

**Child L2 phonology acquisition under the influence of multiple
varieties**

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Abstract

Input variability is vividly present even in L1 acquisition contexts (Foulkes and Docherty 2006), let alone in an FL/ L2 context where learners are exposed to input in one form from fellow students, to a different variety from the local teacher, and possibly another variety from the institutional model which typically represents the “native-standard norm” (Cook 2008; Regan 2013). However, little is currently known about (second) language acquisition in relation to input multiplicity (cf. Siegel 2010). In fact, it is unclear how L2 acquisition models such as the Speech Learning Model (Flege 1995) or Optimality Theory (Prince and Smolensky 1993) cope with input comprising multiple varieties. Against this backdrop, this study set out to investigate the nature of child L2 phonology acquisition under the influence of multiple varieties and its interface with sociolinguistic factors in Hong Kong (HK).

The study looks at L2 English phonology acquisition by Hong Kong Cantonese children when various varieties are present. Specifically, it targets youngsters exposed to Filipino-accented English from live-in housekeepers in addition to the school and community input encompassing UK, US, and HK varieties. Results show that the 31 kindergarteners in their third year of studies aged 4;6 to 6, and the 29 first year secondary school students aged 11 to 14 who had received/were still receiving Filipino-accented English significantly outperformed 34 age-matched controls who were not exposed to such input on a picture-choosing task and a sound discrimination AX³ task targeting Filipino English plosives /p,t,k/ and fricatives /f,v/ (plosive onsets are often unaspirated while /f,v/ are sometimes rendered as [p,b] respectively in this variety (Tayao 2008)). These findings confirm predictions made by L2 speech acquisition theories in that the acquisition of L2 phonology is possible given a sufficient amount of exposure to the target language input.

However, participants did not produce this variety in the production part of the experiment (a picture naming and a pair matching task) despite showing signs of perceptual knowledge. In addition, a separate instrument (verbal-guise technique) tapping into informants' attitude towards Filipino-accented English reveals ambivalent attitudes towards this variety, making it challenging for one to resort to speech accommodation (Beebe and Giles 1984) or speech design models (Bell 1984; 2001) for an adequate explanation.

This study highlights the complexity involved when multiple varieties are present in the acquisition context, which is arguably the norm rather than the exception in this current age of unprecedented geographic, social, and occupational mobility (Chambers 2002). It also reminds us of the importance of scrutinising from several perspectives the nature of input in L2 phonology (Moyer 2011; Piske and Young-Scholten 2009). Without a clear understanding of the diversity present in the input, it is difficult to make any solid claims about learners' phonological competence in a given target language. In addition, the seemingly conflicting results on the perceptual and production parts of the study underline how essential it is to analyse the acquisition outcome from several perspectives through task triangulation.

Keywords: L2 phonology; L2 perception; L2 production; multiple varieties; multiple input; input multiplicity; input variability; Hong Kong Chinese; Hong Kong English; Filipino English.

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Chapter 1. Introduction

The first studies of the second language (L2) acquisition of phonology and, in fact, of language acquisition more generally, expended considerable effort on the investigation of whether learners were subject to the critical period.¹ This view assumes that the acquisition of an L2 becomes increasingly difficult once learners have passed puberty (Lenneberg 1967; Long 1990; Penfield and Roberts 1959; also Birdsong 1999). This is a reasonable concern since the majority of older second language learners seem to fall short in becoming native-like even after a prolonged period of learning. In fact, it does not take a linguistically trained speaker to identify a second language learner with a poor command of the L2, particularly with respect to the phonetic and phonological nuances of the newly acquired language (Munro 2008; Strange and Shafer 2008). This claim relating acquisition and maturation finds support from studies that show younger L2 learners being rated more native-like than their adult counterparts (e.g. Paradis 2007; Scovel 1969; 2000; Snow and Hoefnagel-Höhle 1977; 1978; Winitz, Gillispind Starcev 1995). Moreover, it is fair to say that the critical period hypothesis (CPH) has been and remains a central issue for linguists in the field (see Birdsong 1999; Bongaerts 2005; Hyltenstam and Abrahamsson 2000; Abrahamson and Hyltenstam 2012; Rothman 2008; Scovel 2000 *inter alia*).

However, the growing body of research detailing the acquisition of a second language, including those studies that focus on the realm of phonology, by learners who are actually successful has led to the establishment of views that run counter to the purported CPH (e.g. Bongaerts 1999; 2005; Bongaerts, Mennen and van der Slik 2000; Flege and Liu 2001; Ioup, Boustagi, El Tigi and Moselle 1994; Moyer 1999; Wode 2009;

¹ *Acquisition* and *learning* are used interchangeably unless otherwise stated.

Young-Scholten 1994). Although the exact details are still the foci of debate, it is now generally believed that even adult learners can in fact acquire a native-like L2 phonology given a sufficient amount of exposure to the target input. In a state-of-the-art review of second language perception Strange stated that:

Human beings are capable of learning additional languages during their lifetime, given sufficient experience with, or formal instruction in, the non-native language(s). Thus, the human capacity to learn language via experience with spoken language input is maintained throughout the life span (Strange 1995: 3).

This is a view currently shared by many researchers who work in the field of second language speech learning (e.g. Flege 1995; 2003; Munro, Derwing and Flege 1999; Strange and Shafer 2008; Wode 1995; 2009; Young-Scholten 1996; Young-Scholten and Piske 2009). It is important to stress, however, that the availability of mechanisms for L2 acquisition does not necessarily guarantee a native-like ultimate attainment.

In fact, it remains a puzzle that most L2 learners are characterised by a foreign accent despite the availability of acquisition mechanisms. In relation to that, some researchers have pointed out that although the acoustic and auditory ability required for a person to differentiate sounds (linguistic and non-linguistic) is available (Werker and Logan 1985), their actual perceptions are affected heavily by their established L1 phonological system (Lado 1957). Therefore, a foreign sound could be misperceived as the equivalent of a sound in one's first language if it is similar enough (cf. Speech Learning Model (Flege 1995), Perceptual Assimilation Model (Best 1995)). According to such a view, the acquisition of a new L2 sound is only possible when it cannot be categorised within the existing phonology, hence Zulu clicks are perceived unproblematically by most native English speakers who have no previous knowledge of clicks because they are held to be significantly different from any sound available in the English phonemic inventory (Best, McRoberts and Goodell 2001; Best, McRoberts, and Sithole 1988; Werker and

Pegg 1992). Concurrently, learners' acquisition is also confounded with factors such as age of onset, length of residence, and formal instruction (Piske, MacKay and Flege 2001), adding to the complexity of the equation. For instance, in two seminal studies, it was found that learners' degree of accent in an L2 is significantly correlated with the age they began learning that target language (Oyama 1976; Patkowski 1990). In particular, speakers who started learning the second language before puberty were rated as native-like, while those who were exposed to the target language after puberty were not.

All these studies have augmented our knowledge about second language (L2) phonology acquisition. However, most studies thus far have looked at acquisition in situations where only one variety of the target language is present.² But the nature of the input is not always clearly defined (Bohn and Bundgaard-Nielsen 2009; Leather 2003). Consequently, learners' attainment is viewed against certain monolingual native norms, often the standard model that is taught in school. The asserted homogenous input, as this thesis will argue, is actually an exception rather than the rule in most learning situations around the world owing to the high degree of geographic, social, and occupational mobility (Chambers 2002). As a consequence of such volatility, people of different languages and dialects inevitably come into contact with each other creating a situation where input multiplicity is vibrant. In addition, a good many L2 users learn an L2 either as a second or foreign language in a classroom context where a wide-ranging input is present (Bohn and Bundgaard-Nielsen 2009). It is typical in instructed settings that teachers are, in fact, L2 speakers of the language themselves. It is, therefore, quite possible that they speak the L2 with an accent (Young-Scholten 1995). On the other hand, teaching materials (both written and spoken) often represent native speaker norms.

² Or at least this is a convenient assumption made in the research.

In effect, learners are getting accented input from their teachers, interlanguage input (which is likely to be accented as well) from their classmates, and also native input from the teaching materials (Cook 2008; Regan 2013). In other words, the input most classroom learners get is variable in that it contains different varieties of the target language instead of a single, monolingual form. Given its complicated nature, it is perhaps surprising to find that not many studies have examined SLA in the light of input multiplicity, though a related field, namely, dialect acquisition – mostly regarding second dialect acquisition in one’s first language – has been in existence for some time (e.g. Chambers 1992; 2002; 2005; Nycz 2011; Payne 1980; Rys 2007; Siegel 2010; Stanford 2008; Tagliamonte and Molfenter 2007). In order to better understand L2 acquisition, and specifically L2 phonology acquisition for the purpose of this study, it is important for us to acknowledge the different varieties that exist in the learner’s environment and account for their possible effects. One of the main goals of this study is, therefore, to find out what happens with respect to the acquisition of a second language phonological system when young learners are confronted with multiple varieties of the target language, both in and outside the classroom.

Another related issue that emerges from studying acquisition in contexts where multiple varieties exist is the matter of language/code choice. Studies of code choice and its relation to issues such as identity (e.g. Le Page and Tabouret-Keller 1985) are abundant in the field of sociolinguistics, in variationist linguistics and sociophonetics, and are particularly relevant to phonetic variation (Foulkes and Docherty 2006; Labov 2006a). These fields of study are interested in, but not limited to, how different variables function in the social context, thereby signalling extra-linguistic information (Campbell-Kibler 2011) regarding, for example, a person’s gender (Eckert and McConnell-Ginet 2003; Talbot 2010), identity (Le Page 1986; LePage and Tabouret-Keller 1985; Norton 1997; 2000), or ethnicity (Fishman 1989; Fought 2006).

The interface between these sociolinguistic endeavours and language acquisition has yet to be fully explored (see Bayley 2000; 2005; Bayley and Preston 1996; Bayley and Regan 2004; Block 2007) though increasing attention has been paid to how social context and various sociolinguistic factors affect language acquisition. Although no acquisitionists have denied the fact that acquisition happens within social contexts (Baldwin and Meyer 2007; Haspelmath 2011), social factors have not been the focus of attention in the field of generative-based second language acquisition (SLA). This is perhaps due to the adherence within this tradition of holding a dichotomy between competence and performance following the earlier work of Chomsky (1965: 3), where he famously states:

[l]inguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech-communication, who know its (the speech community's) language perfectly and that it is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of this language in actual performance.

Competence is viewed as the core linguistic system in a speaker's mind that deserves investigating, while performance is merely an act of communication that involves extra-linguistic factors and that only constitutes peripheral facts about our understanding of the language faculty. This is a position that has attracted plenty of followers (including Fisher 2002; Gregg 2006; Lidz and Waxman 2004; Long 2005).³ Another possible reason for the lack of integration of social factors in generative SLA is perhaps due to the 'misunderstandings of concepts, findings and research developed in [sociolinguistics/] variation linguistics' (Preston 1993: 153) that the SLA community held in earlier days. Not only is the key concept of *variable rule* misconstrued as a (categorical) context-sensitive rule rather than proportional in nature as variationists

³ But see Halliday 1973; 1985; Hymes 1972; 1974; Labov 1966 for opposite views.

define it, but the methods in tabulating variants are often dubious which potentially obscured the explanatory power of variation forces (Preston 1993; 1996).

As a matter of fact, the effect of the social milieu on second language acquisition really only started to take the centre stage in non-generative SLA when Firth and Wagner (1997) called for closer scrutiny of the manner in which language acquisition occurs in conversations which are co-constructed through social interactions. It is noteworthy, as pointed out by Tarone (1997; 2000; 2007), that some researchers took up the issue long before Firth and Wagner caused a stir in the field with respect to this particular issue in 1997 (e.g. Gass, Madden, Preston and Selinker 1989 a; b; Preston 1989; 1996; Schumann 1978; Selinker and Douglas 1985). Spolsky's (1989) general model of second language learning is a case in point where he remarks on the important role that social context plays in second language acquisition. In his model, social contexts shape attitude which in turn affects the learning opportunities that eventually lead to different L2 outcomes. Other related paradigms that are interested in the social side of acquisition include the Language Socialisation paradigm (Kramsch 2002; Ochs 1988; Schieffelin and Ochs 1986), the Socio-educational model (Gardner, Masgoret and Tremblay 1999), the Socio-cultural model (Lantolf 1994; 2006), and the Socio-cognitive perspectives of second language acquisition (Atkinson 2010; Batstone 2010a; Tarone 2010), to name but a few. These are recent frameworks that are linked to the increased prominence of social factors in SLA. Together they have pointed out the indispensability of attending to the social aspects of (S)LA, the outcome of which, in turn, impacts on how the social reality of acquisition is constructed, thereby emphasising the fact that both language and acquisition are very much social phenomena as they are expressions of aspects of the individual in a community setting.

In light of the (re-)emerging interest in the social aspect of SLA (Baldwin and Meyer

2007), another aim of this thesis is to further explore the interaction between social factors and SLA in the presence of various varieties of the target language. By so doing, it helps to add to our understanding of SLA as it happens in its social context.

Specifically, this study looks at how attitude as one of the many potentially influential social factors interacts with second language phonology acquisition in a situation where there are numerous varieties of the target language in the acquirer's social milieu.

This thesis is based on empirical data collected in Hong Kong. The city is a highly multilingual and culturally diverse society and thus is a fitting test case for the investigation of child second language acquisition in its social context. This study is particularly interested, as mentioned above, in contexts where multiple varieties are present in the input. English is the chosen focus here because it is a compulsory subject that is taught as a second language from early on in the Hong Kong curriculum (So 1992). As opposed to the institutional input that students get from various teachers, local and non-local (e.g. native English teachers/NETs from different inner-circle countries (Kachru 1983; 1985; 1992; 2005)), this thesis concentrates on a variety of input that has at this point in time received sparse attention (Crebo 2003, cf. chapter 3), namely the input offered by live-in foreign domestic helpers (FDHs) whose English does not represent any of the varieties children are exposed to at school. In situations where FDHs are the main caregivers to children in households when both parents are out at work during the day, the children's main source of initial linguistic input, naturally, comes from these helpers, who in this case are from the Philippines. The situation becomes interesting when one realises that an L2 is involved, i.e. the two parties do not share a common native language since these caregivers do not speak Cantonese, the community language in the local context. The presence of English-speaking, foreign domestic helpers hence offers a window of opportunity to investigate how a variety of English different from the target taught in school (which is often the British or

American model) or the ambient variety (Hong Kong English) might affect young learners' acquisition of English phonology. Although the details about the context where the study is set will be presented in a later section, it is crucial to point out at this stage that the study has limited itself to investigating the influence on L2 English phonology that Filipino domestic helpers have since domestic workers from other places such as Indonesia or Thailand have usually received at least basic training in Cantonese prior to their arrival in Hong Kong. By concentrating on Filipino FDHs, the unnecessary complexity arising from considering as a variable the language involved in the study is minimised. It is also worth noting that the employment of foreign domestic helpers to relieve working parents from household chores is commonplace not only in Hong Kong but in many countries in the developed world (Constable 1997b; 2007). Therefore, it is believed that the implications drawn from the current dissertation will be applicable to other similar contexts where multiple varieties of a language also have a strong presence.

This study specifically investigates children's acquisition of five English sounds which are instantiated differently in Filipino-accented English than they are in other accent varieties locally present in Hong Kong (i.e. Hong Kong-, American- and British-English). The target sounds are the labio-fricatives /f/, /v/, and the set of /p/, /t/, /k/ plosives. To uncover the full competence profile of Filipino English, a set of research instruments that taps into both the perceptual and production abilities of young learners was incorporated. This allows us to observe potential discrepancies between production and perception of the variety since the relationship between the two aspects of acquisition is known to be intricate and entangled (Casserly and Pisoni 2010; Hendriks and Koster 2010). These tasks are complemented by sociolinguistic measures which aimed to elicit participants' attitudes towards different varieties of English in Hong Kong. This is important for shedding light on the possibility of language attitudes

affecting learners' code choice (cf. the speech accommodation model (Beebe and Giles 1984; Giles, Coupland, and Coupland 1991); and audience design (Bell 1984; 2001)) as well as linking the study of (S)LA to that of sociolinguistics.

Subsequent to this introductory chapter, the remaining thesis provides a literature review that summarises previous research in the areas of L2 phonology and acquisition (including dialect acquisition), and concludes with a critical discussion of sociolinguistic research focusing on language attitude formation. Through reviewing the existing work, the gaps that this study aims to fill will be identified. More specifically, Chapter 3 outlines the context where the study is set. This includes information about the language situation and the practices surrounding the employment of foreign domestic helpers in Hong Kong. This chapter also includes a report on the pilot study underpinning the main investigation where results and problems identified are discussed. The fourth chapter provides an overview of the methodological practices used, highlighting their advantages and disadvantages. It contains information regarding the distinctive methods used and the procedure employed in each of the three parts of the study so as to uncover data relating to perception, production, and attitudinal disposition and to demonstrate the rationale for choosing each type employed. There will then be a chapter that focuses on the major findings as well as one that includes a discussion of their implications and which addresses the initial research questions raised in Chapter 2. The final chapter concludes the dissertation by drawing together the key issues and suggesting prospects for future research in this area.

Chapter 2. Literature Review

This chapter reviews the literature relevant to the present thesis. It will also highlight some of the gaps that can be identified and hence motivate the research questions that the present study aims to address. To set the scene, the chapter begins by briefly summarising current understanding of (second) language acquisition ((S)LA), especially in syntax since many pioneering studies have focused on syntax and on factors such as age and input in SLA. This is then followed by a section pertaining to the key concern of this thesis - second language phonology (L2 phonology). In this section, two mainstream L2 phonology acquisition models will be outlined and their lack of concern for situations where multiple varieties exist in the input will be commented on. A review of dialect acquisition where the key principles of dialect acquisition are discussed follows. This section is particularly relevant to the present context as the study participants were essentially acquiring a second dialect (the Filipino variety) in their L2 (English). It will also underline the fact that unlike L2 phonology studies, dialect acquisition studies relied heavily on production data alone which can be inadequate in accounting for learners' full profile of competence (cf. Hendriks and Koster 2010 on the asymmetry between perception and production). Subsequently, studies on language attitude will be considered. The literature review will end by summarising the issues raised earlier in the chapter and with the present study's research questions.

2.1 Issues and Developments in (Second) Language Acquisition

Our understanding of second language acquisition has grown tremendously since the field was established some thirty years ago with the emergence of seminal studies, hypotheses and theories (see e.g. Doughty and Long 2003; Gass and Mackey 2011; Herschensohn and Young-Scholten 2013; Mitchell and Myles 2004; Ritchie and Bhatia 1996; 2009). A lot of effort has been devoted to finding the reasons behind the

seemingly disparate learning outcomes between adult and child L2 learners, namely the fact that most children learners are able to achieve a native-like proficiency, while most adults seem to fall short of such proficiency or “fossilise” (Han 2004; Han and Odlin 2006) where no further development occurs after prolonged exposure to input. This observation of differential success has been addressed by the critical period hypothesis (CPH) which states that first language acquisition becomes impossible beyond a certain age, usually around puberty (Lenneberg 1967; Johnson and Newport 1989; Penfield and Roberts 1959). As briefly mentioned in the introductory section, the CPH continues to fuel research and current debates in SLA, too (Birdsong 1999). Although “the claim that there is an age-related decline in the success with which individuals master a second language is not controversial” (Hakuta, Bialystok, Wiley 2003: 31), whether the strictest sense of a clear cut-off at the proposed critical point is borne out remains an empirical question. In view of this, others have suggested a “sensitive period” which allows for more fluidity in explaining the gradual wearing out of ability in learning an L2 as a function of age rather than a clear absolute cut-off point as the initial stronger CPH proposal suggests (Uylings 2006). In fact, we know from different research findings in this area that age is often confounded with various other factors such as length of exposure, and quantity and quality of input (Flege 2009; Moyer 1999; 2009; *inter alia*, see also various in Hulk and Marinis 2011). Nonetheless, it is commonly agreed that without being immersed in the relevant linguistic environment before puberty the acquisition of a native language is virtually impossible. This can be seen from the cases of feral children who are deprived of linguistic input early in their lives. Studies of these unfortunate children have shown that most of them could not develop a fully-fledged language system even after they were immersed into a normal social and linguistic environment subsequent to their discovery (Curtiss 1977; 1988; Eubank and Gregg

1999). This is indeed a testimony to the necessity of language input during a specific period of time for successful language acquisition.⁴

The effect of the age of onset on the acquisition of second language phonology is also widely examined. In a much cited study, Oyama (1976) found that of the 60 Italian immigrants in the United States whose length of residence ranged from 5 to 18 years, only those who began their acquisition before the age of 10 were rated as native-like in their speech. In other words, the age of onset/arrival is found to be a strong predictor of foreign accent. Similarly, Patkowski (1980; 1990) observed that the degree of foreign accent varied as a function of age among his participants. He found that the 67 L2 English learners whose age of onset ranged from 5 to 50 years were judged differently in terms of their accent. Crucially, the participants who began learning English before the age of 15 were rated as native-like in their speech, while those who began post-puberty were not. Together these provide support for the existence of a critical/sensitive period for (second) language acquisition (see Abrahamsson 2012).

Besides the much debated issue of age, it is fair to say that input is also one of the most crucial factors in (second) language acquisition regardless of one's theoretical orientation. Linguistic input is necessary for the acquisition of a specific language, and without input no acquisition is of course possible. Yet, as shall be seen in the explication below, what is involved with respect to input is, perhaps surprisingly, not always clearly defined and very often it is assumed to be an unproblematic monolithic entity that is ubiquitous in the learning environment (Leather 2003).

⁴ But one should also bear in mind the fact that evidence from cases of feral children is sometimes problematic as the inability to acquire language could have been due to early traumatic experience or brain damage (Curtiss 1977; 1988; Eubank and Gregg 1999).

On the other hand, whether language input is a sufficient condition for successful language acquisition is another debated issue. Here is where major theoretical approaches depart from one another (e.g. generativist/nativist vs emergentist/usage-based accounts). The generativist approach to language acquisition claims that input is a necessary but not a sufficient condition (Chomsky 1965; 1999). Whether it is comprehensible input or incomprehensible input that triggers language acquisition is not resolved. Krashen's input hypothesis (1985), for example, maintains that comprehensible input is the only thing needed for acquisition, while Schwartz (1993) argues that it is exactly when the learner fails to comprehend certain aspects of the language that acquisition is triggered. Generativists believe that language acquisition is only possible because the learner comes to the learning situation equipped with a language faculty which is universal in nature. Universal Grammar (UG) as the core construct in this approach contains principles that are universal to all human beings across all languages (e.g. Chomsky 1965; 1999; Cook and Newson 2007; Hawkins 2007b; White 1989; 2003). Simplifying somewhat, UG also contains binary parameters that are set depending on the ambient language of the learner, hence the different languages that exist in the world.⁵ For instance, the *pro-drop* parameter, which governs whether a language requires the subject position to be filled, leads to different surface structures. The result of this parameter being set negatively is a language like English which requires a subject in a sentence such that *Is raining* is ungrammatical, while *It is raining* is a well-formed utterance. On the other hand, in a language like Chinese where the *pro drop* parameter is set positively the equivalent of *Is raining* is perfectly grammatical. Upon exposure to the ambient language, the parameters will be set to the

⁵ The latest formulation of generative linguistics – the Minimalist Program (Chomsky 1995; 2000), however, differs from the traditional Principles and Parameters approach outlined here. The implications of Minimalism for SLA have not been dealt with widely yet (but see Balcom 2001 and Herschensohn 2000; Park 2004).

appropriate values facilitated by the language faculty.

The observation that linguistic input underdetermines the eventual linguistic competence that a learner develops has also been used as evidence to support the presence of UG (Baker and McCarthy 1981; Hornstein and Lightfoot 1981). In other words learners are able to acquire more than what they are exposed to. For instance, children often come to know which sentences are ungrammatical even though negative evidence (explicit corrections from parents) is not reliably available in the input (White 2003). Proponents of UG use this as indirect evidence to substantiate the presence of a language-specific faculty which must be implicated for learners to be able to learn so much while they are exposed to so little, where at the same time the available input is filled with “ungrammaticality” such as false starts and incomplete utterances. This conceptual argument dubbed as the poverty of stimulus, or the logical problem of acquisition (or as it is also sometimes known, Plato’s problem) is said to be potentially relevant for second language acquisition as well since L2 learners, too, are able to acquire aspects of subtle grammatical properties that are underdetermined by a mixture of input that includes degenerate utterances (e.g. Schwartz and Sprouse 2000 a; b; White 1985; 1989). This - as will be discussed below - has implications for the formulation of different SLA models.

The idea of the existence of UG has long been applied to the study of second language acquisition as well (Cook 1985; 1994; White 1989; 2003). As alluded to earlier in this section, the central debates relevant to SLA focus on the degree of access a second language learner has to UG which seemingly helps to make language acquisition effortless in first language acquisition. Different theories assume different degrees of access to UG (see White 2003; Hawkins 2001a, b). They range from full access to no access. The full access account postulates that L2 learners have full access to UG just

like in first language acquisition (e.g. Epstein, Flynn and Martohardjono 1996; 1998). The evidence that the learners' interlanguage (Selinker 1972) – the intermediate stages of language while learners are progressing – is also rule-governed and falls within the boundaries of natural languages is used to support the proposition that UG is available for L2 learners, at least partially (White 1989). In no access accounts, it is said that learners are no longer able to tap into UG, in which case language learning relies solely on general cognitive abilities (e.g. Bley-Vroman 1988; 1990; 2009). Yet some other models posit partial access to UG via the L1 (Bley-Vroman, Felix and Ioup 1988). Theories also differ with respect to the degree of first language influence on SLA. Various combinations of UG access and L1 influence lead to the formulation of divergent models, e.g. full access, full transfer (Schwartz and Sprouse 1996), or full access, partial transfer (Vainikka and Young-Scholten 1994; 1996a; 1996b). The diverse perspectives imply varying degrees of success in ultimate attainment. Full access theories predict the ultimate state of SLA to be native-like proficiency, whereas fossilisation would be the inevitable corollary in other theories which postulate only partial or no access to UG. These different propositions are also linked directly to the CPH debate with full access theories naturally denying its existence for SLA. These theories are mainly concerned with the acquisition of morphosyntax/syntax as are the empirical studies which set out to test their validity (but see the section below where Optimality Theory is discussed).

