor* is to indicate obviousness and what it does in Example (21) is to index a nonchalant stance. An event that has an obvious result is most likely ordinary and not surprising. By attaching *lor* to what is in fact, a shocking event of his friend fighting with the principal,

the speaker signals a sense of nonchalance or a cool and calm attitude towards an unexpected situation.

(22) Then I got . . . my new friends, one of them I think, stare at some Malay gang whatever not. Then also got like . . . they just attack him **lor**. From the back.

'Then one of my new friends, stared at some Malay gang, and they just attacked him from the back.'
(Chinese Male, 28 years old)

Similar to what he said in Example (21), the same speaker attaches *lor* to another unexpected event. In this example, an unexpected physical attack from behind resulted from an exchange of stares. As in Example (21), the speaker uses *lor* in Example (22) to index a nonchalant stance or cool stance by indicating that such an event is ordinary or unsurprising to him.

(23) A: So did you take part in the protest and stuff?

'So did you take part in the protests and other (political) activities?'

B: No lah, I don't take part lah. But I have my say to it lah. I know I have my frustration to them lah. But . . . yah **lor**, see how it goes **lor**.

'No, I didn't take part. But I have my say on these issues. I know I have my grievances against them. But okay, let's see how it goes.'
(A = Chinese Male, 31 years old; B = Chinese Male, 28 years old)

The use of *lor* to index a cool stance can also be extended to serious topics like political discussions. Example (23) is an instance of the way in which *lor* can be used to index a cool stance when talking about a serious topic like how the country should be governed in the future. Speaker A asks speaker B if he participates in protests against the government and other political activities, to which speaker B replies that even though he does not participate in political activities, he knows he has a say because he is a citizen of the country. However, he adopts a cool stance and says that he will wait and see before deciding on whatever action he may take in the future regarding this issue. To further emphasize on his cool stance on the issue, he attaches *lor* to the end of *let's see how it goes*.

To sum up, Examples (21) to (23) show how *lor* can be used to index a nonchalant or cool stance. Similar to the constant use of *leh* to index a humble stance by certain individuals, the constant use of *lor* as an index of nonchalance creates a speaker style unique to this interviewee as the frequency and consistency at which he uses *lor* to index a cool stance is very different from that of other interviewees.

In conclusion, an important reason why clause-final particles in Colloquial Singapore English are an open class of lexical items is the fact that individuals use them in creative ways for stylistic purposes and people are constantly on the lookout for new lexical items to incorporate to achieve this end. The two case studies

show that each individual is able to actively make use of clause-final particles in innovative ways to create unique speaker styles. The two primary ways they do so are, 1) extending the use of a clause-final particle to novel linguistic contexts. For instance, extending the use of *lor* from the context of talking about surprising events to the context of discussion on serious issues; 2) using the clause-final particle to index a particular stance frequently and consistently in a fixed set of situations. For instance, the consistent use of *leh* in indexing a respectful stance when offering one's opinions to someone who is more senior in status.

Notes

1 According to one informant, Tamil has a suffix /e/ that can be attached to any word to indicate emphasis. For example, if a speaker wishes to emphasis the action of eating, he or she can add /e/ to the end of the word சாப்பிட்டான் *cāppiṭṭāṉ* 'eat' to form சாப்பிட்டான்னே *cāppiṭṭāṉṉē* 'eat'.
2 The R code for this Poisson model is "M1 <- brm(Tokens ~ Ethnicity*Age + Dominance, data = MyData, family = 'Poisson')". A statistical model that includes all possible social and linguistic factors is not possible due to insufficient observations.

References

Ambridge, Ben, Evan Kidd, Caroline F. Rowland, and Anna L. Theakston. 2015. The ubiquity of frequency effects in first language acquisition. *Journal of Child Language* 42. 239–273.

Bu, Jiemin. 2013. A study of the acquisition of discourse markers by Chinese learners of English. *International Journal of English Studies* 13(1). 29–50.

Goddard, Cliff. 1994. The meaning of 'lah': Understanding 'emphasis' in Malay. *Oceanic Linguistics* 33(1). 145–165.

Gupta, Anthea Fraser. 1992. The pragmatic particles of Singapore colloquial English. *Journal of Pragmatics* 18(1). 31–57.

Gupta, Anthea Fraser. 2006. Epistemic modalities and the discourse particles of Singapore. In Kerstin Fischer (ed.), *Approaches to discourse particles*, 243–263. Amsterdam: Elsevier.