While these access and transfer theories are thriving, the issue of input has somehow received less attention though it has a vital role to play in acquisition as discussed above (see Piske and Young-Scholten 2009). This is particularly the case for the acquisition of phonology. The quality and quantity of input indeed has a tremendous impact on second language acquisition as well. Various environments provide a different quality and quantity of input for language learners and hence may have an impact on eventual

attainment (Young-Scholten 1995). Heritage language acquisition is a case in point. In a migration setting, second or third generation speakers often find themselves in the situation of acquiring the dominant language alongside the minority language spoken by the previous generations at home (see Montrul 2008; 2010; Rothman 2009). The complex linguistic settings and differences in individual circumstances mean that the quantity and quality of heritage language input various immigrant groups receive can differ drastically (Pires and Rothman 2009). This leads to wide ranging differences in learning outcomes where in some cases the language is well preserved, and in others the attainment of heritage language speakers is often disparate from a native speaker of that language. For instance, the tense-aspect and mood systems of Spanish heritage speakers in the United States are found to be different from those of native Spanish speakers (Montrul 2009). In other settings there are gradual changes to the linguistic systems down the generations as observed in the gradual change in voice-onset-time among three generations of heritage speakers of Russian, Ukrainian, and Italian in Toronto (Hrycyna, Lapinskaya, Kochetov and Nagy 2011). Without a clear understanding of the nature of input in these settings, it is hard to disentangle “incomplete acquisition” (the fact that heritage speakers do not converge on native speakers’ norms) (Montrul 2008) from the acquisition of a new variety resulting from ongoing changes in that language; that is, the supposedly “native” feature to be acquired is no longer present in the input (Lightfoot 2010; Pires and Rothman 2009; Rothman 2007).

The generative approach is, however, not the only acquisition theory in existence. Connectionism/emergentism and usage-based theories for example are approaches that do away with acquisition mechanisms specific to language (e.g. Bybee and Hopper 2001; MacWhinney 1999; O’Grady 2003; 2007; Tomasello 2000; 2003). Instead, this approach claims that grammatical structures emerge from patterns generalised from the input through general learning mechanisms. Under such a view, input is the necessary

and sufficient condition for acquisition to occur since no other specific construct such as UG has to be assumed. Therefore, frequency in the input is argued to be one of the key determinants of the eventual learning outcome. This approach often finds support from studies that show computer simulations are able to generalise grammatical patterns on the basis of the input alone (e.g. Ellis and Schmidt 1997; 1998).⁶ (See also Hawkins' special issue (2007a) on emergentist and nativist (generativist) perspectives on SLA).

Apart from the debate over the existence of an innate device for language acquisition and the sufficiency of input, whether output is also necessary is another area which has stimulated considerable discussion. Some researchers take the view that output as well as interaction is crucial for acquisition to succeed (e.g. Gass 1997; Long 1980; 1981; 1983; 1996; Swain 1995; 2000). Mackey (1999), for instance, found that learners who engaged in interaction during training subsequently advanced in their ability to form questions while controls who had not participated in interactions failed to do so. This was taken as evidence to support the view that interaction is facilitative to second language acquisition.

2.2 Second Language Phonology

Research into the acquisition of second language (L2) phonology in some ways lags behind the investigation of second language syntax (Young-Scholten 2011). A few models of L2 phonology acquisition have, however, been developed since the late 1990s (see Archibald 2009; Gut 2009; Hannahs and Young-Scholten 1997; Hansen Edwards and Zampini 2008; Leather 1999, *inter alia*). Among them, the Speech Learning Model (SLM) (Flege 1995) and the generative Optimality Theory (OT) (Prince and Smolensky 1993; 2004) have attracted a considerable amount of attention. These models have acted

⁶ See Gregg (2003) for criticisms of the emergentists' account.

as the backbone for the generation of testable hypotheses which in turn yield results that enrich our understanding of the field as shall be seen through the studies reviewed below. One of the main generalisations that can be made through the empirical evidence accumulated from L2 speech research on both perception and production is the fact that the acquisition of various aspects of L2 phonology is possible even by adults given a sufficient amount of exposure to the target language and that learners' ultimate success is mediated by numerous factors including age of onset, length of residence, and formal instruction (Piske, MacKay and Flege 2001).

Yet, very much in line with general SLA theories discussed in the previous section, the nature of input does not figure prominently in these L2 phonology acquisition models. In fact, as will be pointed out later in this section, it is not clear how exposure to and competence in multiple varieties can be reconciled using these models. This is an important issue to resolve since input multiplicity is arguably the norm in today's highly mobile society where the ideal "homogenous" community can hardly be found (cf. Chambers 2002). Parallel to the heritage language acquisition situation discussed in the previous section, the nature of input, in terms of quantity and quality and variability, has a direct bearing on the assessment of acquisition outcome in L2 phonology, as learners are often judged on the basis of monolingual native speaker norms, which is hard to define with the vivid presence of regional variation (Bayley 2000; Bohn and Bongaard 2009; Foulkes and Docherty 2006). In other words, learners' success is not assessed appropriately when the "institution" or "standard" norm reference is used irrespective of the different learning contexts. The lack of studies focusing on input multiplicity is hence one of the major issues that motivates the present study.

The next section will provide a brief historic overview of the development of L2 phonology theorisation with particular emphases on SLM and OT. Studies done in these

two frameworks or that can be interpreted under such models will be discussed.

Outstanding issues emerging from the review will be indicated at the end of the section.

2.2.1 The development of L2 phonology acquisition models

In an early article reviewing linguistic theory and L2 phonological learning, James (1989) wrote the following:

the field has not up till now developed any kind of considered and defined relationship between research into the L2 acquisition of phonology and research into phonological structure in general, a relationship which would be to the benefit of both areas ... The conscious (re-)orientation towards theoretical linguistics as a productive source of insights into acquisition (evident in L2 syntax research, for example) has not yet come about in phonology (James 1989: 371).

He suggested that this lack of theoretical underpinnings was caused by the deliberate departure of L2 researchers from abstract theories developed in the 1970s. Another reason was the false belief that Contrastive Analysis (Lado 1957) (CA) can account for all learner errors. According to the CA approach, language transfer is said to account for and predict all errors. For example, the phonemes that are not part of the speaker's L1 phonemic inventory are assumed to be difficult to acquire. That is to say, when a similar sound exists in a learner's L1, that particular L2 sound is argued to be unproblematic to learn, whereas sounds that do not occur in a person's native language will pose the greatest difficulty for acquisition. However, much subsequent research has found that these claims do not hold up to scrutiny. Not only do we know that transfer does not predict the learner's errors all the time (cf. the concept of interlanguage (Selinker 1972) briefly alluded to in the previous section where learners are argued to have developed linguistic systems that are not "wild" but rule governed though they might diverge from the native speakers' norms), but also that claims which are quite the contrary to that of CA are often found to be true, i.e. the more similar an L1 sound and L2 sound are, the

more challenging it will be for the learner to acquire the sound in question and vice versa (e.g. the acquisition of Zulu clicks as mentioned in the introduction (Best, McRoberts and Sithole 1988)).

Beyond the CA from Lado's era, we have seen a rise in modelling of the study of L2 speech with varying emphases on transfer and gradual development according to universal guiding principles as L2 learners progress, for instance, the Perceptual Assimilation Model (Best 1995), the Speech Learning Model (Flege 1995), the Markedness Differential Hypothesis (Eckman 1977; 1991), Ontogeny and Phylogeny Model of second language phonology (Major 2001), and Optimality Theory (Prince and Smolensky 1993; 2004). In line with studies of morphosyntax acquisition in SLA discussed previously, the research agenda of second language phonology research revolves around questions such as *Are learners affected by the purported CPH? How successful can learners be at attaining a native-like phonology? How much of a role does L1 play in affecting L2 (phonology) acquisition? Will the linguistic (phonological) system change as a function of exposure to the target input?* (cf. Juffs 2011).

The following paragraphs explicate two of the existing models of second language speech learning that have stimulated research directly validating claims and hypotheses made by them. They are the Speech Learning Model (SLM) and Optimality Theory (OT), both of which have generated research that deepens our understanding of second language phonology (Archibald 2009, Bohn and Munro 2007; Leather 1999; Strange and Shafer 2008). But as shall be seen shortly, the issue of input remains largely unresolved in these theoretical frameworks. Moreover, social and affective factors are not worked into these models sufficiently to reflect their importance in influencing learners' use and eventual attainment.

2.2.1.1 Speech Learning Model (SLM)

The Speech Learning Model (SLM), which has generated plentiful research on L2 speech perception and production since its inception, is one of the models that have been widely followed and tested. SLM, in contrast with CA, posits that acquisition is possible when the target L2 sound differs from any L1 sound (Flege 1995). The greater the difference between an L2 sound and its closest equivalent in the learner's L1, the greater the chance that such a sound can be acquired. Sounds that are similar in the first and second language are prone to misclassification and misperception such that they are misperceived as the same sound. This in turn prohibits the establishment of the L2 sound as a separate phonological category hence leading to a failure in acquisition. Another crucial postulation put forward by this model is that "the mechanism and processes used in learning the L1 sound system, including category formation, remain intact over the life span, and can be applied to L2 learning" (Flege 1995: 239). That is to say the acquisition of a native-like second language phonology regardless of the learner's age is possible in principle given a sufficient amount of exposure. This incidentally accords with the belief of many L2 phonology researchers (e.g. Flege 2003; Munro, Derwing and Flege 1999; Strange 1995; Strange and Shafer 2008; Wode 1994; 2009; Young-Scholten 1994). That said, the eventual attainment is circumscribed by the degree of first language influence (as the foundation of misperception of L2 sounds) and mediated by learners' experience as defined by their exposure to target input.

The study by Flege, Munro and Fox (1994) provides support for claims made by the SLM. Flege et al.'s study tests the categorical vowels discrimination of adult native English and native Spanish speakers, who are divided according to their relative experience with English. The Spanish /a/ is aligned with six different English vowels, /i/, /ɪ/, /eɪ/, /ɛ/, /æ/, /ʌ/, and participants in the study had to decide whether or not the two

sounds belonged to distinct categories. It was found that although the Spanish speakers of English do not have trouble with tokens testing the pairing of Spanish /a/ with English /i/, /I/, /eI/, they performed significantly worse than the native English speakers in triads which targeted the differentiation of Spanish /a/ and /ɑ/. However, only the relatively inexperienced group performed significantly differently from the English group in /a/-/ε/, and /a/-/æ/. These results are taken to mean that Spanish speakers of English are able to distinguish Spanish and English vowels that are distant from each other in the vowel space (e.g. Spanish /a/ and English /i/, /I/, /eI/), but are less able to do so with vowels that are closer to each other (i.e. Spanish /a/ and English /ɑ/). They also show that experience with the target language plays a role in helping to establish categories that do not exist in one's native language (e.g. experienced learners' success with English /ε/, and /æ/ which are not present in Spanish).

Another perception study by Flege and MacKay (2004) targeting adult Italian learners of L2 English yields similar results. Italian learners of English have problems distinguishing L2 English vowels because their native language lacks certain vowels that are present in English. Standard Italian contains fewer contrastive vowels (i, e, ε, a, o, o, u) compared to English. This according to SLM will contribute possible difficulties as they provide the ground for misperception of sounds that are similar to the native Italian categories such as /ɒ/, /ʌ/, /æ/. Flege and MacKay's study focuses on learners' discriminatory ability in English vowel pairs /ɒ/-/ʌ/, /ε/-/æ/, and /i/-/I/. In a series of discrimination and identification tasks these learners were tested for their ability to identify the English sound pairs. It was found that they had problems with the stated vowel pairs because they often identified them as being the same sound (i.e. a single

Italian vowel). On the other hand, in two follow-up experiments, it was found that early learners obtained higher discrimination scores than learners who started later.

Furthermore, participants who reported less L1-use scored more highly in the tasks. All of the informants, however, performed better than the native Italian controls. Most important of all is the fact that early low L1-use learners alongside some late learners did not differ significantly from native English speakers. These results are viewed as evidence to support SLM, though they also point to the confounding nature of age and L1 use which, in turn, affects the nature and quality of input one obtains.

These two studies along with others such as Flege and Liu (2001) on the acquisition of word final consonants by Chinese adult immigrants in the US, and Frieda and Nozawa (2007) on adult Japanese and Korean speakers acquiring novel L2 English vowels, provide empirical support to the claims of SLM, namely that L1 phonemic categories affect L2 perception, and that learners are able to progress in their acquisition of L2 sounds when they are exposed to a sufficient amount of input. One of the starting points of the Speech Learning Model, however, is that “bilinguals cannot separate their L1 and L2 phonetic subsystem” (Flege 2003: 326).⁷ In other words, though adequate exposure to the target language facilitates second language speech acquisition as can be seen from the studies reviewed above, an end state that is identical with monolingual native speakers is unachievable. This is supported by research which shows that even highly proficient L2 speakers remain deviant from monolingual native speakers. For example, bilinguals are found to have a compromised voice onset time (VOT) in their L2 speech production as compared to native speakers (e.g. Flege 1987a; b; 1991; Flege and Eefting 1987; Flege and Hillenbrand 1984; Hazan and Boulakia 1993; Thornburgh and Ryalls 1998). It is crucial to point out that the comparison is made between bilinguals and

⁷ It is worth noting that ‘phonetic’ is not used as a contrastive term with ‘phonology’ in the conventional sense here.

monolingual native speakers, since the compromised VOT does not only apply to speakers' second language, it is in fact observed in speakers' first language as well (Flege 1987a; b; Major 1992).⁸ That is to say, the native language of bilinguals is potentially qualitatively different from monolingual speakers of the same language. However, the validity of such a claim is subject to further research. Moreover, whether these minute acoustic or phonetic discrepancies between the native language of bilinguals and monolinguals observed using acoustic measurements are, in fact, perceived by listeners in spontaneous conversation is also subject to empirical testing (Hyltenstam and Abrahamsson 2000; Munro 2008: 200).

2.2.1.2 Optimality Theory (OT)

Conversely, Optimality Theory (OT) (Kager 1999; McCarthy 2002; 2003; 2008; Prince and Smolensky 1993; 2004) as an alternative model of phonology which has been applied to the study of second language phonology recently (e.g. Broselow 2004; Broselow, Chen, and Wang 1998; Hancin-Bhatt 2000; 2008; Hancin-Bhatt and Bhatt 1997; Lombardi 2003) does not make the assertion of qualitative differences between learners' L1 and L2. Instead it takes the basic assumption of the traditional generative approach to linguistics which underlines the universal nature of languages across the world. In OT, languages are said to share a universal set of constraints which fall into three main categories, *Markedness*, *Faithfulness*, and *Alignment*. Markedness constraints deal with the structural configuration of languages in relation to universal tendencies that are observed in languages across the world. For instance, NoCoda as a markedness constraint expresses the general tendency for languages to favour syllables without codas. Faithfulness constraints have to do with whether the output is faithful to

⁸ This also links to the concept of multicompetence (Cook 2002; 2003), and the justifiability of viewing multilinguals in monolingual terms.

the input with regard to deletions or insertions, for instance the output [aʊtə] as opposed to [aʊt] will be less faithful to the input of the word *out*. IdentIO is one of the faithfulness constraints that ensure the output matches the input. Alignment constraints concern the structural alignment between various linguistic units such as the stem of a word and the affix. Align(stem R, affix L), as an example of an alignment constraint, prescribes that the left edge of an affix aligns with the right edge of the stem, e.g. the plural *-s* follows the end of the stem *dog*, hence forming *dogs*. A vital departure from the traditional derivational account of generative phonology is that these constraints in OT, unlike rules in derivational phonology, are violable.

In spite of the universality of constraints, languages do differ with respect to the ordering of these constraints. Constraints are ranked differently in different languages and hence the importance of each constraint varies according to its rank in the particular language. Consequently, this results in different characteristics of languages. The devoicing of final consonants is a case in point (see Lombardi 1999); although both English and German contain the constraint NoVoiceCoda, which prohibits voiced elements in the coda position, the effect of this constraint can only be seen in German where final consonants are always devoiced. This is due to the difference in the constraint ranking between the two languages; while NoVoiceCoda is ranked highly in German, it is of a lower rank in English hence a violation of it would not contribute to a fatal violation. Therefore, while German final consonants always surface as their devoiced counterparts, English allows both voiced and voiceless segments in coda positions. Of course, this account is a rather simplified view. The choice of the optimal candidate depends on the interaction with other constraints in place in actuality. For instance, it is the relatively high ranking that NoVoiceCoda has over IdentIO that facilitates the devoiced candidate to surface as the output in German.

The selection of the optimal output is done by mechanisms built into the grammar in OT, the core units of which include *Gen* and *Eval* in addition to the various constraints. Input is fed into *Gen* to generate in theory an infinite amount of possible candidates. This set of candidates will then be evaluated by *Eval* according to the language-specific constraint ranking. The output chosen will essentially be a candidate that is deemed optimal after considering its suitability against the numerous ranked constraints. The optimal candidate might not be the one which violates the least number of constraints, but decisively it will be the one which does not violate the highly ranked constraint(s) which have a higher importance (therefore are more costly to violate) in the language in question. Thus, *dog* in English for example can surface as [dɒg] even though it violates the NoVoiceCoda constraint which is ranked lower than the faithfulness constraint IdentIO.

In terms of SLA, the task for the learner is to re-rank the constraints into the order that conforms to that of the target language. This is triggered by the incompatibility of learners' current L1 ranking with the L2 data they encounter. The implication of this learning algorithm is that second language learners come to the learning situation with a pre-established constraint ranking, that of their L1 (see footnote 10). Moreover, there is no barrier from achieving an end state that is identical with native speakers' grammar given sufficient amount of input, which allows the complete re-ordering of constraints, since all the constraints necessary for acquisition are assumed to remain intact throughout the lifespan. In fact, Hancin-Bhatt (2000; 2008) points out that these implications of OT resemble the foundations of the full transfer and full access theory (Schwartz and Sprouse 1996) which hypothesises that the L2 initial state of grammar is the learners' L1 grammar, and upon exposure to target input the grammar will be

restructured to the L2 value facilitated by full access to Universal Grammar in manners no different from first language acquisition. OT hence differs from SLM in that an L2 phonology identical to native speakers' phonology is a possible end-state, noting that SLM assumes an L2 phonological outcome will be different from monolingual native speakers' regardless of how native-like learners are. Whether a native end-state is possible for L2 learners in OT terms is again subject to further testing which requires a longitudinal design so that the potential restructuring of constraint rankings can be better captured (Hancin-Bhatt 2008; Young-Scholten 2011).⁹

Yet, instead of waiting for total success in the sense of constraints being re-ranked to a state completely in line with native speakers, another way of testing the validity of the claims made by SLA researchers using OT, at least partially, is to observe whether there are signs of constraint re-ranking. This is indeed what a number of recent studies have reported. Making use of data from Wang (1995), Broselow, Chen and Wang (1998) found that adult Mandarin learners of L2 English produced forms that are not “motivated by either native- or the target- language grammar” (1998: 261). Mandarin Chinese has a strict restriction regarding what consonants can occur word finally; as a matter of fact, only glides and nasals are found in codas of Mandarin (Cheng 1966). Conversely, English allows an array of sonorants and obstruents of both voicing configurations (Archibald 2009; Davenport and Hannahs 2010). These Mandarin learners are found to employ deletion, epenthesis, and devoicing as strategies to cope with the various voiced English coda consonants. The authors argue that these result

⁹ Moreover, whether learners have acquired the appropriate fine details in phonetic implementation of the L2 is another issue worth investigating. For instance, an American English learner of L2 German could have acquired the appropriate constraint ranking for final-devoicing, but his/her production could still remain deviant from native Germans in the sense that their production of the final stop could be unreleased (similar to American English) as opposed to the released voiceless stops that native Germans produce.

from the partial re-ranking of markedness constraints to a higher position than the L1 ranking. Yet, this new ranking is still different from the L2 target. The case of final devoicing can be used to illustrate their point here. Broselow and colleagues argue that the effect of NoVoiceCoda, which highlights the universal tendency of languages to prefer voiceless over voiced codas, is allowed to manifest itself due to constraint restructuring in the developmental process of the L2 learner. This emergence of the unmarked, which is otherwise masked in both the L1 and L2, is taken as an indication that OT grammar is at work (i.e. constraint re-ranking is in process). These data are discussed further in light of the development of Stochastic OT (Boersma and Hayes 2001) in Broselow (2004), but the core idea that these data reveal constraint re-ranking remains the same.

Lombardi (2003) also found OT a useful framework to account for the long known fact related to interdental fricative substitutions. Learners are known to substitute English interdental fricatives /θ, ð/ with either [s] or [t] (e.g. Altenberg and Vago 1987; Lado 1957; Ritchie 1968; Schmidt 1987). For example, Thai, Russian, and Hungarian learners of English substitute [t] for the target /θ, ð/, while [s] is used by Japanese, German, and Egyptian Arabic speakers of English. In other words, the choice of the substitution seems to depend on the learner's language background even though all their L1s contain both segments [t] and [s]. Lombardi explains this difference with respect to the differences in learners' constraint ranking. In cases where [t] is chosen to substitute for /θ, ð/, the markedness constraint which conspires against the surfacing of interdental fricatives, along with the markedness constraints which deem fricatives more marked than stops continues to dominate the faithfulness constraint IdentManner, which ensures the identity of input and output with respect to manner features. Therefore, the /θ, ð/

fails to surface, and since fricatives are more marked than stops, the latter is selected as the optimal candidate for the substitution. Learners who substitute /θ, ð/ with [s] have re-ranked the faithfulness constraint over the markedness constraint governing fricatives and stops, yet the constraint against the occurrence of [θ, ð] remains dominant in this new ranking. Thus, substitution persists though in a different form from learners who have not yet started to re-rank their constraint hierarchy in accordance with the L2. Lombardi further exemplifies this idea with Japanese and Thai learners of English, the former learners who substitute [s] for /θ, ð/ are claimed to be undergoing some re-ranking, while Thai learners' grammars are "using the initial state supplied by UG: Markedness above Faithfulness and unitary IdentManner" (Lombardi 2003: 246).¹⁰

Though OT "was not proposed to account for L2 acquisition" (Hancin-Bhatt 2008:132), the above accounts of Broselow et al. and Lombardi illustrate that analyses using the OT framework do fit well with trends/data observed in L2 speech learning.

2.2.2 Section summary and outstanding issues

The literature reviewed above made it clear that acquisition is possible throughout the lifespan given a sufficient amount of exposure to the target input; of particular relevance to the present study is that the acquisition of a second language phonology is possible even for adults, though the ultimate success of such acquisition is mediated by the experience they have with the input and the influence of the first language. Various models assume different degrees of L1 influence with SLM claiming that the L2 phonology of bilinguals remains different from that of monolingual native speakers

¹⁰ This assumption about the initial state is slightly different from Hancin-Bhatt's (2000; 2008) proposal which assumes the initial state of L2 learners to be their L1 grammar (please refer to McCarthy 2002 for a more detailed analysis).

because the nature of their phonological representations are different, while in OT, an end-state identical to a native speaker's is possible in theory. These findings and claims find support from the various studies reviewed above, and other works which are not mentioned due to the preclusion by space also provide support for the possible success in acquisition of a second language phonology by both youngsters and adults in all realms of phonology (production and perception) including segmental phonology (e.g. Flege and Liu 2001; Wode 2009), suprasegmental phonology (e.g. Young-Scholten 1994, Young-Scholten and Archibald 2000), and global accent (e.g. Bongaerts 1999; Bongaerts et al. 2000; Ioup et al. 1994). The fact that learners of different L1 backgrounds, e.g. Chinese, Dutch, or English speakers learning various languages such as English, German, or French are all able to achieve certain degrees of success in their L2 phonologies is evidence against the strong version of CPH.

Nonetheless, these studies have all implicitly assumed the target language to be a monolithic entity representing one and only one norm reference. That is to say, when learners are exposed to the target input, the target input is assumed to represent only one variety of the target language, which is often the standard or institutional variety that is taught in school. However, less is currently known about what happens when learners are exposed to more than one variety of the target language, i.e. when the input represents different varieties of the target language (Leather 2003). A study by Fox and McGory (2007), which looks at a second language dialect that is different from the institutional variety, is among the few exceptions that do not take the assumption of uniform input. They look at the acquisition of regional dialects of American English by Japanese learners living in Ohio and Alabama. Fox and McGory claim that the vowel production and perception experiments provide “little or no support for the claim that native Japanese speakers living in Alabama are acquiring the local, nonstandard dialect of American English” (2007: 134). The authors hinted at the relevance of sociolinguistic

factors, which their study did not address, in accounting for the similar performance between the two groups of learners whose L2 English phonological systems largely resembled the standard American dialect. This study rightly highlights the complexity involved when multiple varieties are indeed taken into consideration.¹¹ In fact, it is not clear how the various L2 phonology theories cope with situations where multiple varieties are present. Do the various varieties lead to the formation of various grammars that are closely related to each other? Do these various varieties contribute to the same core grammar of the language in question instead?¹² As a direct consequence of the implicit assumption that input represents one single target, it is hard to see how these questions can be reconciled in the current formulation of the models reviewed.

Therefore, one of the main goals this doctoral study aims to achieve is to establish what

¹¹ Further details of the study will be provided in the following section.

¹² For example, one of the key constructs in OT, Lexicon Optimisation (Prince and Smolensky 1993) does not seem to be able to cope with input multiplicity. Lexicon Optimisation postulates that in the absence of counter-evidence the input (meaning underlying representation in here) is assumed to be identical to the output (the phonetic form). This is grounded in the economy given from the maximum faithfulness of input-output correspondence; this strategy seems to work fine when the linguistic data is unambiguous, as learners will be able to deduce the appropriate constraint ranking when they are exposed to sufficient amount of linguistic data hence acquiring the phonology in question. However, it is not immediately obvious how this strategy would work in the face of multiple varieties; for instance, do learners actually triangulate from the various surface forms to infer one phonological input for all the various varieties or do they form separate ‘phonologies’ governed by different constraint rankings resulting in different surface instantiations? One possible solution is to borrow the idea of an outright abandonment of underlying representations as suggested by Yip (1995), but one would be forced to claim that different varieties of the same language have different phonologies as a corollary since the fact that they differ in their surface realisations should be taken as the reflection of a difference in constraint ranking. In fact, insights from more recent discussions on variations and microvariations in cross-linguistic variations (Hale, Kissock, and Reiss 2007) also seem to fall short in tackling the current situation where the realisation of the Filipino variety seems to be drastically different from the other varieties in question (see chapter 4 for more details). If we regard the differences between the Filipino variety and the rest as a kind of variation (in Hale et al.’s terminology) that originates from phonology, we would run into the same problem as previously stated, namely, we will be again forced into claiming that various varieties have a different phonological system. This conceptual debate, though fascinating, falls beyond the scope of this dissertation, hence it will be left for future research instead.

actually happens when multiple L2 varieties exist in the input. Related closely to that is to explore the nature of learners' phonological acquisition of the given L2 varieties present in the Hong Kong context (i.e. the four varieties that the study investigates, namely Filipino English, Hong Kong English, British English and American English). Whether the predictions made by L2 phonology acquisition models can be applied in these situations where more than one variety is present in the input is another key area of interest that this study aims to address.