Kiesling, Scott F. 2009. Style as stance: Can stance be the primary explanation for patterns of sociolinguistic variation? In Alexandra Jaffe (ed.), *Sociolinguistic perspectives on stance*, 171–194. Oxford: Oxford University Press.

Lee, Cher Leng. 2015. Compliments and compliment responses of Singapore Chinese university students. *Global Chinese* 1(1). 169–201.

Leimgruber, Jakob R. E. 2016. 'Bah' in Singapore English. *World Englishes* 35(1). 78–97.

Ler, Soon Lay Vivien. 2006. A relevance-theoretic approach to discourse particles in Singapore English. In Kerstin Fischer (ed.), *Approaches to discourse particles*, 149–166. Amsterdam: Elsevier.

Lim, Lisa L. S. 2007. Mergers and acquisitions: On the ages and origins of Singapore English particles. *World Englishes* 27(4). 446–473.

Lin, Chun Hai. 2015. *Xīnjiāpō huáyu 'wèicí+huì+(NP)' jiégòu yánjì* [The investigation of 'verbal items+hui+(NP)' structure in Singapore Mandarin]. Singapore: National University of Singapore B.A. thesis.

Lin, Jingxia, and Yong Kang Khoo. 2018. Singapore Mandarin Chinese: Its variations and studies. *Chinese Language and Discourse* 9(2). 109–135.

Smakman, Dick, and Stephanie Wagenarr. 2013. Discourse particles in colloquial Singapore English. *World Englishes* 32(3). 308–324.

Wee, Lionel. 2004. Singapore English: Morphology and syntax. In Bernd Kortmann, Kate Burridge, Rajend Mesthrie, Edgar W. Schneider, and Clive Upton (eds.), *A handbook of varieties of English. Volume 2: Morphology and syntax*, 1058–1072. Berlin: Mouton de Gruyter.

Wong, Jock Onn. 1994. *A Wierzbickan approach to Singlish particles*. Singapore: National University of Singapore M.A. thesis.

Wong, Jock Onn. 2004. The particles of Singapore English: A semantic and cultural interpretation. *Journal of Pragmatics* 36(4). 739–793.

7 Conclusion – Towards a more complete picture

The previous chapters on the morphology, semantics, and discourse of Colloquial Singapore English have shown the way in which crosslinguistic influence is a complex phenomenon that can only be fully understood by considering both the social and linguistic aspects of the phenomenon. Taking the linguistic factor of parallel constructions as a motivation of crosslinguistic influence, the amount of crosslinguistic influence exhibited by an individual can either be increased or decreased by other social and linguistic factors with respect to this motivating factor. In Chapter 4, Tamil speakers mark past tense and plurality more frequently than Chinese and Malay speakers because of parallel constructions between Tamil and Colloquial Singapore English. This tendency to mark past tense and plurality can be increased or decreased by social factors like one's education level and linguistic factors like whether a preceding sound is a vowel or a consonant for past tense marking on weak verbs. In Chapter 5, although the parallel constructions between Chinese *yǒu* and Colloquial Singapore English *got* motivate the use of *got* as a realis modality marker, an individual with a high level of English proficiency will tend not to use *got* as a realis modality marker since they know that *got* does not take a VP complement. In Chapter 6, the lack of clause-final discourse particles in Tamil made Tamil speakers less likely to use *lah* in their speech. Nevertheless, one Tamil speaker who has a positive attitude toward Colloquial Singapore English uses *lah* as frequently as other Chinese and Malay speakers. To conclude, a bilingual's linguistic repertoire provides a potential for crosslinguistic influence through the linguistic factor of parallel constructions. However, to what extent this potential is realized depends on other linguistic factors and on social factors like one's language dominance and attitude towards various languages.

The importance of parallel constructions in crosslinguistic influence has implications for a wide range of fields including language pedagogy, second language acquisition, and contact linguistics. In terms of second language acquisition, the presence or absence of parallel constructions between an individual's existing linguistic knowledge, and the target language will very likely effect how well that individual acquires particular features of the target language. Similar to transfer features in Colloquial Singapore English, the acquisition of a target language feature will also be influenced by individual-level social factors like language proficiency and language attitudes, and linguistic factors like complexity and

salience. The fact that parallel constructions can influence the acquisition process will inform the manner in which languages are taught in the classroom, with the most time devoted to teaching constructions that are subtly different between the first language and the target language.

In terms of contact linguistics, parallel constructions between two languages are a major force in shaping a contact language. Crosslinguistic influence through parallel constructions can shape the contact language in two ways. First, innovations in a contact language may be reinforced and as a result of such reinforcement, become stabilized over time. For example, Colloquial Singapore English *got* being used to convey the meanings of possession and existence. Second, certain linguistic features or structures may appear more frequently compared to the standard variety of the target language. For example, the frequent use of pronominal *one* as a result of influence from Chinese *de*.