In addition, the majority of SLA studies have focused on the older population (cf. De Houwer 2009; Philp, Oliver, and Mackey 2008; Pinter 2011). This is also true for the studies of L2 phonology as can be seen through the samples in the studies reviewed above. In particular, children who are in their early acquisition stages have not been investigated substantially (Baker, Trofimovich, Flege, Mack, and Halter 2008).¹³ In view of that, this study targets a younger group of participants who are in their third year at the pre-school/kindergarten stage as well as early teens who are in their first year of secondary studies.

Another issue that remains largely untouched concerns the contribution of social and affective factors on L2 speech learning. The underdevelopment of research pertaining to social factors in the learning of speech (cf. Hansen Edwards 2006; 2008), and more generally language acquisition, is an unfortunate state of affairs as the few increasingly available works do point to the possibility of acquisition outcomes being affected by the context that learners are immersed in (Howard 2011; Trofimovich 2011). The various learning situations in combination with social contexts can lead to subtle variations in quantity and quality of input which, in turn, lead to diverse (second) acquisition

¹³ Though it has to be said that studies targeting the "age factor" have indeed included investigations of children who have had a considerable amount of exposure to the target input.

outcomes (Piske and Young-Scholten 2009). In addition to determining the quantity and quality input, social factors may have a role to play in affecting the nature of acquisition as well (see e.g. Barkhuizen 2004; Bayley 2000; Tarone 2000; Young 1999 and the various models mentioned in the introductory chapter). For example, whether a socio-psycho barrier would hinder acquisition despite the availability of input is a possible line of investigation that has not been seriously pursued (but see Schumann (1978; 1986) who postulates that learners' proficiency is controlled by the degree to which they acculturate to the target-language group). As a matter of fact, social factors often interact with input in a way that acts as a gate with respect to the amount and quality of input that learners obtain (e.g. Moyer 2007; Trofimovich 2011).

Furthermore, it is a known fact from sociolinguistic studies that social factors affect language use (e.g. the fact that preferring the (-*ing*) over the (-*in*) variable is a marker of indexicality (Labov 2006b)). Yet, studies of the interface between L2 speech and social factors remain few and far between despite the growing interest in the field of sociophonetics (see Foulkes and Docherty 2006; Labov 2006a; Preston and Niedzielski 2010). A comprehensive account of (second) language acquisition is not possible without integrating the linguistic (cognitive) and social aspects of acquisition (Cook 2010; Ellis 2010; Myles 2010) which is a point reiterated by a number of scholars who advocate a socio-cognitive approach to the study of language acquisition which looks at both social and cognitive issues (Atkinson 2010; Batstone 2010 a; b; Larsen-Freeman 2010; Tarone 2010, *inter alia*). It is for these reasons that the current study sets out to explore L2 phonology learning under the influence of input multiplicity and its interface with social factors.

2.3 (Second) Dialect Acquisition

Although sociolinguistic inquiries on dialectology, dialect contact and language change

(e.g. Corrigan 2010; Kerswill 1994; 2002; Kerswill and Williams 2002; Roberts 1997a; b; Roberts and Labov 1995; Tagliamonte and Molfenter 2007; Trudgill 1986; Villeneuve 2011; Wilson 2011) have been in existence for a long time, the foci of them have mainly been on language use. The acquisition perspective, which is related to these dialectal studies on one hand and to SLA on the other, is a research area that is far less developed (Finegan and Biber 2001; Siegel 2010). The study of (second) dialect acquisition ((S)DA) is an interesting line of investigation for its close symmetry with the study of SLA (Rys 2007; Siegel 2010). Both SDA and SLA involve learners acquiring a new code, yet, those target codes that SDA learners are aiming for are often, though not necessarily always, related to their first dialect. But it is also noteworthy that some of the time dialects are not necessarily defined purely on linguistic terms (Chambers and Trudgill 2004). For instance, while Mandarin and Cantonese are considered dialects of each other by the Chinese government, they are not mutually intelligible, with various differences in lexis, tones and syntactic structure. Therefore, acquiring a second dialect in such a situation would be closer to acquiring a second language. The opposite situation can also be true as in the case of many Scandinavian languages such as Danish, Swedish and Norwegian, where they are considered separate languages even with their high degree of mutual intelligibility. SDA is especially prevalent when temporary or permanent migration is involved which causes learners to be exposed to a different dialect (e.g. Chambers 1992; Mackey, Trester, Shah, and Tagarelli 2011; Payne 1980) – a scenario which is becoming ever more common in the age of “unprecedented geographic mobility” (Chambers 2002: 117). Moreover, SDA situations also arise in educational settings where the mainstream institutional dialect differs from the learner’s dialect (e.g. Fairclough 2005; Issacs 1996; Price 1993). However, it is unfortunate that relatively little work has been done on SDA at the time of writing and “what has been done is not widely known” (Siegel 2010: 2). This is partly due to the misconception or false belief that SDA is just another kind of SLA which deserves no special attention.

The apparent similarities between the speaker's first dialect and the target dialect were thought to be facilitative to acquisition and, hence, the acquisition of a new dialect was believed to be an unproblematic and therefore somewhat uninteresting acquisition situation (see Escure 1997). This delusion, of course, has no scientific merit. Indeed, research has shown that second dialect acquisition is anything but straightforward, although the study of SDA is only slowly gaining momentum with recent work by Chambers (1992; 2002), Nycz (2011), Rys (2007), and Siegel (2010). While L2 phonology studies reviewed above suggest that given exposure to the target L2 prior to puberty, success is more or less guaranteed, the situation is less clear in the case of second dialect acquisition. This section will outline seminal studies pertaining to the field of dialect studies. It will begin by laying out the principles of dialect acquisition given by Chambers (1992). Various studies done on dialect acquisition will be reviewed. It will also be pointed out that the majority of these studies have focused solely on production data; learners' acquisition of perceptual systems is rarely considered. In unison with the previous section, this part will end by highlighting the outstanding issues that motivate the present PhD study.

2.3.1 Principles of dialect acquisition

Given the nascent nature of the field of SDA, it is still developing basic tenets including a widely accepted model of the processes of acquisition in this context (e.g. Berthele 2002; Chambers 1992; Trudgill 1986). Much of the current SDA work relies on existing theoretical frameworks of the generative or emergentist traditions (e.g. Rys 2007; Nycz 2011), while some others have evaded the need to theorise by limiting themselves to looking at a very limited set of variables, such as final */-t, d/* deletion (e.g. Roberts 1997a), the realisation of post-vocalic-R (e.g. Starks and Bayard 2002), and the acquisition of *short-a* (e.g. Roberts and Labov 1995). Yet, others have depended on

retrospective comments from learners without longitudinal empirical data (see Stanford 2008; Wilson 2011). Although using SDA data to test hypotheses made by generative and emergentist accounts is legitimate and research-worthy in its own way, it is also important not to equate SDA with SLA for they differ in subtle respects (Siegel 2010). In fact, initial efforts to distinguish the two have been made by Chambers (1992), who has laid out eight principles of dialect acquisition that can be empirically tested, to outline a feasible framework for investigating SDA independent of SLA. It is to this model that we shall turn shortly. But before doing so, it is worth noting that although Trudgill's (1986) work on dialect contact does provide some implications for the study of SDA as well, it will not be discussed in detail in this section for circularity issues inherent to the model (see e.g. Hinskens 1996; Kerswill 1994; Kerswill and Williams 2002: 88–91). Trudgill's model is based largely on the observation that dialect contact can lead to linguistic convergence or divergence, where dialects grow to become similar in the first situation, while they grow apart in the latter. In the case of accommodation/convergence, it can be short term where interlocutors converge with each other during a communicative exchange, but it can also be long term where dialects of respective speakers actually become more similar. Saliency is argued to be the driving force of such convergence or divergence. However, the fact that saliency is used to explain both the adoption and non-adoption of the same linguistic feature, American English /æ/, by British popular music singers and the British general public makes such an explanation doubtful if not circular.

Through studying six Canadian children aged 9 to 15 who moved to the United Kingdom between 1983-4, Chambers (1992) lays out eight principles of dialect acquisition with the support of the data he obtained from his young informants. He claims that “lexical replacements are acquired faster than pronunciations and

phonological variants” (1992: 677). This means that vocabulary items are picked up more quickly than variants that involve phonetic or phonological differentiation. Closely related to this proposal, the second principle states that lexical replacements happen rapidly in the earliest stages of acquisition but eventually slow down (ibid.: 680). The third pertains to phonology and suggests that simple phonological rules are thought to progress faster than complex ones (ibid.: 682). By that, Chambers argues that phonological rules that allow no exceptions are acquired faster than more opaque ones. Principle four proposes that early learners will have greater success at acquiring complex rules and new phonemes as compared to late acquirers (ibid.: 687). The fifth principle states that the variability observed in the early stages of acquisition is caused by both categorical and variable rules of the new dialect (ibid.: 691). Principle six accommodates the fact that phonological innovations appear to be “actuated by the acquisition of particular instances of the new rule or phoneme, and they only become rule-governed or systematic (if ever, in the first generation) after a critical mass of instances has been acquired” (ibid.: 693). This explains the idiosyncratic pronunciations or usage of dialect variants which are sometimes limited to certain linguistic items. The seventh principle maintains that old rules are eliminated faster than new ones are acquired (ibid.: 695). Finally, the last principle states that “orthographically distinct variants are acquired faster than orthographically obscure ones” (ibid.: 697). These principles parallel some beliefs shared in the field of SLA: in particular, the relevance of age in relation to a learner’s success in his/her acquisition (principle four), and the prevalence of variability (principles five and six). It is worthwhile observing, however, that Chambers’ principles do not imply a strong version of CPH whereby learners are unable to acquire a new dialect beyond a certain age. In fact, as we shall see below, a number of studies have shown that learners of very different age ranges all have some degree of success in their acquisition of a second dialect.

Despite the fact that these principles provide the basis for empirical investigations, only a handful of SDA studies have deliberately set out to test some of these claims (e.g. Tagliamonte and Molfenter 2007; Wilson 2011). Nevertheless, some of the findings in older studies can be reinterpreted in light of these principles. One of the earliest SDA studies, by Payne (1980), can be used to illustrate this point. It investigates the acquisition of Philadelphian English variants by 12 families who moved to King of Prussia, a town in suburban Philadelphia. Data for the study was collected from 27 children who moved there when they were between the ages of 2 and 13. Payne also collected data from seven other children who were born in King of Prussia but whose families did not originate there so that the home environment exposed the children to dialectal variants that were not native to King of Prussia. This second group of informants were aged between 8 and 20 at the time of data collection. The data collected through interviews reveals that substitutions involving simple phonological rules (e.g. the substitution of [u] for [o] in diphthongs [oi]; the centralising of /a/ to [ʌ] in diphthong /ai/ when followed by voiceless consonants) are acquired with greater ease than features that are governed by a more complex phonological rule such as the split of *short-a* to *tense-a* or *lax -a* (1980: 156-175), and that the tendency to acquire various Philadelphian variants generally declined as a function of age. But it was also found that the acquisition process was highly variable and this held true even for the youngest group of participants who migrated to Philadelphia between the ages of 2 and 4. These results can be seen to support Chambers' principles that relate to the phonological and age aspects of SDA, in particular principles three to six which concern the complexity of phonological rules involved in the acquisition process.

Likewise, Rys' (2007) large-scale study of the acquisition by standard Dutch speakers of the Maldegem dialect of Dutch spoken in the northwest of the province of East-Flanders

highlights the variability that can be observed in children's SDA. Among the 164 school-aged children in this study (divided into three groups of ages 9, 12, and 15) considerable variation was observed with respect to the ten lexical and 24 phonological dialect variants in question with an average of 27.7% adoption rate for the second dialect (D2) lexical features, and with the average for the D2 phonological variants being 45.2% (Rys 2007: 228-33). These findings are related to learners' exposure to the dialect in terms of type and token frequencies, as well as the complexity of the phonological mechanism governing the use of the D2 variant. Rys concludes that the guiding factors of SDA resemble those of SLA, once again underscoring the close relationship between the two fields.

In yet another setting, Nycz (2011) investigated the acquisition of New York English by 17 speakers who emigrated from various places in Canada to New York as adults. Through analysing speech data obtained via interviews, it was found that these speakers tended to retain features distinctive of the Canadian dialect, namely, the merger of (ɔ/ɑ) and Canadian /aʊ/ raising in salient words such as *about* and *out*. In certain cases, this was so even after prolonged residence in the United States. She adds, however, that "there is also ample evidence that these speakers have been phonetically affected in their production of both of these features by their residence in the New York region and exposure to local speakers" (Nycz 2011: 196). This can be seen through the small but significant phonetic differences in their vowel qualities (ɔ/ɑ) revealed through acoustic analyses. In other words, there are signs of acquisition despite the continued manifestation of typical Canadian English features. Nycz seeks a social explanation for this observation by claiming that prominent features such as /aʊ/ raising in certain lexical items act as social labels to index speakers' Canadian identity, which she argues

was triggered by the topic that the participants were engaged in during the interview: “conversation about growing up in Canada, moving to the U.S. and living there as an expatriate, aspects of Canadian speech versus local American speech, and other topics surrounding being Canadian in a new country” (2011: 199). These topics arguably bring participants’ Canadian identity into focus; it would hence be interesting to see if the Canadian features in these informants’ speech become less prominent when the identity issue does not take a centre stage in follow up studies.

2.3.2 Section summary and outstanding issues

All the above studies point to a complex picture of SDA. Although in many respects it is a similar phenomenon to SLA, the acquisition of dialectal variants by speakers of a given language seems to be possible throughout the lifespan. There is, however, a high degree of variability. One explanation for the variability is that certain features that are characterised by more complex rules seem to be harder to acquire, e.g. the categorical substitution of [u] for [o] in diphthongs [oI] being easier than the split of *short-a* in Philadelphian English. Variation in outcomes can also be explained by the complexity involved in acquiring sociolinguistic variations (variable rules)/sociolinguistic conditioning that are mediated by factors such as style or gender, (e.g. realisation of *-ing* in Meyerhoff and Schleeff 2012; word medial *T*-voicing in Tagliamonte and Molfenter 2007).

In the vast majority of these studies, conclusions rely on production data. This is perhaps not too surprising given the sociolinguistic orientation of this field of study where production is seen to be the key indicator of a speaker having acquired a certain feature in question. Thus, the evidence on which Chambers’ principles are based was entirely of this kind and perception is not investigated at all in his research. However, as is known from studies in the SLA tradition, perceptual knowledge can, in fact, exist

without active production (see Hendriks and Koster's special issue on asymmetries in language acquisition, 2010). That is to say, there are learners who might have acquired a certain aspect of a language (or dialect for our purposes) perceptually without actively producing it. It is hence necessary for us to explore learners' perceptions in addition to their production so as to better understand acquisition as a whole. The lack of integration of production and perception is also prevalent in the studies of L2 speech as evident from the comprehensive review of the L2 speech studies published over 39 years in 16 international journals (Gut 2009). Gut's review uncovers a mere 29 studies which "describe the perceptual abilities of non-native speakers or focus on the relationship between perception and production" (2009:40), indicating a pressing need for studies that take into account both aspects of L2 phonology acquisition. In fact, the study of speech production and speech perception "has progressed more or less independently for more than 60 years" (Casserly and Pisoni 2010) in general. The current study, which therefore examines the two processes in tandem, aims to fill the gap by looking beyond production which only provides a partial view of learners' acquisition.

In addition to focusing only on production data, existing studies have mainly been about the acquisition of the community/majority dialect, for instance, the dialect of the area to which the learners migrate, or the standard dialect in the institutional SDA situations. Not much is known about what occurs when the dialect to be acquired differs from both the community norm and the institutional standard. In spite of that, minority language preservation and heritage language studies can shed some light on the matter (e.g. Caldas 2007; Caldas and Caron-Caldas 2002; De Houwer 2007; Montrul 2008; 2010; Rothman 2007; 2009). The present study examining the acquisition of Filipino English by Cantonese speaking children in the context of Hong Kong represents an effort to add to our understanding of SDA/SLA when the target code is neither the community norm

(i.e. Hong Kong English) nor the standard (i.e. British or American English).

At this stage it is appropriate to pick up on a point that was mentioned in section 2.2.2 about the scarcity of studies investigating SLA with multiple varieties as the target input. This line of inquiry when compared to studies pertaining to dialect acquisition (of a first language) is even more under-researched. Yet, the majority of second language learners are likely to come across a wide array of input during the process of acquisition, be it brought about by a physical relocation or a change of teacher during the course of learning, so it is eminently worthy of investigation. It was already noted that the study by Fox and McGory (2007) is among the very few exceptions that try to grapple with the issue of multiple varieties in SLA, and more details about the studies shall now be reviewed.

Fox and McGory (2007) set out to test claims made by SLM by investigating the L2 English of learners who moved to a dialect-speaking area in America which has different spoken features than those taught in the learners' home country. They looked at the production and perception of English vowels by 20 L1 Japanese/L2 English speakers residing in Alabama (ten speakers) and Ohio (ten speakers). All of them had started learning English at around the age of 13 in middle school in Japan, where the target model was standard American English (SAE), and had moved to the United States as adults. English in Alabama, which is classified as belonging to Southern American English, is a regional dialect which is distinctive in numerous ways from SAE, while Ohio English is argued to be more similar to the latter. Acoustic measures suggest that both groups of users produced vowels that were, in fact, closer to SAE irrespective of their current place of residence (i.e. Alabama or Ohio). Moreover, living in Alabama did not seem to have helped learners' perceptions of the divergent Southern American English vowel system either. The authors point out that the results seem to contradict

the predictions made by SLM and instead suggest that sociolinguistic factors including attitudes towards non-standard dialects of American English might have played a role in leading to the failure in perceiving and producing Alabaman English. Although this study does attempt to look into the influence of multiple varieties on SLA, it should be noted that dialect acquisition in this case is assumed to happen sequentially, very much in line with other SDA or SLA studies.

This differs crucially from what the current study investigated, namely, a context in which SLA occurs under the concurrent influence of different varieties. This situation often occurs in English as a foreign language (EFL) contexts such as Hong Kong. Included in L2 learners' exposure to inner circle and outer circle varieties of English (cf. Kachru 1985; 1992; 2005; see discussion in section 2.4.2) is an additional outer circle variety, namely Filipino English. Children are exposed concurrently to this variety as well as to American-, British-, and Hong Kong- English. Through looking at a specific aspect of children's L2 English phonology, it is hoped that a clearer picture can be gained with regard to SLA in the presence of diverse input. Furthermore, Fox and McGory's study along with some others (e.g. Leung 2011b; Nycz 2011) exploits social factors as a facile account for results that are actually not easily interpretable due to lack of a carefully designed research instrument to elicit data related to social factors (cf. Young 1999). On the other hand, calls from the socio-cognitive camp for taking social factors seriously (Firth and Wagner 1997; 2007 up to more recent works e.g. Atkinson 2010; Batstone 2010 a; b; Larsen-Freeman 2010; Tarone 2010) reveal discussion mostly at a conceptual level, with little practical guidance for how and what social and cognitive factors to include in a viable study. The present study hence operationalises social factors in terms of attitude (cf. McKenzie 2010; Moyer 2007; Spolsky 1969) and tries to investigate its potential relationship with learners' linguistic output under the influence of input from multiple varieties. It is to this topic that the literature review

now turns.

2.4 Language Attitudes

Language attitude, being one of the main concerns of sociolinguistics due to its potential to explain variation in a speaker's production, has been investigated using various approaches, including the societal approach, direct approach, and indirect approach. This section will briefly review key language attitude studies and how they have been conducted, particularly those done in Hong Kong using these approaches. Crucially, it will draw readers' attention to the fact that the majority of these attitude studies have neglected the younger population. Moreover, language attitude is mostly studied in isolation rather than being linked to acquisition or language use, for example in Hong Kong.

2.4.1 Societal approach

The societal approach is the least intrusive among the three main approaches as data is often gathered through ethnographic means where participant observation is used alongside existing materials gathered from the research context (Garrett, Coupland and Williams 2003; McKenzie 2010) such as language policy (e.g. Biggs 1998; Evans 2000; Lee and Leung 2012; Poon 2004; So 2002), materials from the media (e.g. Chan 2002; Ma 1998; Tsui and Bunton 2000), and census data (e.g. Bacon-Shone and Bolton 1998). Tsui and Bunton (2000), for example, analysed 1,234 internet messages posted on the TeleNex Language Corner hosted by the Teachers of English Language Education Centre (TELEC) in the Department of Curriculum Studies at the University of Hong Kong. Among these messages are contributions made by both local Hong Kong English teachers as well as native English speaker teachers in Hong Kong. They found through analysing these messages that teachers regard dictionaries and grammar usage books from native speaking countries such as Britain to be the authoritative sources of

information for English queries. They also show that teachers clearly defer to exonormative norms, a sentiment echoed in many other studies using other approaches as shall be seen shortly (e.g. Candler 2001; Lam 2007; Zhang 2010). At the same time, none of them recognise the legitimacy of “Chinglish” (Chinese English) in the education and business context. They also uncover the striking fact that Hong Kong English is not even mentioned once in the messages posted on this online discussion forum, most likely reflecting the pessimism/inferiority complex towards the development of regional (Chinese/Asian) or local (Hong Kong) norms of English. While this approach provides interesting insights into aspects of attitude especially when participants are hard to locate, it is often not regarded as sufficiently rigorous (McKenzie 2010) and the analyses often boil down to how the qualitative data is analysed by the researcher (Zhang 2010). Specific aspects of attitude cannot necessarily be tapped into because of the indirect nature of the approach.

2.4.2 Direct approach

Another commonly used instrument in eliciting language attitude is the direct method. It involves the administration of surveys, questionnaires, and interviews in isolation or in some form of combination. By nature, this approach enables researchers to target specific aspects of attitude that they are interested in investigating, but this also increases the intrusiveness of the approach. Nonetheless, it is one of the most commonly used techniques in social sciences studies as it allows speedy data collection where a potentially large amount of data can be collected in a very short period of time (especially so for surveys and questionnaires) (Marshall 2005), though matters such as response bias and question phrasing can cause data validity issues (Crano and Prislin 2008; McKenzie 2010; Wittenbrink and Schwarz 2007).

In the context of Hong Kong, a large volume of studies have employed the direct

approach to investigate language attitude (e.g. Axler, Yang and Stevens 1998; Candler 2001; Hyland 1997; Lam 2007; Lai 2001; 2005; Ng 2005; Pennington and Yue 1994; Pierson, Fu and Lee 1980; Whelpton 1999; Yang and Lau 2003). The majority of these studies focus on the attitudes towards languages rather than varieties of English, i.e. Cantonese, English and Mandarin during the period of Hong Kong's sovereignty transition from the British government to the People's Republic of China (e.g. Lai 2001; 2005). Others concentrate on issues pertaining to the various varieties of English present in Hong Kong (e.g. Candler 2001; Lam 2007). Particularly relevant to the present context are studies that look into varieties of English since the target of investigation of the present study concerns varieties of L2 English present in Hong Kong. In his seminal work on the three concentric circles of English, Kachru (1985; 1992; 2005) categorised English varieties into three circles, the inner circle varieties, outer circle varieties, and expanding circle varieties according to the pattern of acquisition, sources of norms, the status of English as a native, second or foreign language, functional allocation and history of colonisation (Bruthiaux 2003). Inner circle varieties represent English varieties that are spoken as a native language; examples include the British and American variety. Outer circle varieties refer to varieties that are spoken in former colonies as a second language such as the case of the Philippines and Singapore, while the expanding circle includes places where English are taught as a foreign language; varieties emerging in those contexts (e.g. Japan, China) are hence classified as expanding circle varieties. This model provides a framework for applied linguists to work upon; some studies set in the Hong Kong context have also referred to it.¹⁴ Candler (2001), for instance, investigated secondary students' attitude towards a variety of accents of English that are commonly heard in Hong Kong representing the inner and

¹⁴ However, it is noteworthy that in reality whether a variety belongs to one circle or the other is often debatable as it can be difficult to define, among other things, whether learners are learning English as a second language or a foreign language.

outer circle varieties. They include North American, Australian, British, Singaporean, Filipino, Indian, and Hong Kong English. His study included an accent identification task, a questionnaire consisting of 11 items, nine of which involved attitude statement agreement rating, and a focus group. 289 students took part in the first task, 81 in the second, and finally 10 took part in the focus group. They were aged between 12 and 19 years old at the time of study. Relevant to the present discussion about the direct approach, the questionnaire and focus group revealed a clear preference for the inner circle varieties (British, American, and Australian), and at the same time there was “little support for the idea of the Hong Kong accent as a sign of Hong Kong identity” (2001: 77).

2.4.3 Indirect approach

The indirect approach, as its name suggests, involves more subtle measurements that make the research purpose less obvious for the participants (McKenzie 2010). This approach is generally believed to be able to dig deeper into participants’ underlying attitudes towards the phenomena in question, and it also enables researchers to unveil evaluations that could lie underneath conscious awareness (Oppenheim 1992). The indirect approach is hence considered an optimal measure when sensitive topics or issues might be involved. In view of the potential discrepancy between explicit and implicit attitudes towards a phenomenon/construct, including language attitude, sociolinguistic or social psychology studies often make use of the indirect approach to validate data that they obtained through the other measures reviewed above (see Zhang 2010).

In the field of language attitude studies, the matched-guise technique (MGT) is the most dominant task used (Garrett et al. 2003). It is a technique developed by Lambert and his colleagues (Lambert, Hodgson, Gardner and Fillenbaum 1960; Lambert 1967) making

use of bilingual/bidialectal speakers for recordings. The standard procedure involves asking participants to rate certain personality attributes (solidarity and status traits) after having listened to multiple speech samples. What the participants do not know is the fact that the various samples of speech are actually read by the same bilingual/bidialectal speaker. Hence, informants are essentially judging the numerous languages that they are listening to rather than the speaker per se. However, since true balanced bilinguals are difficult to find, the legitimacy and authenticity of such a design has been questioned. Subsequently, the verbal guise technique (VGT) has been developed (Cooper 1975; Giles 1970; Lindemann 2003). VGT remedies the problem of authenticity by utilising speakers with similar characteristics who only differ in their language or varieties of language that they speak. Since these techniques were introduced in the 1960s, versions of MGT or VGT have been widely used across various contexts (e.g. Cargile and Giles 1997; Cargile, Takai, and Rodriguez 2006; Campbell-Kibler 2011; Dailey, Giles, and Jansma 2005; Hiraga 2005; Lam 2007; Lindemann 2003; Luk 1998; McKenzie 2008; 2010; Zhang 2010). More recently, the implicit association test (IAT) which is argued to be even less direct than the MGT has also been introduced to the study of language attitude (Pantos 2010). It measures participants' response latency among different concept pairings. In a language attitude task participants listen to short speech samples and perform a concept association task with the various attributes given. The difference in response time, measured in milliseconds, reveals participants' subconscious preference for the various accents/guises. However, whether the IAT technique will catch on as a mainstream language attitude instrument like MGT/VGT is yet to be seen.

Language attitude studies in Hong Kong have also employed various versions of the MGT/VGT. Luk (1998) looked at the attitudes of 66 junior third year secondary students (30 males and 36 females) towards Hong Kong English (HKE) and Received

Pronunciation (RP). 97% of them were 14-16 years old when they took part in the study. Participants were instructed to listen to two samples of speech (HKE and RP) and identify the ethnicity of the two speakers. They were then asked to give their evaluations according to three attitude statements: *I like the English he speaks; I like my English teacher(s) to speak like him; I want to speak English the way he speaks*, on a 1-4 Likert scale ranging from *strongly agree* to *strongly disagree*. Results show that informants were aware of the existence of Hong Kong English as indicated by their success in classifying the Hong Kong speaker. However, the majority of them preferred RP over HKE.¹⁵

In another study conducted by Lam (2007), which is also set in Hong Kong, six accents of English were the target of scrutiny. They included, British, American, Australian, French, Hong Kong, and China (Mainland) English. 32 secondary school students aged between 12 and 14, and 33 others aged between 15 and 17 participated in a study comprising a questionnaire, a verbal guise task, and a listening gap-filling test (targeting the HK, US, UK, and Australian varieties). In line with many other studies discussed above, it was found that students preferred native or inner circle varieties of English over the local Hong Kong variety and that they were able to comprehend the British variety best out of the four accents targeted, followed by Hong Kong English. The author claims that familiarity with these accents might have aided participants' comprehension. However, as learners' language exposure profiles were not discussed in the study, such a claim remains a conjecture to be empirically substantiated.

¹⁵ One could perhaps argue that learners' preferences for certain accents are associated with their familiarity with such accent(s). Yet, by this logic, learners in the Hong Kong context should also prefer the Hong Kong accent to which they are frequently exposed from their local English teachers. This, however, does not seem to be the case as shown by this and other studies reviewed below.

Zhang's (2010) recent comprehensive account of language attitude towards varieties of English in Hong Kong looked at 44 university students' evaluation of eight accents of English. They are the educated Hong Kong English accent (HKed), the broad Hong Kong accent (HKbr), Received Pronunciation (RP), General American (AmE), Australian English (AusE), Tyneside English (TynE), Philippine English (PE) and Mandarin-accented English (ME). Through a set of instruments that included a VGT with 21 personality traits, Zhang was able to show that participants preferred native speaker inner circle models, a finding that strikes a chord with previous studies. In addition, she was able to establish that participants did in fact have a slight positive attitude towards the educated Hong Kong (HKed) accent in terms of solidarity traits. Moreover, American English was ranked more highly than the British model, hinting at the possibility of an American norm taking over as the most prestigious model even in an ex-British colony, i.e. Hong Kong. The main aim of this study, however, was not on relating language attitudes to the acquisition of L2 English/the use of specific phonological features.

2.4.4. Summary and outstanding issues

As discussed above, various approaches have been adopted in previous studies to investigate language attitude. In the context of Hong Kong numerous studies on language attitude have been conducted utilising the societal, direct, and indirect approach. Particularly pertinent to the current study are works done on attitudes towards varieties of English present in Hong Kong. Findings of the majority of these studies highlight the general preference of native (exonormative or inner circle) models of English over the local Hong Kong norm. However, this research has concentrated mainly on the attitudes of post-puberty speakers, with early teens at the age of 12 being the youngest participants in the present context. What is less known is whether the attitudes that these teens or adults hold can also be found among younger pre-teen

participants. Therefore, with the aim of filling this research gap, the present study has chosen to include, along with 11 to 14-year olds, participants at the age at which they are first exposed to these varieties of English, namely those from kindergarten to early school age (4-6 years old) to take part in the attitudinal tasks investigating attitude towards the four varieties of English.

In addition, the above review clearly shows that the study of language attitude has not been incorporated into studies of SLA in Hong Kong. Owing to the growing importance of social factors in the study of SLA and the knowledge gained from the speech accommodation model (Beebe and Giles 1984; Giles, Coupland, and Coupland 1991) and audience design (Bell 1984; 2001) where attitude towards a variety of speech is claimed to affect speakers' choice of code in their speech production, it is worth asking the question whether the attitudes Hong Kong youngsters hold towards varieties of English can account for their L2 English use.

2.5 Research Questions

Synthesising insights gained from the research reviewed above, the present study brings together SLA, SDA and language attitude to address the following research questions:

1. Do learners acquire the phonological systems of the varieties to which they are exposed in the context of input multiplicity (Filipino-, HK-, UK-, and US-English)?
2. Can claims of SLM and OT, that pre-puberty learners can acquire the target phonology when exposed to sufficient input, be sustained in the context of multiple varieties?

3. Do learners acquire the Filipino English variety despite it being neither the community nor the institutional norm?
4. If learners do show evidence of having acquired the Filipino variety, what is the nature of their phonological competence?
 - a. Does their competence differ from what is normally considered native-like?
 - b. Do learners exhibit this knowledge in terms of both perception and production?
5. What attitudes do participants have towards the four English varieties in question?
 - a. How do kindergarten and secondary school-aged participants' attitudes towards the four target varieties of English compare?
 - b. Is participants' level of production of the Filipino variety of English linked to their attitudes towards that variety?

Chapter 3. The Context

In countries where both parents are out at work during the day, it is common to employ domestic helpers. Examples of this practice can be found in countries ranging from Canada and the USA to Singapore and South Africa (Constable 2007). These domestic helpers are often the main caregivers in households with children. They interact with them while their parents are working, hence the language of the domestic worker becomes one of the main sources of linguistic input for these children. The situation becomes more interesting when a second language (L2) is involved, i.e. in cases where the two parties do not share a common native language (L1), even more so when a different variety of an L2 than is taught in school is implicated. Despite the prevalence of such situations, very little research has been done to investigate child language acquisition in these circumstances.

Hong Kong (HK) where this study is set is among one of the many developed places where there is a highly visible presence of domestic helpers, local and foreign alike. In addition to local *amahs* who are often trained to serve in the domestic service sector through the Employees Retraining Board's incentives,¹⁶ HK employs foreign domestic helpers (FDHs) who mainly come from Indonesia, the Philippines, and Thailand.¹⁷ These FDHs, with the exception of Indonesians, communicate with their employers in English as they do not share a common language.¹⁸ For Filipinos and Thais, English

¹⁶ http://www.erb.org/Corp/home/coz_main/en/

¹⁷ FDHs constitute approximately three percent of HK's population with Indonesian and Filipino workers being the largest groups (Visa and policies 2007).

¹⁸ Prior to their arrival in HK, Indonesian FDHs are required to attend mandatory Cantonese (the language spoken by the majority of HK Chinese) courses. It is noteworthy that some Indonesians do communicate with their employers in English. However, since this study as explained in later sections focuses only on the influence of Filipino domestic helpers, suffice it to say that controls whose families have employed an Indonesian helper all reported using Cantonese exclusively to converse with them.

acts as a lingua franca that facilitates the functioning of the household despite being the L1 of no one. This creates a linguistic environment with the presence of various languages and multiple varieties of a language (vis-à-vis English). In other words, children are getting English input from these housekeepers in addition to input in the varieties of English they can occasionally hear from their environment, including Hong Kong English, and the institutional model which often represents either the American or British norm (Bolton 2000; 2002a; b; So 1992).¹⁹ The Filipino variety commonly heard in Hong Kong is marked by the substitution of [p, b] for the labio-dental fricatives /f, v/ and the non-aspiration of /p, t, k/ onsets (see table 4.1 in chapter four).

The FDH input in Hong Kong adds an extra layer of complexity to what is already a very intricate language situation where youngsters are exposed to Cantonese - the official and majority language, English – another official language, and increasingly Mandarin (Putonghua), the official national language.²⁰ For the purposes of this thesis, focusing on L2 English alone does not necessarily lead to uncovering the full linguistic complexity involved here. The nature of English input in Hong Kong is a highly complicated matter given that there has been a sequence of changes in the medium of instruction in the education system in relation to secondary education since the return of sovereignty to the People's Republic of China (PRC) government, through which one sees a significant reduction in the number of secondary schools that are allowed to educate in English initially amounting to only about 20% of the total number of schools (Bolton 2002a; 2011).²¹ At the time of writing, schools are again allowed to choose the

¹⁹ Other native varieties of English such as Canadian English and Australian English are also represented in Hong Kong due to the presence of expatriates and native English teachers.

²⁰ See Bolton 2011 and Hopkins 2006 for recent discussions on the complexity of the language situation in Hong Kong.

²¹ In an English as medium of instruction (EMI) school, all subjects are taught in English apart from Chinese and Chinese history, while the opposite is true for a Chinese as medium of instruction (CMI)

medium of instruction as they see fit under the new “fine tuning policy”, provided adequate support and resources are available, for instance, the availability of teaching materials in the chosen language, the numbers of qualified teachers, etc. (HKSAR Government 2009). Moreover, native speaker teachers of inner circle varieties (NETs) are present in many schools in Hong Kong (Boyle 1997; Tsui and Bunton 2002) to provide input that is different from the local Hong Kong variety which has at this point in time developed its own unique lexicon (Benson 2000), syntax (Gisborne 2009) and phonology (Hung 2000; Sewell and Chan 2010) which are detailed in many recent works on the matter (see McArthur 2002; Setter, Wong and Chan 2010, *inter alia*). FDHs who speak a different variety of language (i.e. L2 English) from what is available in the Hong Kong speech community add to the linguistic diversity but at the same time further complicate the language acquisition context for young learners who are bombarded with various other means of input from the environment, education institutions, the media, expatriates, and so on.

Notwithstanding their significant presence and their being regarded as auxiliary English teachers on occasion (Constable 1997b; 2007; McArthur 2002; Poon 2006), FDHs’ role in the L2 English acquisition of children has not been studied widely, and, at best, has only been noted in passing (e.g. Afendras 1998; Yeung 2007) both in the current context and beyond (e.g. Shaalan 2009). This under-researched area has remained dormant even after Crebo (2003) brought the scarcity of research pertaining to FDHs’ (Filipino FDHs in particular) influence on children’s acquisition to attention and despite the emergence of studies that examine bilinguals’ mental representations (e.g. Yip and Matthews 2007; Matthews and Yip 2009) and sociological endeavours related to other disciplines (e.g. Chang and Ling 2000; Cheung and Mok 1998; Constable 1997a; Ozeki 1997; Piper and

school. There is also the issue regarding whether Cantonese or Mandarin should be used in the CMI system, but this matter is beyond the scope of the current discussion.

Roces 2003). In spite of the dearth of research, it is sometimes assumed that FDHs affect children's acquisition of a second language (both production and perception) because the FDHs speak in an accented manner. A survey of online forums such as <http://hongkong.asiaxpat.com> and <http://www.baby-kingdom.com> reveals this widespread sentiment.²² This belief, however, has not been substantially supported by empirical evidence in Hong Kong. Crucially, the limited studies available on the topic seem to come to the opposite conclusion, i.e. the presence of an FDH in the household appears to be facilitative to the acquisition of English as an L2 (e.g. Chan and McBride-Chang 2005; Tse, Lam, Loh, Ip, Lam and Chan 2009). Yet, it is noteworthy that one study (Cheuk and Wong 2005) has attempted to associate the presence of FDHs with specific language impairments found in young children. The following section briefly reviews the above mentioned studies in order to set the scene for the present PhD study.

3.1 Previous Linguistic Studies in the Current Context

Afendras' study (1998) aimed to investigate bilingualism in Hong Kong. He collected questionnaire data on language choice at home during mealtimes from four primary schools in Hong Kong. Of the 1,360 students who participated in the study, 34.8%, i.e. 473 households, reported employing a foreign domestic helper. The majority of the FDHs employed were Filipinos. Afendras suggests that these Filipinos contribute to the increase of English use in the otherwise Cantonese dominant families.²³ At the same

²² Readers interested can browse the following website for the comments made by concerned employers who lament the apparently inadequate English abilities of FDHs:
<http://hongkong.asiaxpat.com/forums/hong-kong-domestic-help/threads/95419/english-lessons-for-domestic-helper/>. See also

<http://www.baby-kingdom.com/forum.php?mod=viewthread&tid=1142802&extra=page%3D1&page=1> for anecdotes shared by parents who had employed FDHs.

²³ It should be pointed out that Afendras has included families of other dialects/languages in the study (e.g. Hakka, Mandarin, etc) apart from Cantonese families.

time, Filipino FDHs were emerging as “live-in English tutors for middle-class children” (Afendras 1998: 137), though their English was often stigmatised.

In a related study, Crebo (2003) was interested in gauging people’s perceptions about Filipinos’ roles in English language learning in Hong Kong. She conducted case studies with three Chinese families who have a Filipino housekeeper. Through the qualitative comments obtained through interviews, Crebo found that Filipino domestic helpers are often expected to and do take on multiple roles in the household including the role of a language teacher in addition to being responsible for the household chores. They take part in both informal and formal activities in helping to build the child’s English ability (e.g. watching English television with the child or teaching the child English vocabulary through formal lessons). However, not all of them were credited for the role they play in assisting the child’s English acquisition.

On the other hand, Chan and McBride-Chang (2005) compared English and Cantonese vocabulary knowledge as well as the Cantonese syntax of 50 third grade kindergarteners (mean age 5:6) who were separated into two groups depending on the presence/absence of a Filipino helper in the household. This study offers insights into the effect of Filipino helpers on aspects of the children’s L2 English acquisition by including concrete measures to assess the receptive vocabulary of informants. Participants took part in tests which measured their respective English and Cantonese knowledge of vocabularies as well as a task that tapped into their comprehension of Cantonese syntactic structures. Results indicated that the 28 informants who had a Filipino helper at home did not differ significantly in their Cantonese syntax from the 22 controls. However, the experimental group “demonstrated significantly better English vocabulary knowledge and significantly poorer Cantonese vocabulary knowledge” (Chan and McBride-Chang 2005: 187). These results hold true even after other factors such as

parental-engagement time and children's cognitive ability have been controlled for. These findings paint a complex picture regarding children's language acquisition under the influence of a foreign domestic helper (see below about bilingual acquisition). Of particular relevance to the present investigation, Chan and McBride-Chang's study points to the superiority in English vocabulary knowledge of children who were cared for by Filipino domestic helpers, i.e. a positive effect in this aspect of English acquisition had been brought about by live-in Filipino helpers.

In a much larger study investigating another aspect of English acquisition of children in Hong Kong, Tse et al. (2009) examined the English reading ability of 4,352 grade four children between the ages of 9 and 10. 42% of these children had a domestic helper at home; the majority of these helpers were from the Philippines (47.75%). They found that students who had English-speaking domestic helpers at home performed significantly better in a reading test than those students who did not have such a helper. The effect of the presence of Filipinos remains significant even after the parents' language use variable is eliminated from the analysis. These results largely support the authors' hypothesis that the presence of English-speaking domestic helpers in the household is beneficial to children's acquisition of English as a second language, though they caution against associating FDHs as the sole cause for the better reading scores among children with FDHs since other factors such as parents' language use and socio-economic status did play a role as well. The findings of this study contrast with a study conducted in Singapore (Cheo and Quah 2005) which failed to find a significant impact of FDHs on the academic achievement of 429 eighth grade children. However, it is important to note that the language situation in Singapore is quite different from Hong Kong; while English is commonly used as a first language in the former location, the majority of the Hong Kong population does not speak English as their first language. Hence, the positive effect seen in a context involving English as a second language

might have been masked in the study by Cheo and Quah.

Cheuk and Wong (2005) employed a retrospective design to analyse the demographic information and previous medical records of 237 children in Hong Kong (mean age 2.51) who were reported to have “various neurodevelopmental or behavioural problems” (2005: 715). 259 controls (mean age 2.89) were included as a comparison. It was found that foreign domestic helper employment is associated with a higher chance of developing specific language impairment (SLI) among children in the sample, though the authors acknowledge the presence of other confounding factors such as gender, the presence of older siblings, and family history, which had interacted with the results. Crucially, the retrospective design - post-hoc data collection from cases that are already known to have SLI - made the findings questionable. Such a methodology falls prey to the potential of motivated reasoning whereby one “think[s] about and evaluate[s] information in a way that supports a particular directional conclusion” (MacInnis and de Mello 2005: 6). It could be argued that variables selected in such a design were targeted so as to prove one’s assumptions. In addition, no details regarding the initial assessment of the SLI cases were given. In fact, the authors had iterated the lack of consensus as to how SLI is defined. Furthermore, conventional assessment criteria often fail to capture the language abilities of bilinguals (since most of the assessment is only done in one language); abundant studies have indeed shown that when the overall language capacity of children is taken into account (i.e. the sum of all languages they know), children who are previously diagnosed with SLI indeed fall within the range of their normally developing monolingual counterparts (see Genesee, Paradis and Crago 2004 for an overview; also Hoff, Core, Place, Rumiche, Senior and Parra 2012). Therefore, without knowing the diagnostic criteria employed in the initial assessment of the sample, findings reported in Cheuk and Wong’s study have to be taken cautiously.

3.2 The Pilot

As briefly alluded to from the start, very little has been done to explore learners' L2 English acquisition in the presence of Filipino domestic helpers. More importantly, from the studies reviewed above it can be seen that only a minority of research has included actual language data. For example, the studies of Afendras and Crebo had both identified live-in Filipino FDHs as important sources of English to the household though their contributions had largely gone unacknowledged and un-ratified by employers. In particular, these FDHs had led to an increase of English usage in the household, and they had also acted as language teachers in assisting children's English acquisition. Yet, these studies did not include language data that could directly verify the effect these Filipinos had on the acquisition of L2 English by their young employees.

Other studies reviewed above (Chan and McBride-Chang; Cheuk and Wong; Tse et al.; Leung) did include various measures to inspect the actual effect of foreign domestic helpers on learners' L2 English acquisition. In combination, they seem to suggest that the presence of English speaking FDHs facilitates various aspects of children's L2 English acquisition including the areas of vocabulary and reading. Yet the impact that FDHs may have on children's L2 acquisition of English phonology has not been investigated. This is quite a puzzling state of affairs as a foreign accent is one of the most salient features that sets one variety of English apart from another (Hughes, Trudgill, and Watt 2005). Against this backdrop, a pilot comprising both production and perception tasks was conducted to explore the possible influence FDHs have on children's acquisition of L2 English phonology. The study chose to focus on Filipinos' influence not only because Filipinos constitute the largest group of FDHs in Hong Kong, but also because most of them had not received any formal training in Cantonese, the community language of Hong Kong, prior to their arrival unlike their counterparts from

Indonesia. Therefore, the language used for communication (i.e. English) between participants and the helpers can be controlled for. The effect of this group of helpers, too, received sparse attention, even though they were claimed to be the main agents of bringing English into Hong Kong Cantonese households (Yeung 2007).

By focusing on a few phonological features that are represented differently, the pilot looked at the acquisition of Filipino English phonology by HK Chinese. Specifically, it targeted five English sounds, the plosives /p, t, k/, and labio-fricatives /f, v/ since they are instantiated differently in the Filipino variety than they are in the Hong Kong, British, and American varieties available in the community. In the Filipino variety, the plosive onsets are often unaspirated (Bautista 2000; Tayao 2008), while this position is attested to favour aspiration in many other varieties of English (e.g. Carr 1999; Davenport and Hannahs 2010). Moreover, the labio-fricatives /f, v/ are sometimes represented as [p] and [b] on the surface in Filipino-accented English (Bautista 2000; Tayao 2008; see also table 4.1 in the following chapter).

Partial findings of the pilot have been reported elsewhere (Leung 2010; 2011b); they will be summarised here. Five participants aged between 12 and 23 took part in the production study (2010). They were divided into two different groups according to their language profile, i.e. their exposure to Filipino English. None of the informants, neither participants in the experimental group nor the controls, who had not been exposed to Filipino English, produced any Filipino-accented speech in a paragraph reading task involving a specially composed 106-word passage that contains 12 tokens of /f/, /v/ and 26 tokens of /p/, /t/, /k/ in syllable-initial positions. The target sounds accounted for 36% of the passage, yielding roughly one token in every three words (2010). Moreover, participants did not produce any Filipino-accented English in the semi-structured interview either. Their production, therefore, differed from the two Filipino participants

(55 and 52 years of age) whose productions resembled features characteristic of Filipino English reported in the literature with a low rate of plosive onset aspiration and substitution of [p, b] for [f, v].

The perception study (Leung 2011b) investigated learners' ability to perceive Filipino English. In line with the production study, the five sounds, /p, t, k, f, v/ were also chosen to be the subject of scrutiny. Informants aged 2;6 to 25 in the perception study were separated into three groups depending on whether they were receiving ongoing Filipino English input (group A), or they had received this variety of input but no longer did at the time of testing (group B), or they had not been exposed to Filipino English at all (group C). In various listening tasks (word spelling task, picture choosing task), participants had to identify the word which was spoken in Filipino-accented English. Results showed a cline of varying abilities in recognising the sounds (2011a) with group A performing the best, group C performing the worst, and participants in group B performing somewhere in between the other groups. The gradual decline in sensitivity towards Filipino English among the different groups suggests that the quantity and recency of Filipino English input affect people's ability to listen to this particular variety of English.

3.3 Summary

The review of related studies done in Hong Kong shows that research on the influence of FDHs on children's SLA is rather under-researched. Specifically, there has been virtually no study in the area of L2 phonology acquisition. Therefore, a pilot study was conducted to explore the possible effect of the presence of a Filipino FDH on children's acquisition of Filipino English phonology. However, whether or not the presence of Filipino domestic helpers will affect learners' ability in perceiving some other varieties of English in the ambience is a question that remains to be addressed. The current PhD

study expands the scope of inquiry to cover various varieties of English that can be heard in Hong Kong, namely American-, British-, and Hong Kong- English; this study complements the earlier study on the area in attempting to answer this question. Furthermore, this study aims to rectify problems identified in the pilot.²⁴ This is achieved by using different methods than used in Leung's study to test participants' perception and production regarding Filipino English, details of which will be given in the following chapter. Moreover, this study recruited more participants so as to allow the use of inferential statistics in data analyses which enhances the explanatory power of the findings obtained (Loewen and Gass 2009).

²⁴ Details of the problems identified through the pilot will be reported in the methodology chapter.

Chapter 4. Methodology

Owing to the multi-faceted nature of the study, a set of research instruments which includes tasks that tap into participants' L2 English perceptual and productive knowledge as well as their attitudes towards varieties of English was designed. The various tasks aim to address the numerous research questions posed at the end of the literature review chapter (section 2.5). This chapter details the tasks chosen and provides justifications for their use; other alternatives will also be considered where appropriate. Through these instruments, it is hoped that a better understanding can be gained regarding the acquisition of English as an L2 by Hong Kong children of 4;6-6 years old (group A) and teenagers aged 11-14 years old (group B) both of whom are under the influence of Filipino domestic helpers. The chapter begins by outlining the details of participants that this study targets. It will then proceed to a section which describes the experimental tasks selected for the study. The procedure adopted during the data collection will be outlined as well. This is then followed by a section that discusses the ethical considerations. A section on methods of analysis for the data collected follows, and the chapter will end by discussing the general limitations of this set of instruments and the study.

4.1 Target Participants

The intended participants for the study came from two separate groups: kindergarten pupils in their third year of (pre-)school (4;6 to 6 year olds), and secondary school students in their first year of studies (11 to 14 year olds). In addition, informants who were exposed to Filipino-accented English as well as those who had not had such exposure took part. The rationale for using age and Filipino-accented English exposure as the main dividing criteria for categorizing the groups was twofold: (i) The main area of investigation for the study is the potential effect that Filipino housekeepers have on

the acquisition of L2 English phonology by Hong Kong Chinese, so that is the reason why groups A-F (Filipino) and B-F (Filipino) were matched with respective control groups A-C (control) and B-C (control) which differed in terms of the presence and absence of such input (see Figure 4.2); and (ii) the second dividing criterion, age, was selected because the two age groups mark two important transitions where children in

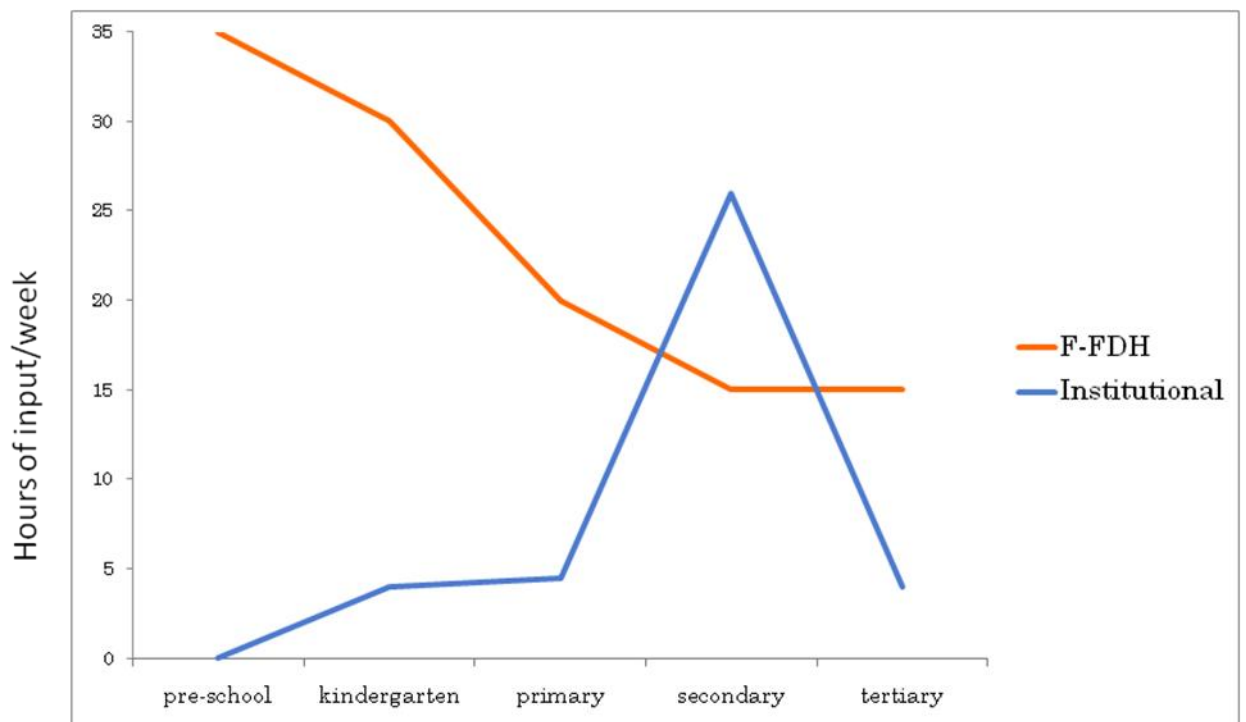


Figure 4.1 English input that children get from different sources²⁵

Group A were in their final stage of nursery education (third grade of kindergarten (at around the age of 6)) and teens in Group B were in their first year of secondary education. It is reported in the literature that during a certain period within these two points of life, youngsters switch their orientations from being heavily influenced by parental/ institutional sources to orienting themselves with their peers (e.g. Kerswill 1996; Kerswill and Williams 2000). Furthermore, the two stages mark different degrees

²⁵ Figure 4.1 is an estimated English exposure profile compiled using the typical weekly schedules of participants from the pilot study. It is important to point to a caveat, however, regarding such an exposure profile. A study of children's reading ability done in the same context (Tse et al. 2009) highlights the fact that the amount of interaction between FDHs and their grade fo Group A were in ur (primary school aged) informants is subject to large individual variation which can range from 0 to 144 hours per week.

of exposure to institutional English input as well (cf. Figure 4.1); informants in group B had had more institutional English input from school, which is also a potential factor that affects one's acquisition, while at the same time the influence of the housekeeper is at its maximum for children in Group A since at that point the housekeeper is the main English input provider for the children (Afendras 1998; Constable 1997b; 2007; McArthur 2002; Poon 2006) because the parents are often out at work during the day, and also since the institutional input these children receive is typically limited to about 100 minutes per week.