An interesting pattern emerges when we consider the interplay of social and linguistic factors in all the three linguistic domains of morphology, semantics, and discourse. Different linguistic features seem to be influenced by social and linguistic factors to varying extents and one crucial concept to understanding such differences is 'salience'. Two types of salience are of particular concern. The first is perceptual salience, i.e. whether a linguistic feature is phonetically salient. The second is salient difference, i.e. whether there is an easily discernible difference between Colloquial Singapore English and Standard English with respect to a certain linguistic feature.

As shown in Table 7.1, perceptually salient linguistic features are more likely to be socially mobilized or employed to create social identities and speaker styles than non-salient linguistic features. For instance, it is very likely for discourse particles like *lor* to be used to create a personal speaking style while it is less likely for absence of past tense marking to be used for such a purpose since few people will pay attention to linguistic features that are perceptually non-salient. What this means is that linguistic factors will tend to play a bigger role on the distribution of perceptually non-salient features in speech while social factors will tend to play a bigger role on the distribution of perceptually salient features in speech.

On the other hand, 'salient difference' refer to linguistic features that exhibit an easily discernible difference between Colloquial Singapore English and Standard English. This means that an individual with a minimal amount of knowledge of English will be able to tell that a particular feature in Colloquial Singapore

Table 7.1 Relationship between salience and social function

	Perceptual salience	*Non-salient perceptually*
Salient difference	E.g. Discourse particles *lor* and *leh*	E.g. past tense marking and plural marking
Non-salient difference	E.g. Lexical items that have underwent expansion of semantic functions like *one*	E.g. Diphthongs like /eI/ pronounced as [e:]
Outcome:	➔ More likely to be socially mobilized	➔ Less likely to be socially mobilized

English is not used the way it should in Standard English. For instance, there are no clause-final discourse particles in Standard English but there are clause-final particles in Colloquial Singapore English; past-tense marking is marked regularly in Standard English but past-tense marking is at times missing in Colloquial Singapore English. These are salient differences between Colloquial Singapore English and Standard English that are easily discernible, even for a beginning English learner. As for non-salient difference, it refers to linguistic features that exhibit a subtle difference between Colloquial Singapore English and Standard English. Only a speaker who has a more advanced level of knowledge of English will be able to tell that this linguistic feature is different from the equivalent feature in Standard English. For instance, as a result of Chinese influence, the verb *follow* can mean 'to accompany' in Colloquial Singapore English, this is a subtle difference that most speakers will likely think is standard usage in English. For linguistic features that are perceptually salient but differ subtly from Standard English, they are only likely to be socially mobilized by more advanced English speakers. That is to say, speakers with a minimal knowledge of English will use a colloquial term like *my one* 'mine' regardless of the interlocutor, whereas a more advanced speaker will only use *my one* 'mine' when the interlocutor is also speaking Colloquial Singapore English to indicate a sense of community but not when the speaker is a foreigner who speaks Standard English.

To conclude, there are broadly four types of linguistic features when we consider the relationship between salience and social function (see Table 7.1). The first group consists of features that are perceptually salient and are saliently different from Standard English. An example of such a feature is discourse particle *lor*. As speakers and hearers pay the most amount of attention to these features, they are most likely to be socially mobilized to create either an in-group identity or a unique speaking style. The second group consists of features that are perceptually salient but not saliently different from Standard English. An example of such a feature is possessive and existential *got*. This group of features is likely to be socially mobilized by only advanced speakers to create an in-group identity or a unique speaking style as they know that these features are in fact different from the standard variety. The third group consists of features that are not perceptually salient but saliently different from Standard English. An example of such a feature is past tense marking on weak verbs. This group of features is not likely to be socially mobilized as speakers and hearers do not pay a lot of attention to such features. The fourth and final group consists of features that are not perceptually salient and not saliently different from Standard English. An example is the pronunciation of /eI/ as a long vowel [e:] (Deterding and Hvitfeldt 1994). This group of features is most unlikely to be socially mobilized as speakers and hearers pay little attention to such features, and only the most advanced speakers would know that they differ from Standard English.

Reference

Deterding, David, and Robert Hvitfeldt. 1994. The features of Singapore English pronunciation: Implications for teachers. *Teaching and Learning* 15(1). 98–107.

Index

Note: Page numbers in *italics* indicate figures and page numbers in **bold** indicate tables.