- Group A: 4;6-6 years old (grade three in kindergarten)
- Group A-F: Children with Filipino domestic helpers (N = 30)
- Group A-C: Children without Filipino domestic helpers (N = 15)

- Group B: 11-14 years old (first form in secondary school)
- Group B-F: Teens with Filipino domestic helpers (N = 30)
- Group B-C: Teens without Filipino domestic helpers (N = 15)²⁶

Figure 4.2 The various groups of intended participants

30 informants from each of the sub-groups were sought for the study, yielding 60 participants with Filipino housekeepers and 30 controls who did not have such domestic helpers, but who might have some indirect knowledge of Filipino-accented English.

4.2 Details of the Experiment and the Research Instrument

As mentioned above, the three main parts of the project pertain to English perception, production vis-à-vis Filipino-accented English, and attitudes towards Filipinos and various Englishes including the Filipino variety. The following text explains each part in

²⁶ Naturally, given the nature of the experiment, considerable effort was put into ensuring that participants in the control groups had not had Filipino domestic helpers in their household prior to the onset of this study.

greater detail providing the actual task design, its procedures and the justification for the choice of each task. Sections 4.2.1 and 4.2.2 show what contributed to the instrument testing learners' underlying (phonological) competence of Filipino-accented English, while section 4.2.3 details how attitudinal data was elicited.

Table 4.1 Comparable (segmental) contrasts between Filipino and HK English

	Filipino English (see Bautista 2000; Tayao 2008)	Hong Kong English (see Bolton and Kwok 1990; Deterding, Wong, and Kirkpatrick 2008; Hung 2000; 2002; Sewell and Chan 2010 <i>inter alia</i>)
#_ (/p/, /t/, /k/)	Not aspirated	Aspirated
/f/, /v/	/f/ realised as [p], /v/ as [b]	/f/ realised as [f], /v/ as [v]/ [w]
/θ/, /ð/	/θ/ realised as [t], /ð/ as [d]	/θ/ realised as [t]/ [f], /ð/as [d]
Sibilants /s/, /z/, /ʃ/ /ʒ/	Confusion among them	/ʃ/ sometimes realised as [s]
Rhoticity	Rhotic	Non-rhotic

As shown in table 4.1, the features that differentiate Hong Kong English from Filipino English include the sounds /f/, /v/, /p/, /t/, and /k/. The labio-dental fricatives /f/ and /v/ are often realised as [p] and [b] respectively in the latter variety of English. On the other hand, the lack of aspiration for the plosive onsets /p/, /t/, and /k/ is also characteristic of the Filipino variety. These sounds were hence chosen to be the focus of the study for they are instantiated markedly differently in the two varieties of English.

4.2.1 Perception

4.2.1.1 Picture choosing task

As mentioned in the literature review, there is a widely reported asymmetry between production and perception with respect to the acquisition of phonology. Thus, it is still under debate whether perception (and in turn competence) always exceeds production such that there are researchers who argue for the contrary. Others suggest a parallel development between the two (see Hendriks and Koster 2010). Hence, perception tasks along with production tasks (see section 4.2.2) were included in the study to see

whether any discrepancy can be observed from informants' performance in the perception tasks and the production tasks detailed below (cf. research question 4), i.e. whether there is evidence of phonological knowledge of/competence in Filipino English (cf. research questions 1-3). As suggested by the pilot study done earlier (reported in Leung 2010; 2011b), speakers exposed to Filipino-accented English who did not produce Filipino-accented English speech are nonetheless able to perceive Filipino-accented English sounds better than those who had not had previous exposure to this L2 variety. This raises the issue of participants' phonological competence of Filipino-accented English. Therefore, it is deemed important to look at perception as well as and separately from production in order to reveal the full profile of speakers' underlying competence in this variety of English.

Indeed, perception seems to be under-investigated in L2 phonology when compared to production (Gut 2009; Tench 1996), and hence the inclusion of perception tasks not only allows the cross-validation of speakers' phonological knowledge as mentioned, but it also contributes to the tackling of the current imbalance in L2 phonology study design by incorporating both identification and discrimination tasks (Strange and Shafer 2008), where listeners have to identify the stimuli or categorise them in the former, while discriminating the given items from each other in the latter.²⁷ However, not all the tasks commonly used in the literature could be directly adopted in the current study given the age of the youngest participants. Conducting research with children can be quite challenging due to their distractability, memory limitations and over-attention to certain perceptual features in the situation (see Donaldson 1978; Ruff and Capozzoli 2003;

²⁷ This imbalance is, in fact, increasingly being addressed by researchers (e.g Beach, Burnham and Kitamura 2001; Altvater-Mackensen and Fikkert 2010). A few papers in *New Sounds 2010* including Lee and Cho (2010; 2011) also look into both production and perception of speech sounds in L2 acquisition contexts.

Ruff and Lawson 1990). In addition, children's limited command of productive language and their general cognitive development (e.g. Lewis 1992; Pinter 2011) are factors that have to be taken into account in designing a task.

A picture choosing task (e.g. Ioup and Tansomboon 1987) is appropriate for testing younger learners' perception of different sounds, since it is straightforward and easy for them to complete.²⁸ This also avoids problems that might arise due to literacy issues in an alternative measure such as the word spelling task that was used in the pilot.

Furthermore, as an identification task, it requires listeners to retrieve words from their lexicon (lexical knowledge) upon hearing the information offered by the aural stimuli (Strange and Shafer 2008). It is hence argued that such a task will adequately tap into one's phonological knowledge of the sounds in question as opposed to responding simply according to the acoustic cues without accessing one's phonology. This fits nicely with the purpose of the present study.

In this task participants listened to recorded English words spoken in four different accents, namely, Filipino, Hong Kong, Received Pronunciation (RP) and General American (GenAmr),²⁹ with the target onsets /f/, /v/, /p/, /t/, and /k/ (words that have also been included in the production task 3.1.1). They then selected the picture representing the word they heard from a set of three. The option of "not included"/ "don't know" was available when the participant thought the word they heard did not correspond to any of the pictures given, though it has to be mentioned that all the words

²⁸ It should be noted that Ioup and Tansomboon's study included adult participants as well; hence this task should not be conceived as unsuitable for non-children informants. In addition, great care has to be put into selecting appropriate pictures so as to avoid potential confusion (see below and section 4.3.4).

²⁹ Informants and controls should only differ with respect to Filipino-accented English; by including words spoken in other accents that both groups would have been exposed to, this assumption can be tested.

played were actually instantiated in the pictures. Five words with five different onsets were used yielding 25 tokens. 13 distracters consisting of words that do not contain the target onsets /f/, /v/, /p/, /t/, and /k/ were included as well so that the participants would not be able to identify the true purpose of the task, which was to test their perceptual knowledge of the sound in question. Vowels of various features were included (e.g. [+high] /i/ vs [+low] /æ/) to follow the target onsets so as to minimise the possibility of results being affected by the quality of the following vowel. Furthermore, mainly monosyllabic words were used so that any phonetic/co-articulatory effect (e.g. reduction in aspiration, consonant devoicing (see Carr 1999; Davenport and Hannahs 2010; Labov, Ash and Boberg 2006; Strange and Shafer 2008) that applies to multisyllabic words could be minimised, as in (4.1).

(4.1) Words and the respective features of the vowels immediately following the target onset included in the picture choosing task.

/f/:	<i>F<u>o</u>od</i> , /u:/	[+high, + back, +round, +tense],
	<i>F<u>e</u>et</i> , /i:/	[+high, +front, + tense],
	<i>F<u>i</u>sh</i> , /ɪ/	[+high, +front, -tense],
	<i>F<u>a</u>n</i> , /æ/	[+low, +front],
	<i>F<u>o</u>rk</i> , /ɔ:/	[-high, -low, +back, +round]
/v/:	<i>V<u>e</u>getables</i> , /ɛ/	[-high, -low, +front],
	<i>V<u>e</u>t</i> , / ε /	[-high, -low, +front],
	<i>V<u>a</u>n</i> , / æ /	[+low, +front],
	<i>V<u>o</u>lcano</i> , /ɒ/	[+low, +back, +round] (RP) or /ɑ:/ [+low, +back, +tense] (GenAmr)
	<i>V<u>a</u>se</i> , /eɪ /	(diphthong)
/p/:	<i>P<u>e</u>ach</i> , /i:/	[+high, +front, +tense],
	<i>P<u>a</u>rk</i> , / ɑ:/	[+low, +back, +tense] (RP) or / ɑɪ/ (GenAmr)
	<i>P<u>o</u>lice</i> , /ə/	(schwa)

	<i>Plate</i> , /eɪ /	(diphthong) ³⁰
	<i>P<u>ea</u>r</i> , / εə /	(diphthong) (RP) or / εɪ/ (GenAmr)
/t/:	<i>T<u>ea</u></i> , /i:/	[+high, +front, +tense],
	<i>T<u>w</u>o</i> , /u:/	[+high, +back, +round, +tense],
	<i>T<u>e</u>n</i> , /ε/	[-high, -low, +front],
	<i>T<u>a</u>xi</i> , / æ /	[+low, +front],
	<i>T<u>ab</u>le</i> , / eɪ /	(diphthong)
/k/:	<i>K<u>e</u>y</i> , /i:/	[+high, +front, +tense],
	<i>C<u>u</u>p</i> , /ʌ/	[+low, -front, -back],
	<i>C<u>a</u>t</i> , /æ/	[+low, +front],
	<i>C<u>a</u>r</i> , / ɑ:/	[+low, +back, +tense], or / ɑɪ/ (GenAmr)
	<i>C<u>a</u>ke</i> , / eɪ /	(diphthong)

It should also be pointed out that the pictures of potential confusion pairs were included in the same set wherever possible, e.g. *fan* and *pan*. Not all sets, however, contained confusion pairs because some of the words do not form a perfect confusion pair or the pairs that exist fall outside the repertoire of the informants (especially for the younger group). Other minimal pairs or close minimal pairs were included in such cases. An example of the task is laid out below (see appendices 1.1-1.4 for all the pictures included):

The participant heard the word *fan* and made a choice from the set of pictures given:

³⁰ Although care has been taken to avoid complex onsets which potentially add to the complication of sound production due to the co-articulatory effect, *plate* was included because of the difficulty encountered in finding age-appropriate words for the younger participants.



Participants were asked to indicate whether there was any word in the set that they did not know after they had completed the task. Those words were then excluded lest the analysis be obscured. This task was done in class (or individually if the participant was a personal contact of the researcher) where words were played and participants marked their answers on the given script that contained the pictures corresponding to each clip pre-recorded by English speakers of that particular variety.

4.2.1.2 Sound discrimination (AX³) task

Another task that was employed to test informants' perception was the sound discrimination (AX) task. This is another standard instrument that has successfully been used for such purposes elsewhere (see Strange and Shafer 2008). In this task, two Filipino English stimuli were juxtaposed (i.e. AX) with the first stimulus (A) remaining constant, while the second in the pair (X) could either be equal to A or different from it. This task investigated informants' ability to tell two Filipino English sounds apart. In

this task participants' perceptual knowledge of the confusion pairs was put to the test, i.e. [f] and [v] were contrasted with [p] and [b], while [p], [t], and [k] were aligned with [b], [d], and [g] which have similar voice onset times (as opposed to the long lag in aspirated sounds [p^h], [t^h], and [k^h]). The two sounds separated by 1500ms were played in a block of three in a randomized order (hence AX³) to avoid systematic answering, e.g. AA, AX, AA; each block of AX was also separated from the others by 1500ms. Different inter-stimulus-intervals (ISI) are thought to be able to tap into different realms of knowledge, with a shorter time interval such as 250ms testing participants' ability to discern physical (acoustic) differences between the two sounds. A longer ISI, on the other hand, taps into phonetic/phonemic knowledge that requires a higher level of processing (Strange and Shafer 2008; Werker and Tees 1984; Werker and Logan 1985; see also Matthews and Brown 2004), which is the focus of this study. Each participant indicated whether they perceived the stimuli presented to be the same or different while ignoring phonetic details such as the pitch, loudness, and length of the sounds which are bound to vary in naturally recorded stimuli. In cases where the informant was able to notice the difference, it can be said that they possess the knowledge of that sound and vice versa.

The sounds to be discriminated were as follows:

(4.2)

F – fan, pan; feet, peat; far; par
V – van, ban, veep, beep; var, bar
P – pan, ban; peep, beep; par, bar
T – tea, D; tan, Dan; tar, dar(k)
K – can, gan; key, gee(se); car, gar(den)

As can be seen from the list, nonce words were used when there was no perfect minimal pair. Examples include those words where the bracketed portions were not pronounced.

As the purpose of the task was to test participants' ability to discriminate the sounds, the knowledge of the actual word used (be it real or nonce) can be ignored (Strange 1995; Strange and Shafer 2008). An example of one of the blocks is as follows:

(4.3)

Fan, Fan (AA); Fan, Fan (AA); Fan, Pan (AB)

Alternative discrimination tasks include ABX and AXB which require participants to hold two sounds in their memory and compare them with the sound in slot X. These experiments impose greater processing load demands on listeners and are hence less appropriate for youngsters given their capacities as briefly discussed in section 4.2.1.1.

4.2.1.3 Synopsis - perception

The picture choosing task and the sound discrimination task were used for testing participants' perceptual knowledge of Filipino-accented English sounds. Together with the production tests, it is hoped that the full profile of participants' (phonological) competence of Filipino-accented English can be revealed. The results obtained from these tasks are particularly relevant for answering the first three research questions (see section 2.5).

4.2.2 Production

4.2.2.1 Carrier phrase reading – picture naming task

In light of the various constraints mentioned above for conducting child research, a task with minimal production load was selected, namely, a carrier phrase reading task. This task was selected over the other tasks commonly used in L2 speech production studies (e.g. word list reading, paragraph reading, story retelling, sentence composition etc. (see Gut 2009; Tench 1996)) in order to ensure that even the younger group of informants (group A) would be able to complete it. Informants were asked to repeat the carrier

phrase without having to read the orthography. Although this task involves a certain degree of control/consciousness, it was felt that since the task was disguised as a vocabulary test, not much attention was drawn to pronunciation, which was the actual target of the task, as opposed to the actual knowledge of the word. Other tasks such as word listing or paragraph reading (e.g. Major 1987; Schmidt 1987) essentially involve even more conscious control and a higher degree of formality (Labov 1966; 2006b). In addition, these alternatives were not feasible since the children might not have developed the literacy skills (for instance, the grapheme-phoneme correspondence in Roman alphabet English (Koda 2007)) essential for reading in an L2 at this young age (see Bialystok 2007). Therefore, the current test contained a carrier phrase as follows:

(4.4)

(Now) I see a/an _____.

30 pictures were presented to the participant; individuals read the carrier phrase and supplied the word that corresponded to the picture shown to them. Words included in this task contained the target onsets for the study, /f/, /v/, /p/, /t/, and /k/, and post-vocalic-R.³¹ The set mainly consisted of words that were taken from the household domain (i.e. words that children are likely to have heard from the Filipino housekeeper). An initial list was formed and two kindergarten teachers were subsequently consulted to ensure that words selected in that list were manageable even for the youngest age group. The final set of words included in the study is shown below according to the respective target onsets, fricatives /f/, and /v/, and stops /p/, /t/, and /k/, and words with post vocalic-R:

(4.5)

/f/: *Food, feet, fan, fish, fork*

³¹ The inclusion of words with post-vocalic-R aimed to address the current unsettled debate about the rhoticity of English spoken in Hong Kong.

/v/: *Van, vegetables, vase, vet, volcano*
/p/: *Pan, plate, police, park, peach*
/t/: *Tea, two, ten, taxi, table*
/k/: *Key, cat, cup, cake, car*
/ɹ/: *Chair, ear, hair, square, star*³²

Similar to the perception task, five words with each of the five different onsets and post-vocalic-R were used, yielding a total of 30 tokens.³³ Words that participants did not know were excluded from the analysis. Respondents completed the task by themselves and their speech production was recorded with an Olympus WS-series recorder for later analysis.

4.2.2.2 Guided oral production – pair matching task

Semi-spontaneous production data was obtained by engaging respondents in a pair matching exercise that involved players matching picture cards. The children and teenagers engaged in a pair matching task with the researcher and the pre-recorded Filipino-accented English samples in two different turns for which they were recorded with the same equipment as in the previous task. The reason why the participants took part in the same task twice but with different “interlocutors” was to find out whether any accommodation effect (Beebe and Giles 1984)/audience design (Bell 1984; 1991) was at work affecting speakers’ production. The recorded Filipino speech was meant to simulate the presence of a Filipino English speaker – the only alternative from the actual recruitment of a Filipino, which was not possible due to the limitation of resources.

³² Words that were taken out from the initial list included *video, pineapple, picture, and penguin*. They were either difficult to depict or they contained too many syllables which may have complicated the task too much for the kindergarten group.

³³ Distracters were originally included in the production tasks. However, pilots indicated that this made the exercise too lengthy, potentially affecting the participants’ performance due to fatigue. As such, they were eventually removed. Nonetheless, it is believed that the task on its own without the foil was sufficient for the present purposes, since the structure of the task does not draw particular attention to the pronunciation of words.

Participants were given a set of cards with pictures of the same items as in 4.2.2.1 and they had to work with their partner to find the matching pairs. Words that informants failed to name in the carrier phrase reading task were also excluded from this task. A simple verbal guide in the following format was provided, so that the relevant token obtained was maximised.

(4.6)

F: Do you have a “pan”?

C: Yes, I have a “pan”/No, I don't have a “pan”.

Less control by the participants was involved in this task since informants were engaged in playing the game rather than focusing on their English production, hence this task complements the first one which has its limitations, as mentioned.

4.2.2.3 Spontaneous speech data

Where consent was obtained, an Olympus WS-series recorder was handed to the participating family, where four hours or more of the interaction between the Filipino housekeeper and the child was recorded. This was to provide data that best resembled the natural setting where interactions between the Filipino and the child take place without the researcher's presence which might potentially affect the data collected. This also provides a means of assessing whether the children's English production varied according to different contexts (e.g. play time, homework completion, meal time, etc.). Each of these might offer different insights as to how their command of English varied according to different situations.

4.2.2.4 Synopsis - production

The production section of the test battery contained three sub-parts that targeted data associated with different degrees of control: carrier phrase reading (picture naming task),

guided speech production (pair matching task) and spontaneous speech production, all of which were conducted on an individual basis. These tasks also generated findings that are relevant to answering research questions 1-3 (see section 2.5). In conjunction with findings from the perception tasks, these tasks can potentially shed light on the fourth research question regarding the nature of participants' English phonology with regard to the Filipino variety as well.

4.2.3 Attitude

As suggested by the earlier pilot,³⁴ the observed dissociation between acquisition and input whereby children who grew up listening to Filipino-accented English input do not adopt such accents in their own English production would not be framed as an acquisition problem if these participants indeed show signs of acquiring this variety based on the perception data. In the pilot study, this was shown by their out-performing those who had not received Filipino-accented English input on the perception task. One possible interpretation of such results is that speakers might be avoiding the use of such accents (consciously/unconsciously) due to social factors (Bayley 2005; Chambers 1992; 2005; Schumann 1978; Spolsky 1989; Stanford 2008). That is why it was felt that the study would benefit from looking at informants' attitudes towards the varieties (in this particular case Filipino-accented English).³⁵ Therefore, the attitude part of the study could potentially offer explanation(s) as to why speakers have or have not adopted the Filipino accent in their English speech (cf. the fifth research question in section 2.5).

4.2.3.1 Matched guise technique (verbal guise technique)

³⁴ This was the project completed in 2009 as partial fulfillment of the IPhD programme requirement. It included the production and perception tasks, as well as an attitude part which made use of the verbal guise technique (see Zhang 2010).

³⁵ Please refer to the speech accommodation model (Beebe and Giles 1984) and audience design (Bell 1984; 1991); see also DeHouwer 2007; Schecter and Bayley 2002 for minority language preservation).

In order to test whether informants' performance on the production and perception tasks could in any way be related to attitudinal factors, i.e. divergence/convergence from/towards Filipino-accented speech, or perhaps more fundamentally whether participants have developed attitudes toward different accents, a version of the matched guise technique (Lambert et al. 1960) was included as one of the testing instruments, namely the verbal guise technique.³⁶ A substitute for this task would be a questionnaire, which is widely used for attitude research in the Hong Kong context as seen in the literature review chapter, but this was not chosen because it was expected that informants in group A would have problems filling in the questionnaire on their own due to their immature literacy in English. In addition, results obtained from questionnaires – a direct approach to the collection of attitudinal data as reviewed - are sometimes argued to be prone to social desirability bias (Crano and Prislin 2008; McKenzie 2010) or strategic responding (Wittenbrink and Schwarz 2007) whereby participants frame their answers in order to avoid social stigma or to portray themselves in a socially desirable manner (Oskamp and Schultz 2005; Pantos 2010). Therefore, the more indirect method, the verbal guise technique, was used instead (see also the discussion in section 2.4).

In this task, participants listened to a short paragraph recorded by four different speakers. They then had to rate the speakers according to solidarity and status traits. As noted already, the four accents included were RP, GenAmr, Filipino, and Hong Kong, all of which are present in the Hong Kong context. The first two on the list are targets taught in the curriculum (accents of native speaker teachers (NETs) in schools) and varieties available in the media. The Filipino accent is the target variety of investigation, and,

³⁶ In view of the fact that it is hard to find speakers who possess equal ability in all the varieties to be tested for a matched guise task, a verbal guise task was used which also retained the authenticity of the speech sample (see Campbell-Kibler 2006; McKenzie 2008; Zhang 2010).

lastly, the Hong Kong accent is the main variety of the local environment.³⁷ It has to be made clear, though, that the term ‘accent’ is often used in a very broad sense, as there is virtually no consensus in the field as to which exact features constitute an ideal representation of RP/GenAmr (and the like) (Gupta 2006). All that can be claimed about the recordings included in this task then is that they represent the typical pattern of the respective accent, and speakers with marked regional accents were avoided. All clips were read by females for valid comparison as Filipino FDHs employed in Hong Kong are most often females. A 191-word long passage from the pilot was used originally, but only the first paragraph (49 words) was employed in the end after taking into account the short attention span associated with the youngest age group. The paragraph used is shown below (see appendix 2 for the original passage in full):

(4.7)

The story of Pat.

In an old farm very far away lives a fat furry panda called Pat. Pat likes eating very much. He likes all sorts of food. Vegetables are good for him. He loves fruits too, pineapple, pumpkin, pear and more, but berries are his favourite fruit.

Alternative passages and recordings such as the *Rainbow* passage (Fairbanks 1960) (available at the International Dialects of English Archive (IDEA) website 1997) and the passage on George Mason University’s Speech Accent Archive (Weinberger 2010) had been considered as the stimulus for the task. However, the first one, which yields a Flesch-Kincaid Grade Level of 7.7 (DuBay 2004; Flesch 1948), was considered too difficult for the young listeners in the study. On the other hand, the Speech Accent Archive did not contain the appropriate recordings of Filipino-accented English at the time of the data collection. Therefore, neither of these was used as the target passage for

³⁷ It is widely documented that HK speakers of English have a distinctive accent, and recent work including Deterding et al. (2008), Hung (2000; 2002), Setter (2006), Sewell and Chan (2010) *inter alia*, has listed a number of features characteristic of this accent.

this task. It was concluded that a tailor-made passage was the best candidate for eliciting listeners' judgments as it has a large number of words with initial syllables that contain the target onsets /p, t, k/ (8 examples), and /f, v/, (12 examples) which distinguish Filipino accents from the other three included. At the same time, the selected passage has a Flesch-Kincaid Grade Level of 3.2 which seems to be more age appropriate than the alternatives.

The personality attribute list used for speaker ratings was adopted from Zhang (2010). Her study looks at Hong Kong university students' attitudes toward eight different varieties of English. As such it is argued that the task is relevant for the present study also set in the context of Hong Kong. However, a direct replication was not possible since some adjectives used in her study are too complex/abstract for youngsters to understand. Moreover, negative adjectives included in Zhang's list (2010) are not concepts that are widely taught in the kindergarten curriculum.³⁸ Thus, the list was modified after consultation with supervisors, four parents and two local Hong Kong teachers as well as three youngsters in the age range of the older group in Hong Kong. The following 22 adjectives included in list 1 were found to be most relevant; they were therefore included in the task.

List 1: Personality attribute list (see appendix 3)

Not friendly;	Friendly
Not sociable;	Sociable
Not intelligent ;	Intelligent
Not humble;	Humble
Not highly educated;	Highly educated
Not warm;	Warm
Not wealthy;	Wealthy
Not pleasant;	Pleasant

³⁸ This was pointed out to me by various teachers in the kindergartens where I collected data.

Not successful;	Successful
Not helpful;	Helpful
Not sincere;	Sincere
Not elegant;	Elegant
Not kind;	Kind
Not competent;	Competent
Not honest;	Honest
Not interesting;	Interesting
Not hard-working;	Hard-working
Not considerate;	Considerate
Not reliable;	Reliable
Not modern;	Modern
Not generous;	Generous
Not polite;	Polite

Through re-piloting this list with two kindergarten-age children, a number of adjectives proved to be difficult even in the adapted format. Hence, the final adjective list used for the younger group had to be further reduced resulting in a list with only half the number of adjectives, as shown in list 2. Contrary to the secondary counterpart, the youngest informants were required to respond only orally to this task given their assumed low level of reading in English.

List 2: Personality attribute list for the kindergartener group (see appendix 4)

Not friendly;	Friendly
Not warm;	Warm
Not pleasant;	Pleasant
Not helpful;	Helpful
Not sincere;	Sincere
Not kind;	Kind
Not competent;	Competent
Not interesting;	Interesting
Not hard-working;	Hard-working
Not generous;	Generous
Not polite;	Polite

Apart from rating the speakers according to the above solidarity and status traits, participants were also asked to identify the speaker's origin, and rate the following three questions on a 1-5 Likert Scale with 1 being *not at all*, and 5 being *very much*. The questions were: *Does this person sound like someone who would get the job of a radio/TV announcer?*, *Do you think this person sounds like a Hong Kong speaker of English?*, and *Would you like to sound like this person?*.

This verbal guise task is an essential test component since it links the two different aspects of the current study together, namely, the second language acquisition of phonology and speakers' attitudes. The pilot study suggested that learners' non-production of Filipino-accented English could not be attributed to input and acquisition dissociation per se since participants display perceptual knowledge of this accent after receiving that type of input over the years. Therefore, by using a verbal guise technique, it was hoped that some light could be shed on the attitudinal factor(s) that could potentially play a role in children's non-adoption of a Filipino accent. To date, attitudinal research rarely targets younger populations (c.f. Lai 2005; 2007; McKenzie 2010; Pantos 2010; Yang and Lau 2003 *inter alia*). The present investigation hence fills the gap by implementing such a task in a study with youngsters, and at the same time it helps to address questions such as *Do children have attitudes towards different accents? Have such attitudes (if any) emerged by the age of 4 to 6? Is the attitude related in any way with the learner's choice of variety?* (cf. research question five in section 2.5).

The task was conducted in groups; students were seated in a classroom/activity room where the clips of different accents were played. They were asked to rate the speaker according to the adjectives given. Answers were collected on a sheet of paper listing the respective solidarity and status adjectives along with the four questions mentioned earlier in this section (see appendices 3 and 4).

4.2.3.2 Focus group

Apart from the relatively more quantitative means of gaining insight regarding attitude, this study also incorporated more qualitative measures to access participants' attitudes towards Filipino-accented English and more generally towards the employment of Filipino domestic helpers in Hong Kong. This was done through the use of focus groups. Focus groups are traditionally used in marketing research to find out, among other things, users'/non-users' opinions with respect to services they have used or are about to use (Krueger and Casey 2000). It has recently been adopted as a research tool in academic research and it has proven to be a useful way to gain detailed opinions that could not have been obtained otherwise (Litosseliti 2003). It is hoped that qualitative data regarding speakers' attitudes obtained through this measure can serve to complement the quantitative method previously described (section 4.2.3.1).

Conducting focus groups with youngsters can be quite different from doing one with teenagers or adults (Gibson 2007; Kennedy, Kools and Krueger 2001; Morgan, Gibbs, Maxwell and Britten 2002). Different measures have to be taken to minimise disruptions that can be caused by children's behaviour (due for example to their short attention span). A few ground rules were laid down, including *You do not have to raise your hands to speak, Let others complete their contribution before you make yours, There are no right or wrong answers, You may go to the bathroom if you wish*, etc. This ensured that children participating had a clear idea of what was expected of them. Also, efforts were made to ensure that the children did not feel threatened or uneasy which may hinder the quality of comments obtained. This was achieved by providing refreshments and paying attention to the seating arrangements (they were seated in a circle which created an informal and relaxing atmosphere) (cf. Kennedy, Kools and Krueger 2001). In addition, creative elements that are not in a traditional focus group such as the use of activities aiming to keep youngsters who have shorter attention spans

engaged in the discussion group were also included. During the task in question participants listened to stimuli in different accents and were asked to comment on them. Pictures of businesswomen of different ethnicities were also shown to informants and they were asked to indicate who they thought the speaker was. They were then given an extra picture of a foreign domestic helper and were asked if they thought the picture corresponded to the speaker in the clip they heard. The clips included were different from those in the verbal guise task so as to avoid the conflation of the two tasks.

The main purpose of the task was to generate qualitative data with regard to children's attitudes towards Filipino-accented English; therefore questions included in the topic guide used revolved around a few related themes including children's views on foreign domestic helpers, accent awareness, and personal experience with Filipinos and Filipino-accented English. In addition to conventional ways of eliciting responses, i.e. by asking participants to discuss certain issues, modified means of gaining responses as briefly outlined above were also used. Thus, by playing sound clips with different accents and showing them people of different ethnicities, whether children have established a conception about how people "should" sound was also observed.³⁹ Groups of different compositions were included; they included groups of 4-5 children who had Filipino domestic helpers (group 1), and groups with the same amount of children who did not have Filipino housekeepers (group 2).⁴⁰

³⁹ It was previously shown that people's impressions about speakers' intelligibility can be altered if they are led to believe that the speech sample was read by a non-native looking person (Rubin 1992). This suggests that people have a preconception about how people of different ethnicities sound. This is also supported by research which indicates that children at a younger age do show an ability to coordinate language and social mappings on certain dimensions such as perceived race (Hirschfeld and Gelman 1997).

⁴⁰ A few groups with a mixture of both children with and without Filipino housekeepers were included as such a group composition allows us to observe group dynamics that could occur due to the different characteristics of participants. This, however, would be tapping into a rather different issue from personal

This task was conducted in Cantonese (the children's native language) since it provides the best channel for expressing opinions without issues such as proficiency in English coming into play. Each of the focus groups lasted for 40-60 minutes, and there was a 5-10 minute break in between. This was essential for youngsters as they might have lost interest if the focus group had gone on without a pause (Kennedy, Kools and Krueger 2001). It has to be mentioned that not all the recruits for the study eventually took part in the focus group discussions, since it is a well-known aspect of focus group participation that opinions are often exhausted after a certain number of sessions have been conducted. Since not many new insights can be generated after a few sessions (Krueger and Casey 2000; 2009), it was decided that it would not be necessary to invite all participants to take part in this task. This also helped to keep the data obtained through this measure more manageable from an analytical perspective. A total of nine focus groups were conducted: five with the kindergarten students and four with the secondary school participants.

4.2.3.3 Short questionnaire for parents and teachers

The inclusion of questionnaires for parents and teachers in the study facilitated the checking of potential external influences on children's attitudes and language choices. In other words, whether parents' and/or teachers' attitudes, which are external to the children (cf. Baker 1992), might have an impact on the children's attitude and views regarding Filipino-accented English can also be investigated. Since most parents were away for work, it was difficult to arrange a time for all of them to come for an interview session. Thus, a questionnaire seemed to be the most efficient way of collecting such data. However, as briefly alluded to in section 4.2.3.1, there are always possible

attitude, namely group attitude that is shaped in ongoing interaction among group members. Although this aspect of attitude would be interesting to look at, it is not the main point of investigation of the current study. Therefore, the number of such groups was kept to a minimum.

discrepancies between direct responses reported in the questionnaire (Crano and Prislin 2008; McKenzie 2010; Oskamp and Schultz 2005; Pantos 2010) and actual behaviour. Thus, the data obtained via this measure has to be viewed with some degree of caution.

The design of the questionnaire was inspired by previous research described in Candler (2001); Lai (2005); Luk (1998); Yang and Lau (2003) and Zhang (2010) which all investigated attitudes of school-aged youngsters or young adults towards different accents of English in Hong Kong (see also Humphreys and Spratt 2008). This 30-item instrument was essentially created to be short so that it could be completed easily by teachers and parents with minimal effort. Participants responded to positive and negative statements that tapped into attitudes towards Filipino-accented English. This included: (i) the awareness of this variety; (ii) its perceived acceptability and the comprehensibility of this variety; (iii) whether they look up to exonormative reference from inner-circle varieties (UK, US, Australian) or endonormative reference from the HK variety or the present variety in question – the Filipino variety; and (iv) the desire for their children to sound like Filipino FDHs. Participants indicated their responses on a Likert scale of 1–5 (ranging from *strongly disagree* to *strongly agree*) according to the extent that they were in agreement with the statement given. Examples of these statements are listed below (see appendix 5 for the full questionnaire):

(4.8)

- *English spoken by Filipino housekeepers is different from that of Hong Kong people.*
- *A person pronounces an English word correctly when s/he sounds like a Filipino.*
- *I find it easy to understand Filipino-accented English.*
- *I have corrected the Filipino housekeeper's speech when I heard her*

pronouncing words differently from how I read them.

- *The presence of a Filipino in the household is good for my child's/student's English fluency.*
- *I don't want my child/students to have a Filipino accent when speaking English.*

A Chinese version of the questionnaire was made available alongside the English version in case the parents had any problems with English. Eight additional demographic questions were also listed in the questionnaire (see appendix 6).⁴¹ This helped confirming the information obtained about the child previously as well as the Filipino FDH factual data. The questionnaire was administered to the students who asked their parents to fill it in. The teachers' version was issued in person and collected by the researcher after it had been completed.

4.2.3.4 Synopsis – attitude

Through various attitude tasks exploiting both quantitative (matched guise technique and questionnaire) and qualitative (focus group) methods, data pertaining to attitude towards Filipino-accented English was elicited. The findings from these tasks along with those from the production tasks can provide insights for addressing the fifth research question (section 2.5).

4.3 Procedure

4.3.1 The recruitment of participants

⁴¹ A follow up questionnaire with four sets of questions tapping participants' interaction patterns with FDHs and parents was issued in June 2011 (see Appendix 7). However, the majority of participants had chosen to remain anonymous, hence the data obtained cannot be linked to the data collected previously in the main data collection period (see section 4.3.1). In hindsight, the questionnaires could have been numbered so that backtracking was possible.

The data collection process took seven and a half months in total spanning from June 2010 to January 2011. Initial attempts to find schools to collaborate actually commenced in 2008 when e-mail invitations were sent to 21 kindergartens. Only two responses, both negative, were obtained and none of the other schools offered any form of reply. Thus, increased effort was put into finding partner schools as well as locating individuals fitting the criteria of the research since the first pilot in 2008 (which only made use of the researcher's personal contacts). A further six kindergartens were contacted in 2009-2010 in person, four of which agreed to take part in the study. Moreover, two secondary schools agreed to take part in 2010. These four kindergartens and two secondary schools hence provided the majority of participants for this study. Some further informants were located through "a friend of a friend approach" (Milroy 1980; Tagliamonte 2006). All participating schools and individuals were sent a two-page letter with bilingual English and Chinese descriptions of the study along with the researcher's affiliation and contact details (appendix 9). The letter explained the general purpose of the research, i.e. the relationship between the employment of foreign domestic helpers and children's acquisition of English. However, no specific details were disclosed; they were hence unaware of the fact that it was Filipinos' influence on child L2 English phonology acquisition that was being investigated. Equally no particular attention was directed towards the issue of attitude and code choice which is another aspect that the current study aims to address. A bilingual consent form requesting the agreement of participants' parents/guardians for their children to take part was sent together with the project description letter. In addition to the consent form, a bilingual assent form was included for the secondary school students to fill in during the actual data collection (see section 4.4 and appendices 10 and 11 for more details about the ethical issues involved in handling the data collected).

Potential participants in the younger age group were selected by the kindergarten

teachers and eventually 51 of them agreed to take part. Although 200 forms were sent to the students in the two secondary schools, only 37 pupils agreed to participate. Thus, including informants contacted through the friend of a friend method, a total of 56 children at kindergarten and 46 secondary school students took part in the study. 33 of them in the kindergarten group and 31 in the secondary school group, respectively, had and/or still employed Filipino domestic helpers prior to their participation. Their experience with this group varied, ranging from one year to 12 years. The data collection took place in classrooms/activity rooms in the respective schools and the participants' homes depending on whether they were contacted via the partner schools or whether they were a personal contact of the researcher.

4.3.2 Participant information

Participants in the kindergarten group were all pupils in their third grade of kindergarten studies, while informants in the secondary school group were in the first form of secondary education. The kindergarten children's ages ranged from 4;6 to 6 years, and the secondary school students were 11 to 14 years old. Samples included both males and females with the gender split being 73-29. Participants and controls who were chosen for subsequent analyses are all middle class L1 Cantonese speaking youngsters who reported speaking Cantonese with their parents and peers. On the other hand, they reported using English with the Filipino helper or during English lessons in school with local Hong Kong teachers or native English teachers (see section 4.5).

4.3.3 The preparation of the task material

Filipino English and Hong Kong English words in the picture choosing task were recorded with an Olympus WS-series recorder by a female Filipino-FDH working in

Hong Kong, and a female Hong Kong speaker of English.⁴² The RP and GenAmr words were taken from the *Cambridge Dictionary Online* (Heacock 1999). The same Filipino English speaker also did the recordings for the sound discrimination AX³ task and the verbal guise task.⁴³ Likewise, the Hong Kong speaker recorded the passage for the verbal guise task. In addition, a female British English speaker and a female American English speaker made recordings representing their respective varieties for the verbal task. The four sound clips of different Englishes in the attitude task were similar in loudness and duration (the Filipino version: 1 minute 28 seconds; the Hong Kong version: 1 minute 24 seconds; the UK version: 1 minute 17 seconds; and the US version: 1 minute 18 seconds). This ensured the comparisons of the four accents were valid without factors such as intensity and speech rate affecting the results.

Relevant pictures chosen were obtained from the web and thought to be unambiguous illustrations of the word in question. In addition, pictures that can arouse any extreme emotion (e.g. fear, horror) were avoided.

Two teenagers aged 13 and 17 who had a Filipino domestic helper in their household were consulted in a brainstorming session that generated a topic guide for the focus

⁴² It has to be noted that ‘Filipino accent’ is just an umbrella term which describes a range of variations, which is why scholars such as Tayao (2008) have adopted a lectal continuum approach (basilect, mesolect, acrolect) to describe Filipino English phonology. However, the Filipino English recordings were considered largely representative of the typical Filipino-accented English present in Hong Kong according to three other Filipino domestic helpers working in Hong Kong. The Hong Kong speaker, on the other hand, manifested features of Hong Kong English attested in the literature.

⁴³ It has to be pointed out that all the recordings by the Filipino speaker were done in one session and unfortunately she could not be contacted afterwards due to her departure from Hong Kong (not unusual given the transient nature of this migrant group). Therefore, even though some of the recordings could have been prepared in a better manner in hindsight, no rectifications could be made since the speaker was no longer available for further recordings. This issue will be addressed in greater detail in the limitations section (section 4.6).

groups. Relevant topics generated revolved around the following themes: the employment of foreign domestic helpers, attitudes (self-, perceived parents' - and teachers' - attitudes) towards their influence over children's L2 English phonology acquisition, and personal experience with FDHs. These topic guides formed the basis of the prompts used by the researcher/moderator in the actual discussions (see appendix 8).

4.3.4 Re-piloting

As there were expansions applied to the original set of tasks used in the earlier pilot study (Leung 2010; 2011b), it was felt that there was a need for a re-pilot with the latest and complete set of instruments. This was done with two kindergarteners aged 5 and 6 and one secondary school first former aged 13. They completed all tasks in the following sequence: picture choosing task, sound discrimination task, picture naming task, pair matching with the Filipino English recordings, pair matching with the researcher, and finally the verbal guise task. No major problems were spotted, although the image of the word *vet* in the picture choosing task was changed as the informants thought the original picture represented a doctor instead of a veterinarian. Moreover, the list of personality traits for kindergarten-age participants in the verbal guise task was reduced as discussed (c.f. section 4.2.3.1).⁴⁴

4.3.5 The administration of the task

The tasks were administered in a sequence in line with the re-piloting, i.e. firstly, the picture choosing task and the sound discrimination task were done. This was then followed by the picture naming task, the pair matching with the Filipino English recordings and then the pair matching task with the researcher. Finally, the verbal guise task was carried out. Selected participants took part in the focus group as well. The

⁴⁴ It was however not possible to pilot the focus group as there was very limited access to age-appropriate informants.

details of each task and the procedure involved have been described in the respective sections detailing each task. A training phase was included in the production and perception tasks which followed the same format as the actual task but with non-target items. The experiment only started when respondents had familiarised themselves with the procedure.

One noteworthy point is that all instructions were given in Cantonese, the native language of the informants. This requires some justification. It has been argued that a bilingual operates on a continuum of two language modes, the monolingual mode and the bilingual mode (Grosjean 1989; 2008). Depending on the degree of activation of the other language, the bilingual naturally moves along the continuum leaning towards either end. It is suggested that “the degree to which bilinguals are placed into monolingual or bilingual mode may therefore affect their language processing” (Zampini 2008: 240). This idea finds corroboration from a number of research papers which show that bilinguals who are closer to the bilingual mode in the continuum code-mix more and use more borrowings (Grosjean 1997; Treffers-Daller 1998). Of greater relevance, perhaps, are studies that reveal a compromised voice onset time (VOT) in bilingual L2 speech production as compared to native speakers (e.g. Flege 1987b; 1991; Flege and Eefting 1987; Flege and Hillenbrand 1984; Hazan and Boulakia 1993; Thornburgh and Ryalls 1998). The compromised VOT does not only apply to speakers’ second languages, it is in fact observed in speakers’ first languages as well (Flege 1987b; Major 1992). Since one of the main research aims is to determine participants’ underlying phonological competence with respect to Filipino English, one could argue, on the basis of language mode studies, that Cantonese should not have been used for data collection as it may have triggered informants’ engagement in the bilingual mode hence affecting the results. I would, however, argue that youngsters in Hong Kong, a highly multilingual society, are never in a pure monolingual mode. Given

that the following factors in (4.9) can all contribute to the positioning of an individual on the language mode continuum, it is safe to assume that the nature of a task which is related to English and the mere linguistic ambience where Cantonese is vividly present will lead the participant to lean towards the bilingual mode.

(4.9) Factors affecting one's position on the language mode continuum:

- (i) the participant(s), that is the person(s) being spoken or listened to (this includes such factors as language proficiency, language mixing habits and attitudes, usual mode of interaction, kinship relation, socioeconomic status, etc.),
 - (ii) the situation (physical location, presence of monolinguals, degree of formality and of intimacy),
 - (iii) the form and content of the message being uttered or listened to (language used, topic, type of vocabulary needed, amount of mixed language),
 - (iv) the function of the language act (to communicate information, to request something, to create a social distance between the speakers, to exclude someone, to take part in an experiment, etc.),
 - (v) and specific research factors (the aims of the study taking place (are they known or not?), the type and organization of the stimuli, the task used, etc.)
- (Grosjean 2008: 42)

Moreover, research has in fact suggested that the other language of a bilingual is never completely deactivated (Bialystok 2010; Dijkstra, Grainger, and van Heuven 1999; Grosjean 2008; Heredia 2008; Hermans, Bongaerts, De Bot and Schreuder 1998; Jared and Kroll 2001; Marian and Spivey 2003; Martin, Dering, Thomas and Thierry 2009; Riehl 2010; Rodriguez-Fornells, van der Lugt, Rotte, Britti, Heinze and Münte 2005). It is for these reasons that Cantonese was believed to be a justified means for delivering the instructions. Cantonese also has the additional advantage of ensuring participants understood and were able to follow the instructions.

4.4 Ethics

As mentioned earlier, consent was obtained from the parents/guardians of the

participants (see appendices 10 and 11). In addition, the participants in the secondary school group signed an assent form during the data collection phase, while the children in the kindergarten group offered their agreement to participate during data collection in the form of verbal assent. Participants were allowed to drop out at any point of the data collection if they no longer wanted to take part in the study. In fact, no informants dropped out once they had reached the data collection phase. All the data collected were kept anonymous to ensure the highest code of confidentiality was adhered to.

4.4.1 Debriefing

Upon the completion of the tasks, participants were given a two-page Chinese-English bilingual debriefing document. The document contains the exact details regarding the task that had been carried out, and information vis-à-vis the purpose of the study which is to investigate Filipino FDHs' potential influence on Hong Kong Chinese children's acquisition of L2 English phonology and how it interacts with attitudinal factors. A number of initial observations made were outlined in the document (see appendix 12). Furthermore, it contains the author's affiliation and contact details in case respondents had further questions about the study. As a gesture of gratitude, a participation certificate was issued for every informant to thank them for their time and cooperation.

4.5 Methods of Analysis

Not all of the data collected were used for analysis due to reasons including incomplete data, non-Cantonese use with parents, or unruly behaviour in the case of kindergarten informants. Three kindergarten children in the experimental group were excluded from the analyses of the perception and production tasks because they reported conversing with their parents in a language other than Cantonese (Dutch and English). Two kindergarten participants in the control group were excluded for the same reason (i.e. communicating with parents in a language other than Cantonese). One kindergarten

informant was excluded from the analyses for the production tasks due to unruly behaviour during the data collection.

One secondary school student in the experimental group was excluded from the analyses of the perception and production tasks due to incomplete data; another secondary school student participant in the control group was excluded for the same reason. Another secondary school student in the experimental group was excluded from the analyses for the same tasks because he reported communicating with his parents in Mandarin rather than Cantonese.

Data collected in paper format for the perception tasks was input into SPSS and turned into an average percentage score for statistical analyses; depending on the distribution of the data, parametric (i.e. analysis of variance (ANOVA)) or non-parametric measures (i.e. Kruskal–Wallis test, Mann–Whitney U test) were used to explore potential relationships between various independent factors (FDH employment, school group) and dependent factors (the scores participants obtained for each measure) (see chapter 5).

Oral data for the production tasks were recorded and transcribed in the global International Phonetic Alphabet (IPA) for analyses. A randomly selected 25% of the production data was cross-checked by a native English speaker with postgraduate linguistics training. No major discrepancies between the two sets of transcriptions were found in the process. However, due to the low production rate of Filipino-accented English, no statistical analyses were run with this set of data (see chapter 5 for a more detailed discussion).

Personality traits ratings for the four accents were input into SPSS. The ratings assigned

by the secondary school students and kindergarten participants were separated as the total number of traits the two groups rated was different. Independent t-tests were run with the average rating calculated for each accent and the independent factor, FDH employment. Each set of scores for each accent set was also fed into SPSS for one sample t-test to see if they differed significantly from the middle value 3 in the 5-point Likert scale.

Finally, due to the limitations of space, the post-vocalic-R items in the production tasks, the spontaneous speech recordings and data collected through the tagged-along questions in the verbal guise technique, the focus groups, parent and teacher questionnaires will not be analysed or reported on hereafter. I leave these data for future research.

4.6. Limitations

Due to the limitation imposed by children's limited literacy, attention span, and processing capacity (cf. Donaldson 1978; Ruff and Capozzoli 2003; Ruff and Lawson 1990), the tasks included had to be quite short, and consequently the number of tokens for tests (production and perception) is limited. Furthermore, the range of words selected for both production and perception is restricted due to children's limited knowledge of English at that age. As previously alluded to in earlier sections, more complex alternatives could not be used for very similar reasons.

In addition, although the focus group is a very useful tool for generating qualitative comments, its design does not allow generalisations to be made to encompass the rest of the population (Gamon 1992; Krueger and Casey 2000; 2009). Therefore, findings obtained from such a method will have to be viewed with caution.

Crucially, data obtained from the attitudinal part can only be linked statistically to find out whether they are related to speakers' production and perception in any way. No causal relationship can be determined; for instance, we cannot be sure that the children's non-production of Filipino-accented English is caused by their own or their parents' specific attitudes towards this kind of accent.

Apart from limitations in the task design and methods of analyses, other physical limitations also exist. As briefly discussed in section 4.3.3 and footnote 43, the study is limited to employing relevant Filipino English recordings from the first and only attempt as the Filipino English speaker unexpectedly left Hong Kong. Since no replacement could be found before the scheduled date of the data collection, the recordings of the first speaker were nonetheless used. Although there are no major flaws in this set of recordings, the stimuli for the sound discrimination AX³ task (section 4.2.1.2) could have been expanded to include more variations had there been another speaker available for further recordings. The current stimuli contain variations in pitch. Even though this is arguably on a par with realistic encounters since sounds are bound to alter in pitch in spontaneous utterances, stimuli with pitch being controlled for could allow us to investigate whether speakers' perceptions of the sounds in question are in any way confounded with this factor.

Another limitation has to do with the physical environment where the data were collected. As participants were contacted through different means (school or personal contact), it was not possible to collect all the data in one physical place. Essentially, participants who were contacted via schools took part in the study inside their respective schools, while personally contacted informants performed the task in private venues.

The author acknowledges that this was not an ideal arrangement,⁴⁵ but the difference in environment was unavoidable owing to the lack of resources and the limited time allocated for the research by collaborating schools. In spite of that, it is important to point out that every effort has been made to ensure that the atmosphere in which the study was carried out was not threatening or tense regardless of the physical differences in location. Related to that is the fact that some data were collected in one continuous session, especially from participants who were a personal contact of the researcher, while in other settings they were collected through several successive sessions.

Lastly, given the scope of the present study, the data collection made use of opportunity sampling (Brady 2006) whereby participants with most of the fitting attributes that the study aims to address were sought. Since the main dividing criteria as discussed above are school group (kindergarten vs secondary school students) and FDH employment (whether the participant's household have or have not employed a Filipino domestic helper), other factors including gender were not controlled for. Although it would be desirable to be able to take into account other factors including gender for further multidimensional analyses, due to the difficulty in locating participants with the very limited resources available for the current study, it was not possible to cater for extra dimensions however valuable they might be.

⁴⁵ Hay and Drager (2010), for example, claim that non-linguistic information including physical settings could impact upon linguistic performance. Their study shows that the mere presence of an artifact (a stuffed toy) which is associated with one particular dialect can trigger different performance in perception tasks.

Chapter 5. Findings

This section reports on the findings obtained from the various tasks employed in the study to answer the research questions outlined in section 2.5. The chapter is structured such that the discussion follows the order that each task was completed in and thus it begins with a summary of the results gathered from the perception instruments - the picture choosing task and the sound discrimination AX³ task. Next, I will proceed to list the findings of the production tasks which include the picture naming and the pair matching tasks. Finally, results gathered from the attitude measure, the verbal guise technique, are reported. The statistical significance level is set at a $p \leq 0.05$ level in line with social sciences conventions (Gigerenzer, Swijtink, Porter, Daston, Beatty and Kruger 1995; Larson-Hall 2010; Levine and Hullett 2002). That is to say, results in the following section are only considered significant when a probability value smaller than or equal to 0.05 is yielded.

5.1 Perception Tasks

The perception tasks which include a picture choosing task and a sound discrimination task were designed to address the first four research questions pertaining to participants' acquisition of the phonology of the four target English varieties (cf. section 2.5).

Findings generated from this instrument will also shed light on the compatibility of mainstream L2 phonology acquisition models in the context of input multiplicity.

5.1.1 *Picture choosing task*

The picture choosing task tapped into participants' perceptual knowledge of the four target varieties (Filipino, UK, HK and US). After listening to the stimulus played, informants had to choose a picture from a choice of four which included the option of "don't know/did not appear". The results gathered for the 25 words beginning with the

five target onsets (/f, v, p, t, k/) read in each of the four target accents will be reported individually in this section. Figures obtained from the statistical analyses along with the average scores participants attained will be provided. The section will end with a brief summary of the findings from all four accent sets.

5.1.1.1 Filipino-accented English set

A visual inspection was done through the plotting of a box plot to determine whether the data gathered fulfilled the normal distribution assumption necessary for parametric analyses (Larson-Hall 2010). Figure 5.1 reveals that the data for the 25 test

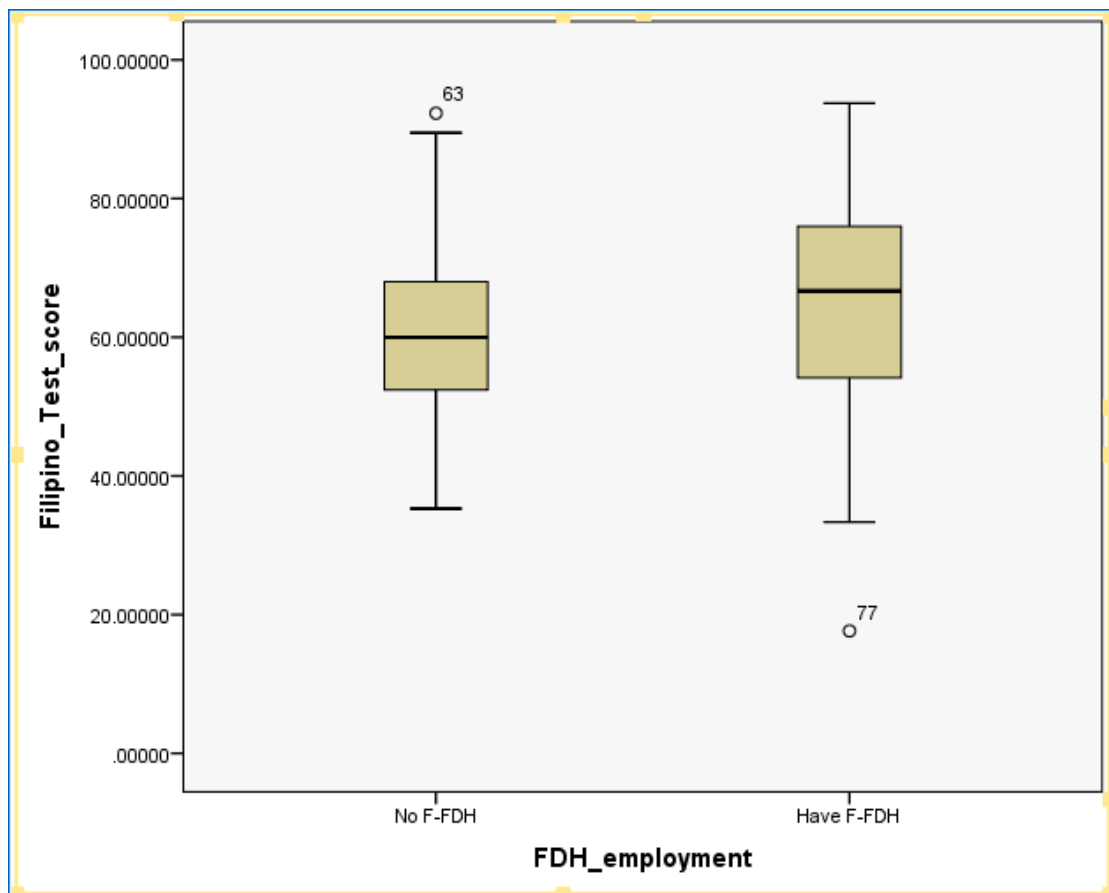


Figure 5.1 Box plot of the average scores for the Filipino set in the picture choosing task No F-FDH = the controls; Have F-FDH = participants whose household have a Filipino-FDH

words (five for each onset) is normally distributed, with the exception of informants 63 and 77. Therefore, these data were treated as outliers and were excluded from the subsequent analyses reported for this set of data. After ensuring that the normal

distribution assumption was met, a two-way ANOVA (analysis of variance) was run for the test score with *Filipino-FDH employment* and *School group* as independent variables and *Test-score* as the dependent variable. This analysis yielded the following results displayed in table 5.1.

Table 5.1 ANOVA table of the averages for the Filipino set in the picture choosing task

Tests of Between-Subjects Effects

Dependent Variable: Filipino_Test_score

Source	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	4.800	.004	.141	.891
Intercept	2682.005	.000	.968	1.000
School_group	8.125	.005*	.085	.805
FDH_employment	7.394	.008*	.078	.767
School_group x FDH_employment	.099	.754	.001	.061

a. R Squared = .141 (Adjusted R Squared = .111); b. Computed using alpha = .05

* $p \leq 0.05$

This table shows that statistically significant results (as marked by the asterisks) are obtained for both *School group* and *FDH employment* as independent factors. The *F-value* for *School group* is 8.125 at a significance value p of 0.005 with the *partial eta squared* η_p^2 of 0.085 indicating a medium effect size ($\eta_p^2 \geq 0.059$; Cohen 1988) with 8.5% of the observed variation explained by this factor, while the *F-value* for *FDH-employment* is 7.394 at a significance value p of 0.008 with the *partial eta squared* η_p^2 of 0.078, indicating a medium effect size and that 7.8% of the variation for this model is explained by this factor. That is to say, both independent variables, *School group* (whether the participant is in secondary school or kindergarten) and *FDH-employment* (whether the informants' parents employed a Filipino helper or not) are statistically related to the *Test score* of the Filipino set and this relationship is significant at a $p \leq 0.05$ level. In addition, no interaction between these two independent variables is found ($p = 0.754$). Viewing this in conjunction with table 5.1.1 which shows the mean scores of participants in various groups, we can see that informants whose household employed a Filipino domestic helper performed better than

the controls who did not have a Filipino helper at home (kindergarteners: experimental group 68.98 (range: 33.33 – 93.75) versus control group 62.77 (range: 35.71 – 89.47); secondary school students: experimental group 62.54 (range: 48.00 – 88.00) versus control group 54.72 (range: 35.29 – 72.00). At the same time, kindergarten children performed better than secondary school students in this set of stimuli (the former with FDH 68.98 versus the latter with FDH 62.54; kindergarten attendees without FDH 62.77 versus secondary school students without FDH 54.72).

Table 5.1.1 Means table for the Filipino set in the picture choosing task

Descriptive Statistics

Dependent Variable: Filipino_Test_score

School_group	FDH_employment	Mean	Std. Deviation	N
Secondary	No F-FDH	54.7208836	11.54434552	14
	Have F-FDH	62.5423200	10.47046200	29
	Total	59.9958058	11.31770161	43
Kindergarten	No F-FDH	62.7711745	12.49428338	20
	Have F-FDH	68.9820317	12.50360793	29
	Total	66.4469880	12.74767969	49
Total	No F-FDH	59.4563488	12.59181591	34
	Have F-FDH	65.7621759	11.88283102	58
	Total	63.4317615	12.46229156	92

5.1.1.2 British (UK) English set

The same procedure as described above for the Filipino-accented set was carried out with the current data of the 25 words read in a British accent. As can be seen from Figure 5.2, participant 77 is an outlier falling out of the normal cluster range. Hence, this case is excluded from the analysis detailed below.

Subsequent to the exclusion of informant 77 which ensured the normal distribution assumption was satisfied, a two-way ANOVA was run for the test score with *Filipino-FDH employment* and *School group* as independent variables and *Test-score* as the dependent variable. This analysis generated the results shown in table 5.2.

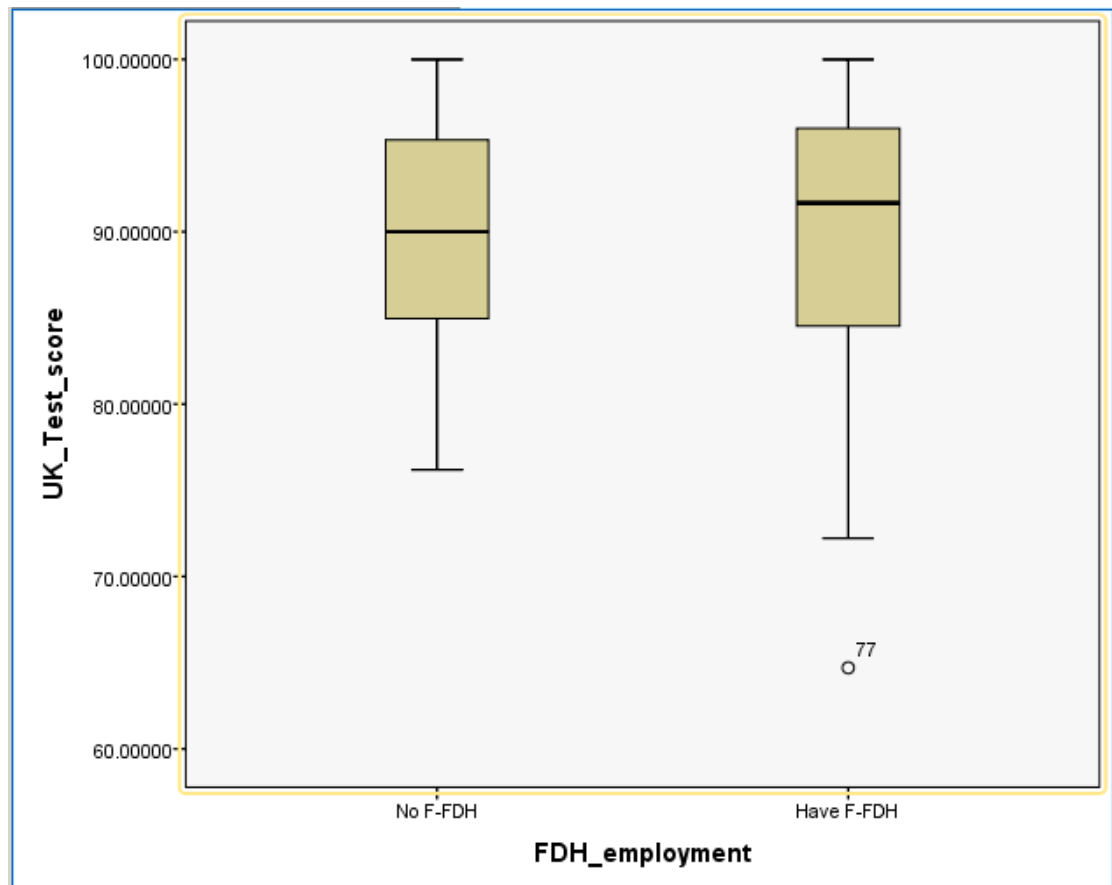


Figure 5.2 Box plot of the average scores for the UK set in the picture choosing task
 No F-FDH = the controls; Have F-FDH = participants whose household have a Filipino-FDH

Table 5.2 ANOVA table of the averages for the UK set in the picture choosing task

Tests of Between-Subjects Effects
 Dependent Variable: UK_Test_score

Source	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	9.522	.000	.243	.996
Intercept	16565.803	.000	.995	1.000
School_group	25.557	.000*	.223	.999
FDH_employment	.003	.955	.000	.050
School_group x FDH_employment	2.819	.097	.031	.383

a. R Squared = .243 (Adjusted R Squared = .217); b. Computed using alpha = .05

* $p \leq 0.05$

Table 5.2 indicates that a statistically significant result (i.e. $p \leq 0.05$) is obtained for the independent variable *School group* with *F-value* being 25.557 at a $p = 0.000$ level. The *partial eta squared* η_p^2 is 0.223 suggesting a large effect size ($\eta_p^2 \geq 0.138$) and that 22.3% of the variation can be accounted for by this factor. *Filipino employment* on the other hand did not reach significance with *F-value* being 0.003 and p equals to 0.955.

Moreover, there is no interaction effect observed between *School group* and *FDH employment* ($p = 0.097$). These results suggest that *School group* as an independent variable is the only factor that is significantly related to the dependent variable, the *Test score*. In combination with the means shown in table 5.2.1, it can be seen that the performance of students in the secondary school group in the UK set was better than that of the kindergarten children (secondary school students with FDH 95.07 (range: 80.00 – 100.00) versus kindergarten attendees with FDH 86.11 (range: 72.22 – 100.00); secondary school students without FDH 92.37 (range: 76.47 – 100.00) versus kindergarten informants without FDH 88.34 (range: 76.19 – 100.00). On the other hand, although there were differences between the average scores of participants whose parents employed a Filipino helper and those who did not, such discrepancies are not statistically significant.

Table 5.2.1 Means table for the UK set in the picture choosing task

Descriptive Statistics

Dependent Variable: UK_Test_score

School_group	FDH_employment	Mean	Std. Deviation	N
Secondary	No F-FDH	92.3769714	7.80778597	14
	Have F-FDH	95.0715779	5.01981470	29
	Total	94.1942642	6.10740249	43
Kindergarten	No F-FDH	88.3455424	6.53306100	21
	Have F-FDH	86.1119921	7.85419616	29
	Total	87.0500832	7.34243437	50
Total	No F-FDH	89.9581140	7.24089252	35
	Have F-FDH	90.5917850	7.94367212	58
	Total	90.3533067	7.65294234	93

5.1.1.3 Hong Kong (HK) English set

Figure 5.3 reveals that there are a number of outliers in the data of these 25 words read in a Hong Kong accent. Informants 18, 19, 28, 48 and 73 were hence excluded from the analyses to meet the normal distribution assumption necessary for an ANOVA analysis.

The two-way ANOVA analysis with *School group* and *FDH employment* as independent variables and *Test-score* as the dependent variable resulted in the following table 5.3.

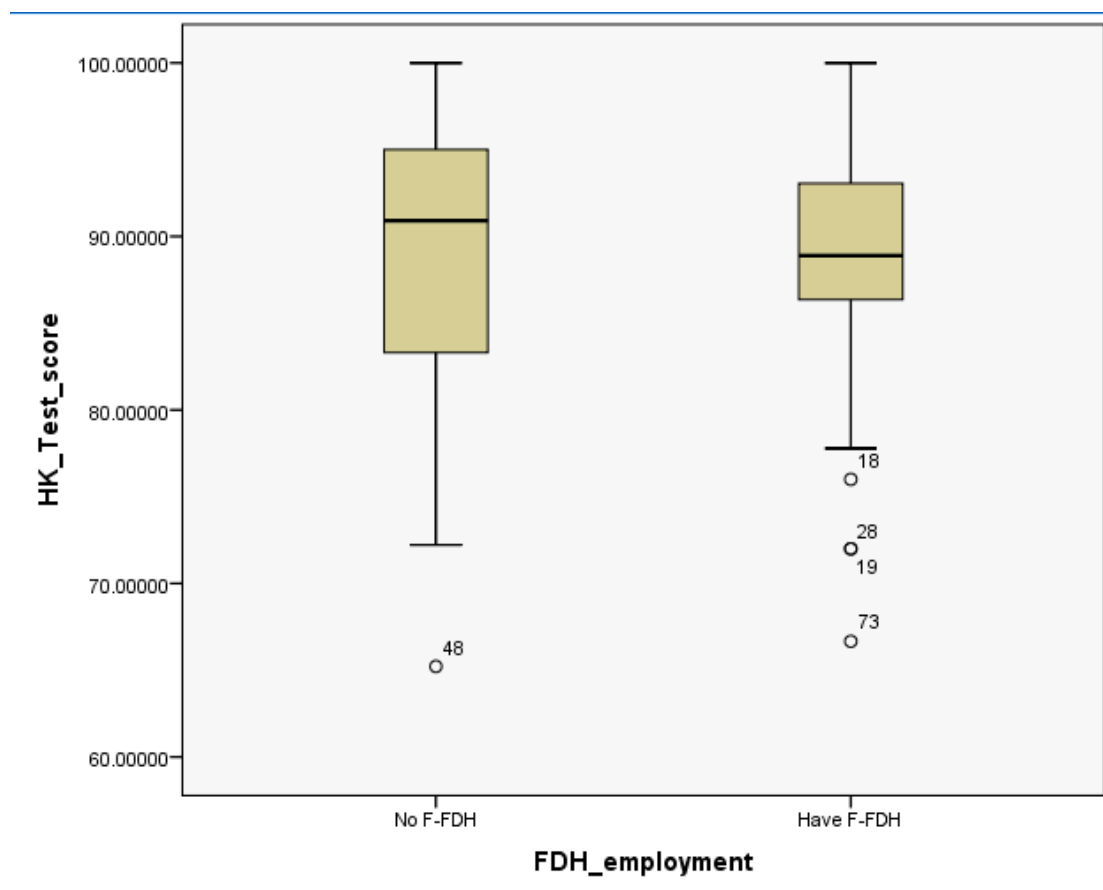


Figure 5.3 Box plot of the average scores for the HK set in the picture choosing task
 No F-FDH = the controls; Have F-FDH = participants whose household have a Filipino-FDH

Table 5.3 ANOVA table of the averages for the HK set in the picture choosing task

Tests of Between-Subjects Effects
 Dependent Variable: HK_Test_score

Source	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	.209	.890	.007	.088
Intercept	15967.921	.000	.995	1.000
School_group	.132	.717	.002	.065
FDH_employment	.187	.666	.002	.071
School_group x FDH_employment	.326	.570	.004	.087

a. R Squared = .007 (Adjusted R Squared = -.028); b. Computed using alpha = .05

* $p \leq 0.05$

This table reveals that none of the factors (*School group and FDH employment*) is significant in this analysis as the probability values are higher than 0.05 (*School group, $p = 0.717$; FDH employment, $p = 0.666$*). Furthermore, there is no interaction among the two independent variables ($p = 0.570$). These results suggest that the differences observed between the test scores as seen in table 5.3.1 are not statistically significant. In

other words, participants performed equally well on this set irrespective of their school group and Filipino contact profile.

Table 5.3.1 Means table for the HK set in the picture choosing task

Descriptive Statistics

Dependent Variable: HK_Test_score

School_group	FDH_employment	Mean	Std. Deviation	N
Secondary	No F-FDH	89.8275836	8.13199195	14
	Have F-FDH	89.5075760	5.55718423	26
	Total	89.6195787	6.47018826	40
Kindergarten	No F-FDH	89.2941015	7.86015613	20
	Have F-FDH	90.6626893	6.04208544	29
	Total	90.1040820	6.79800817	49
Total	No F-FDH	89.5137706	7.85451739	34
	Have F-FDH	90.1166358	5.79357814	55
	Total	89.8863277	6.61958155	89

5.1.1.4 American (US) English set

The same procedure was applied to the US data set as well; a box plot was produced for the identification of outliers. As a result, informant 75 had to be excluded from the analysis for this particular set as the score lies outside the range of the normal cluster as can be seen from figure 5.4.

A two-way ANOVA was then run to find out the potential relationship existing between the independent factors (*School group* and *Filipino employment*) and the dependent factor (*Test-score*). This analysis, as shown from the figures in table 5.4, reveals no statistically significant relationships between the variables in question since the significance values are all larger than 0.05 (*School Group*, $p = 0.405$, and *FDH employment*, $p = 0.269$). At the same time, no interaction is observed among the two factors ($p = 0.965$).

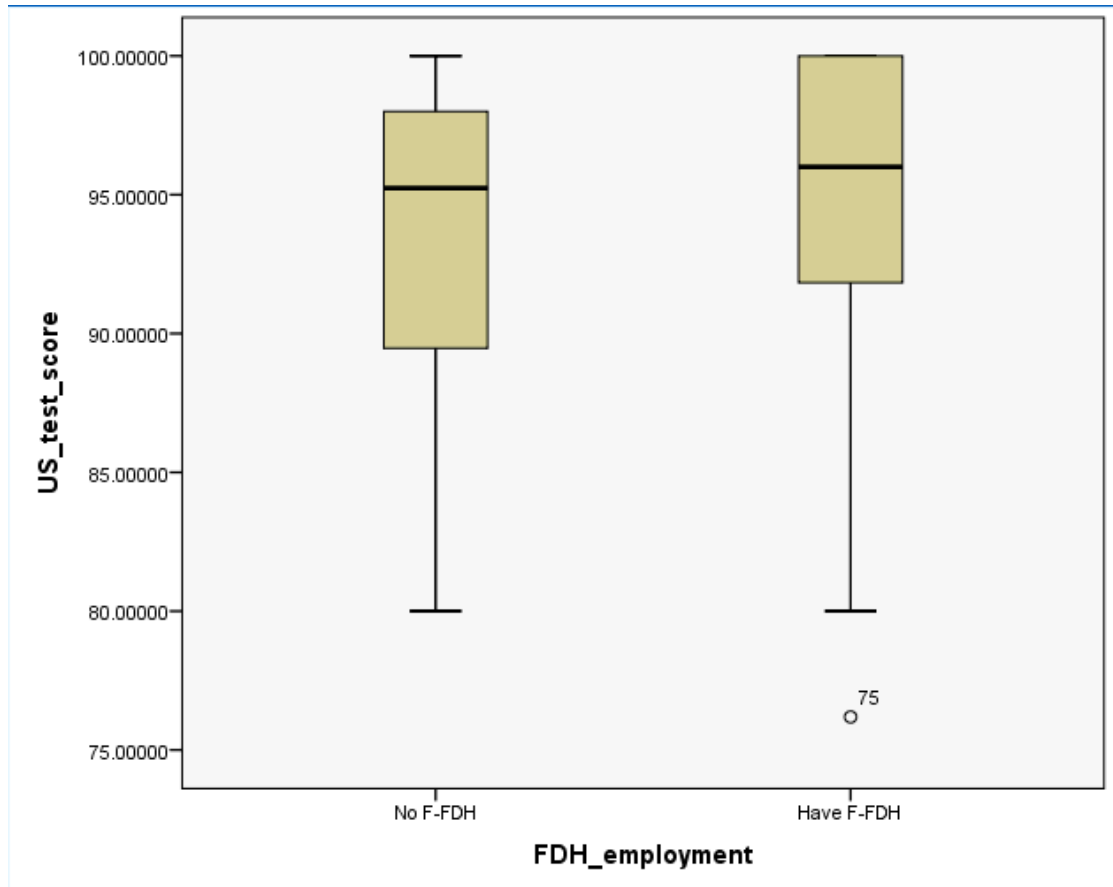


Figure 5.4 Box plot of the average scores for the US set in the picture choosing task
 No F-FDH = the controls; Have F-FDH = participants whose household have a Filipino-FDH

Table 5.4 ANOVA table of the averages for the US set in the picture choosing task
Tests of Between-Subjects Effects
 Dependent Variable: US_test_score

Source	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	.713	.547	.023	.196
Intercept	26076.645	.000	.997	1.000
School_group	.699	.405	.008	.131
FDH_employment	1.237	.269	.014	.196
School_group x FDH_employment	.002	.965	.000	.050

a. R Squared = .023 (Adjusted R Squared = -.009); b. Computed using alpha = .05

* $p \leq 0.05$

Considering these findings against the means table 5.4.1 suggest that the differences between various groups are not statistically significant for the US test-score. That is to say, participants in the experimental group and the control group performed at a similar level in this set of stimuli regardless of the school group they were in and the Filipino employment status in the household.

Table 5.4.1 Means table for the US set in the picture choosing task

Descriptive Statistics

Dependent Variable: US_test_score

School_group	FDH_employment	Mean	Std. Deviation	N
Secondary	No F-FDH	94.0982600	4.49810826	14
	Have F-FDH	95.5083593	5.54845881	29
	Total	95.0492572	5.21854245	43
Kindergarten	No F-FDH	93.1814771	6.20214534	21
	Have F-FDH	94.4830479	5.78563648	29
	Total	93.9363882	5.93713085	50
Total	No F-FDH	93.5481903	5.52912335	35
	Have F-FDH	94.9957036	5.64209568	58
	Total	94.4509405	5.61408542	93

5.1.1.5 Summary - picture choosing task

A series of two-way ANOVAs (Filipino-FDH employment and school group) ran for the test scores of the four respective accents in the picture choosing task show that significant results (i.e. $p \leq 0.05$) are yielded only with the Filipino-accented set for the two factors *Filipino employment* ($F= 7.394, p= 0.008, \eta_p^2 = 0.078$) and *School group* ($F= 8.125, p= 0.005, \eta_p^2 = 0.085$). *School group* is also a significant factor for the scores of the British set ($F= 25.557, p= 0.000, \eta_p^2 = 0.223$) but *Filipino employment* is not ($F= 0.003, p= 0.955$). The F values in all the other sets are not significant with either of the factors. Figures for the factors with respect to the score in the US set are as follows: *School group*: $F= 0.699, p= 0.405$, *Filipino employment*: $F= 1.237, p= 0.269$, while the values for the HK set are: *School group*: $F=0.132, p= 0.717$, *Filipino employment*: $F=0.187, p=0.666$. No interaction between the two independent variables is observed in any of the set. The group average scores are as displayed in tables 5.1.1-5.4.1. These tables in combination with the *F-values* and *p-values* show that participants in the experimental group (with Filipino-FDHs) performed better than informants in the control group only in the Filipino set. On the other hand, their performances in the other three sets (i.e. UK, HK, and US) did not differ significantly. These results suggest that all participants acquired the three English varieties present in Hong Kong (i.e. HK, UK, and US). In addition, participants whose household has employed a Filipino helper, but not the controls, acquired the Filipino variety as well.

These indicate that the predictions by L2 phonology acquisition models are largely right even in the context involving multiple varieties. The current findings suggest that learners who were exposed to the target input are able to acquire the phonological systems of those varieties.

5.1.2 Sound discrimination AX³ task

The sound discrimination task targeted the potential confusion pairs in Filipino-accented English (FE) that begin with the five onsets (/f, v, p, t, k/). In this task participants had to respond to three items per each onset; each of the items contained one target pair of stimuli which differ and two distracters which are identical. The results obtained for the target stimuli and the foils/distracters will be reported separately in this section. Figures gathered from the statistical analyses along with the average scores participants attained will be provided. The section will end with a brief summary of the findings gathered.

5.1.2.1 Target AX differentiations

Prior to conducting any statistical analysis, the data were submitted so as to compile a box plot analysis in line with the procedure for the previous task. As Figure 5.5 shows, the data for the different sound pairs used in this task are fairly normally distributed. Thus, an ANOVA analysis was carried out without the need for further data compilation.

A two-way ANOVA with the identical independent variables (*School group* and *FDH employment*) was run to explore the potential relationship among various factors in the task. The dependent variable in the current analysis is the *test-score* that participants obtained for the discrimination targets. This analysis yielded statistically significant results for both *School group* and *FDH employment* (see table 5.5). The *F-value* for *School group* is 10.934 at a significance level of 0.001. The partial eta squared value

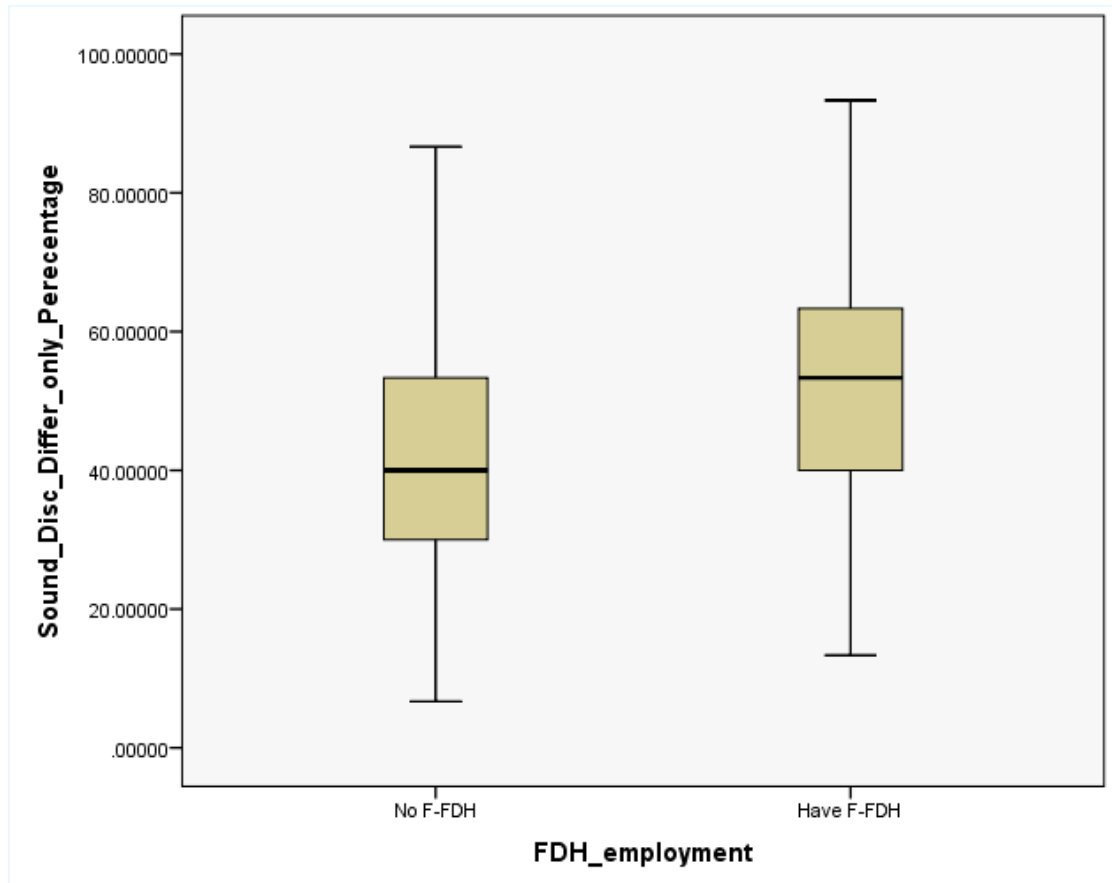


Figure 5.5 Box plot of the average scores for the target in the sound discrimination task
 No F-FDH = the controls; Have F-FDH = participants whose household have a Filipino-FDH

η_p^2 0.108 signals a medium effect which accounts for 10.8 % of the variation observed for this analysis. *FDH employment* has an *F-value* of 5.332 at a significance level of 0.023 with a marginally medium effect size as indicated by the partial eta squared value η_p^2 of 0.056. That is to say, 5.6 % of the variation in the analysis can be explained by this factor. No statistically significant interaction between the two independent factors is found ($p = 0.570$).

Table 5.5 ANOVA table of the averages for the target in the sound discrimination task

Tests of Between-Subjects Effects

Dependent Variable: Sound_Disc_Differ_only_Percentage

Source	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	6.029	.001	.167	.952
Intercept	627.384	.000	.875	1.000
School_group	10.934	.001*	.108	.905
FDH_employment	5.332	.023*	.056	.627
School_group x FDH_employment	.326	.570	.004	.087

a. R Squared = .167 (Adjusted R Squared = .140); b. Computed using alpha = .05

* $p \leq 0.05$

Table 5.5.1 lists the average scores of the participants in this task. Taken together with the statistics from table 5.5, these results indicate that secondary school students performed significantly better than kindergarten children (secondary school students with FDH 57.01 (range: 20.00 – 93.33) versus kindergarten attendees with FDH 46.00 (range: 13.33 – 86.66); secondary school students without FDH 50.47 (range: 20.00 – 86.66) versus kindergarten children 34.92 (range: 6.66 – 60.00). In addition, informants who have Filipino helpers outperformed those who do not (secondary school students: experimental group 57.01 versus control group 50.47; kindergarten attendees: experimental group 46.00 versus control group 34.92).

Table 5.5.1 Means table for the target in the sound discrimination task

Descriptive Statistics

Dependent Variable: Sound_Disc_Differ_only_Percentage

School_group	FDH_employment	Mean	Std. Deviation	N
Secondary	No F-FDH	50.4761905	19.16447670	14
	Have F-FDH	57.0114943	19.40268406	29
	Total	54.8837209	19.34576553	43
Kindergarten	No F-FDH	34.9206349	15.47826604	21
	Have F-FDH	46.0000000	18.96558690	30
	Total	41.4379085	18.29699310	51
Total	No F-FDH	41.1428571	18.46995188	35
	Have F-FDH	51.4124294	19.80946975	59
	Total	47.5886525	19.85854550	94

5.1.2.2 Foil differentiations

The box plot (Figure 5.6) unveiled a distribution that contains quite a number of outliers in both the experimental and the control group. This suggests that a non-parametric measure should be used instead. Therefore, the two independent variables, *School group* and *Filipino employment* used in the previous analyses were collapsed into one variable *School group x Filipino employment* so as to conduct the non-parametric alternative, a Kruskal–Wallis test which does not require data to be normally distributed (Howell 2002; Larson-Hall 2010). It has to be stressed that the reliability of results yielded will not be compromised by the use of such measures as the difference between a parametric and non-parametric analysis is a difference in the underlying mathematical assumptions

about data distribution and not in the degree of reliability (ibid.). The new grouping results in four different sets of speakers under the same variable, namely *secondary students with FDH (Sec WM)*, *secondary students without FDH (Sec WO)*, *kindergarten attendees with FDH (KG WM)*, and *kindergarten attendees without FDH (KG WO)*.

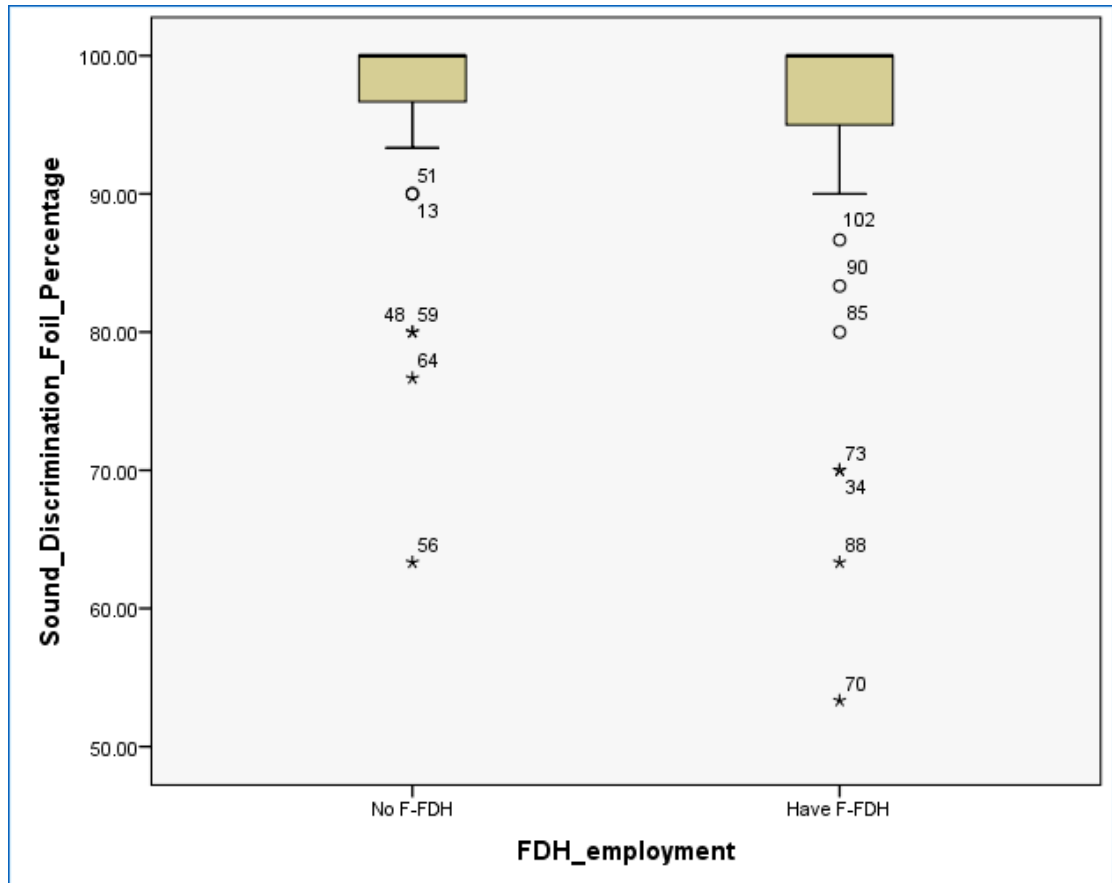


Figure 5.6 Box plot of the average scores for the foil in the sound discrimination task
No F-FDH = the controls; Have F-FDH = participants whose household have a Filipino-FDH

The Kruskal–Wallis test shows that the differences between the four groups in this measure are not statistically significant ($p = 0.351$) (table 5.6.2). Viewing this together with the means that participants in each group attained (table 5.6.3), indicates that their performance did not differ from one another.

Table 5.6.1 Mean rank table for the foil in the sound discrimination task

Ranks

Sch_and_FDH_Employment	N	Mean Rank
Sec_WO	14	54.96
Sec_WM	29	50.59
KG_WO	21	44.07
KG_WM	30	43.43
Total	94	

Table 5.6.2 Kruskal–Wallis test table for the foil in the sound discrimination task

Test Statistics^{a,b}

	Sound_Discrimination_Foil_Percentage
Chi-Square	3.279
Df	3
Asymp. Sig.	.351

a. Kruskal Wallis Test; b. Grouping Variable: Sch_and_FDH_Employment

* $p \leq 0.05$

Table 5.6.3 Means table for the foil in the sound discrimination task

Descriptives

Sound_Discrimination_Foil_Percentage

Sch_and_FDH_Employment	Mean	N	Std. Deviation	Minimum	Maximum	Range
Sec_WO	98.5714	14	3.12538	90.00	100.00	10.00
Sec_WM	97.3563	29	6.00128	70.00	100.00	30.00
KG_WO	94.1270	21	10.26887	63.33	100.00	36.67
KG_WM	93.4444	30	11.98605	53.33	100.00	46.67
Total	95.5674	94	9.16317	53.33	100.00	46.67

Follow-up multiple Mann–Whitney U tests were conducted to compare the averages for individual groups. Tables 5.6.4.1 and 5.6.4.2 show that the difference between secondary school students with and without FDHs is insignificant ($p = 0.533$). The difference between secondary school students who have no FDH and kindergarten attendees who also have no FDH is not significant ($p = 0.249$) (tables 5.6.4.3 and 5.6.4.4). The discrepancy between secondary school students without an FDH and kindergarten children with an FDH is also insignificant as tables 5.6.4.5 and 5.6.4.6 reveal ($p = 0.135$). Moreover, secondary school students with an FDH did not differ significantly from kindergarten attendees without an FDH ($p = 0.335$) (tables 5.6.4.7 and 5.6.4.8). Likewise, the difference between secondary school students with an FDH and kindergarten children with an FDH is not significant ($p = 0.244$) (tables 5.6.4.9 and 5.6.4.10). Finally, the discrepancy between kindergarten children who have an FDH and those who do not is also not significant ($p = 0.924$) (tables 5.6.4.11 and 5.6.4.12).

Table 5.6.4.1 Mean rank for the foil of secondary school students with and without FDHs in the sound discrimination task

Ranks

	Sch_and_FDH_Employment	N	Mean Rank	Sum of Ranks
Sound_Discrimination_Foil_Percentage	Sec_WO	14	23.36	327.00
	Sec_WM	29	21.34	619.00
	Total	43		

Table 5.6.4.2 Mann-Whitney U test table for the foil of secondary school students with and without FDHs in the sound discrimination task

Test Statistics^a

	Sound_Discrimination_Foil_Percentage
Mann-Whitney U	184.000
Wilcoxon W	619.000
Z	-.624
Asymp. Sig. (2-tailed)	.533

a. Grouping Variable: Sch_and_FDH_Employment

* $p \leq 0.05$

Table 5.6.4.3 Mean rank for the foil of secondary school students and kindergarten attendees who have no FDHs in the sound discrimination task

Ranks

	Sch_and_FDH_Employment	N	Mean Rank	Sum of Ranks
Sound_Discrimination_Foil_Percentage	Sec_WO	14	20.46	286.50
	KG_WO	21	16.36	343.50
	Total	35		

Table 5.6.4.4 Mann-Whitney U test table for the foil of secondary school students and kindergarten attendees who have no FDH in the sound discrimination task

Test Statistics^b

	Sound_Discrimination_Foil_Percentage
Mann-Whitney U	112.500
Wilcoxon W	343.500
Z	-1.375
Asymp. Sig. (2-tailed)	.169
Exact Sig. [2*(1-tailed Sig.)]	.249 ^a

a. Not corrected for ties.; b. Grouping Variable: Sch_and_FDH_Employment

* $p \leq 0.05$

Table 5.6.4.5 Mean rank for the foil of secondary school students without a FDH and kindergarten children with an FDH in the sound discrimination task

Ranks

	Sch_and_FDH_Employment	N	Mean Rank	Sum of Ranks
Sound_Discrimination_Foil_Percentage	Sec_WO	14	26.14	366.00
	KG_WM	30	20.80	624.00
	Total	44		

Table 5.6.4.6 Mann-Whitney U test table for the foil of secondary school students without an FDH and kindergarten children with an FDH in the sound discrimination task

Test Statistics^a

	Sound_Discrimination_Foil_Percentage
Mann-Whitney U	159.000
Wilcoxon W	624.000
Z	-1.493
Asymp. Sig. (2-tailed)	.135

a. Grouping Variable: Sch_and_FDH_Employment

* $p \leq 0.05$

Table 5.6.4.7 Mean rank for the foil of secondary school students with an FDH and kindergarten attendees without an FDH in the sound discrimination task

Ranks

Sch_and_FDH_Employment	N	Mean Rank	Sum of Ranks
Sound_Discrimination_Foil_Percentage Sec_WM	29	26.95	781.50
KG_WO	21	23.50	493.50
Total	50		

Table 5.6.4.8 Mann-Whitney U test table for the foil of secondary school students with an FDH and kindergarten attendees without an FDH in the sound discrimination task

Test Statistics^a

	Sound_Discrimination_Foil_Percentage
Mann-Whitney U	262.500
Wilcoxon W	493.500
Z	-.963
Asymp. Sig. (2-tailed)	.335

a. Grouping Variable: Sch_and_FDH_Employment

* $p \leq 0.05$

Table 5.6.4.9 Mean rank for the foil of secondary school students and kindergarten children with an FDH in the sound discrimination task

Ranks

Sch_and_FDH_Employment	N	Mean Rank	Sum of Ranks
Sound_Discrimination_Foil_Percentage Sec_WM	29	32.29	936.50
KG_WM	30	27.78	833.50
Total	59		

Table 5.6.4.10 Mann-Whitney U test table for the foil of secondary school students and kindergarten children with an FDH in the sound discrimination task

Test Statistics^a

	Sound_Discrimination_Foil_Percentage
Mann-Whitney U	368.500
Wilcoxon W	833.500
Z	-1.164
Asymp. Sig. (2-tailed)	.244

a. Grouping Variable: Sch_and_FDH_Employment

* $p \leq 0.05$

Table 5.6.4.11 Mean rank for the foil of kindergarten children who have an FDH and those who do not in the sound discrimination task

Ranks		N	Mean Rank	Sum of Ranks
Sound_Discrimination_Foil_Percentage	Sch_and_FDH_Employment KG_WO	21	26.21	550.50
	KG_WM	30	25.85	775.50
	Total	51		

Table 5.6.4.12 Mann-Whitney U test table for the foil of kindergarten children who have an FDH and those who do not in the sound discrimination task

Test Statistics ^a	
	Sound_Discrimination_Foil_Percentage
Mann-Whitney U	310.500
Wilcoxon W	775.500
Z	-.096
Asymp. Sig. (2-tailed)	.924

a. Grouping Variable: Sch_and_FDH_Employment

* $p \leq 0.05$

To validate these results, another two-way ANOVA (*School group* and *Filipino employment*) was run after excluding the outliers shown in figure 5.6.⁴⁶ Results were found that are congruent with the Kruskal–Wallis test and Mann-Whitney U tests (see tables 5.6.5 and 5.6.6). *School group* ($F = 0.084$; $p = 0.773$) and *Filipino employment* ($F = 1.653$; $p = 0.202$) are not significantly related to the *test-score* for this task. No statistically significant interaction is observed for the two factors ($p = 0.761$). These results confirm that both secondary and kindergarten participants in the experimental group and control group did not differ in their performance in the distracter set.

Table 5.6.5 ANOVA table for the foil in the sound discrimination task

Tests of Between-Subjects Effects

Dependent Variable: Sound_Discrimination_Foil_Percentage

Source	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	.636	.594	.024	.177
Intercept	136294.314	.000	.999	1.000
School_group	.084	.773	.001	.059
FDH_employment	1.653	.202	.021	.246
School_group x FDH_employment	.093	.761	.001	.060

a. R Squared = .024 (Adjusted R Squared = -.014); b. Computed using alpha = .05

* $p \leq 0.05$

⁴⁶ Bearing in mind that the normal distribution assumption is violated, this analysis was conducted only to explore potential discrepancies between non-parametric and parametric measures.

Table 5.6.5.1 Means table for the foil in the sound discrimination task

Descriptive Statistics

Dependent Variable: Sound_Discrimination_Foil_Percentage

School_group	FDH_employment	Mean	Std. Deviation	N
Secondary	No F-FDH	99.2308	1.99715	13
	Have F-FDH	98.3333	2.93972	28
	Total	98.6179	2.68490	41
Kindergarten	No F-FDH	99.1667	1.49071	16
	Have F-FDH	98.6111	2.39094	24
	Total	98.8333	2.07412	40
Total	No F-FDH	99.1954	1.70321	29
	Have F-FDH	98.4615	2.67821	52
	Total	98.7243	2.39025	81

5.1.2.3 Summary – sound discrimination AX³ task

A two-way ANOVA with the independent variables *Filipino-FDH employment* and *School group* was run for the target in the AX³ task. The group differences for that measure are significant with respect to both independent factors (Filipino-FDH employment: $F=5.332$, $p=0.023$, $\eta_p^2 = 0.056$; school group: $F=10.934$, $p=0.001$, $\eta_p^2 = 0.108$). There is also no interaction effect observed between the two independent variables in this task ($p = 0.570$). On the other hand, both non-parametric and parametric measures reveal no significant disparities regarding the foil with $p = 0.351$ in the Kruskal–Wallis test and F values of 1.653 ($p= 0.202$) for the Filipino employment factor and 0.084 ($p= 0.773$) for the factor school group in the ANOVA. Moreover, no interaction effect is observed ($p= 0.761$). In conjunction with the group means (see table 5.6.3), it can be seen that the experimental group could better distinguish the target sounds in comparison to the control. But the two groups did not differ significantly in their scores with respect to the foil. These results reinforce the findings from the picture choosing task, namely the fact that participants in the experimental group have acquired the Filipino variety. The fact that they did not differ from informants in the control group in the foil rules out the possibility that they are generally better at the task than the controls. However, their relatively low performance raises questions related to the nature of the acquisition of this variety. This point will be unpicked in detail in the

discussion chapter.

5.2 Production Tasks

Participants' performance on the two production tasks that aimed to address questions related to the acquisition of the various phonologies, in particular the Filipino variety, will be reported in this section (cf. the research questions in section 2.5). The results detailed in this section were compiled after informants' production had been transcribed and cross-checked as described in the methodology section (section 4.5). This section will end with a brief summary of the findings from both the picture naming task and the pair matching task.

5.2.1 Picture naming task

In this task participants named 25 pictures, five with each of the onsets /f, v, p, t, k/. Their production was transcribed and scrutinised for traces of Filipino accent. Overall, there was minimal production of Filipino-accented English (FE) by all participants. In the picture naming task, there were only two instances of FE by the kindergarten participants: in *fork* [p], and *volcano* [b], while FE was noted only once in *fork* [p] among secondary school students. There was no trace of this variety in the controls' production, which was not surprising since they were not exposed to the Filipino variety.

5.2.2 Pair matching task

Similar to the findings from the previous task, the production of Filipino-accented English was also virtually non-existent in the pair matching task. On average the kindergarteners produced FE sounds in the following proportion when attempting the task with the researcher: /f/, 0.0071%; /v/, 0.0235%; /p/, 0%; /t/, 0.0070%; and /k/, 0% (Table 5.6.6). The controls on the other hand produced no Filipino sounds except for /t/

(0.0113%) (Table 5.6.7).

Table 5.6.6: Kindergarten participants' average production of Filipino-accented English (with researcher)

Sounds	Group percentage of Filipino-accented speech
/f/	0.0071%
/v/	0.0235%
/p/	0%
/t/	0.00070%
/k/	0%

Table 5.6.7: Kindergarten controls' average production of Filipino-accented English (with researcher)

Sounds	Group percentage of Filipino-accented speech
/f/	0%
/v/	0%
/p/	0%
/t/	0.0113%
/k/	0%

The secondary school students also produced almost no Filipino-accented English when interacting with the researcher apart from /f/, and /p/ (0.0090%) (Table 5.6.8). The controls for this group produced no FE in the task (Table 5.6.9).

Table 5.6.8: Secondary participants' average production of Filipino-accented English (with researcher)

Sounds	Group percentage of Filipino-accented speech
/f/	0.0090%
/v/	0%
/p/	0.0090%
/t/	0%
/k/	0%

Table 5.6.9: Secondary controls' average production of Filipino-accented English (with researcher)

Sounds	Group percentage of Filipino-accented speech
/f/	0%
/v/	0%
/p/	0%
/t/	0%
/k/	0%

Likewise, the production rate of FE was low even in the condition which supposedly favours it (i.e. pair matching with Filipino recordings). In this condition kindergarteners produced FE /f/, 0.0075%; FE /v/, 0.0588%; FE /p/, 0.0317%; FE /t/, 0.0072%; and FE /k/, 0% of the time (Table 5.6.10). The kindergarten controls on the other hand produced FE /v/, 0.0196% of the time, and FE /t/ 0.0113% of the time, and no Filipino trace was found in other target sounds (Table 5.6.11).

Table 5.6.10: Kindergarten participants' average production of Filipino-accented English (with Filipino recordings)

Sounds	Group percentage of Filipino-accented speech
/f/	0.0075%
/v/	0.0588%
/p/	0.0317%
/t/	0.0072%
/k/	0%

Table 5.6.11: Kindergarten controls' average production of Filipino-accented English (with Filipino recordings)

Sounds	Group percentage of Filipino-accented speech
/f/	0%
/v/	0.0196%
/p/	0%
/t/	0.0113%
/k/	0%

The secondary school students produced 0.0181% of FE /f/, 0.0242% of FE /v/, 0.0227% of FE /p/, 0.0272% of FE /t/, and 0% of FE /k/ (Table 5.6.12). On the other hand, the controls in this group produced no Filipino-accented English at all (Table 5.6.13).

Table 5.6.12: Secondary participants' average production of Filipino-accented English (with Filipino recordings)

Sounds	Group percentage of Filipino-accented speech
/f/	0.0181%
/v/	0.0242%
/p/	0.0227%
/t/	0.0272%
/k/	0%

Table 5.6.13: Secondary controls' average production of Filipino-accented English (with Filipino recordings)

Sounds	Group percentage of Filipino-accented speech
/f/	0%
/v/	0%
/p/	0%
/t/	0%
/k/	0%

5.2.3 Summary – picture naming and pair matching tasks

On the basis of the production findings alone, participants seem to have somehow shunned acquiring the Filipino variety even though they were receiving ongoing input from this variety of English. However, as has been seen through the perception data, it is not the case that participants had not acquired this variety at all, despite them not producing it in the experimental setting. This discrepancy between perception and production data will be explored further in the discussion chapter.

5.3 Attitude Tasks

5.3.1 Verbal guise technique

The verbal guise technique aimed to elicit informants' attitudes towards the four target accents (Filipino, UK, HK and US). Subsequent to their listening to the four recorded paragraphs, participants had to assign personality trait ratings to the guise on a 5-point Likert scale. Personal attribute scores obtained for each of the four target accents will be reported individually in this section. The value *1* signifies the negative extreme of the spectrum, while *5* marks the positive extreme pole. Findings are reported in the order of the actual experiment, i.e. ratings for the Filipino accent set will be reported on first, followed by the UK, HK and US guises. Figures gathered from the statistical analyses along with the average scores participants obtained will also be provided. The section will end with a brief summary of the findings from all accent sets. Since the lists of the personality traits used for the kindergarten group and the secondary student group were not identical (i.e. the list was shorter for the younger group), their results will hence be reported separately in this section. Findings generated will allow us to address the fifth research question pertaining to participants' attitudes towards the various varieties of English (cf. section 2.5).

5.3.1.1 Kindergarten group

5.3.1.1.1 Filipino-accented English guise

A box plot was generated to determine the distribution of the data gathered from this measure (see figure 5.7). Participant 39 has been identified as an outlier through the visual examination. Therefore, this person was excluded from the analyses detailed here.

An independent-samples t-test was run with *FDH employment* as the independent variable and *average rating* as the dependent variable to explore the potential

relationship between these variables and whether there are significant differences between the experimental and control group in this regard.

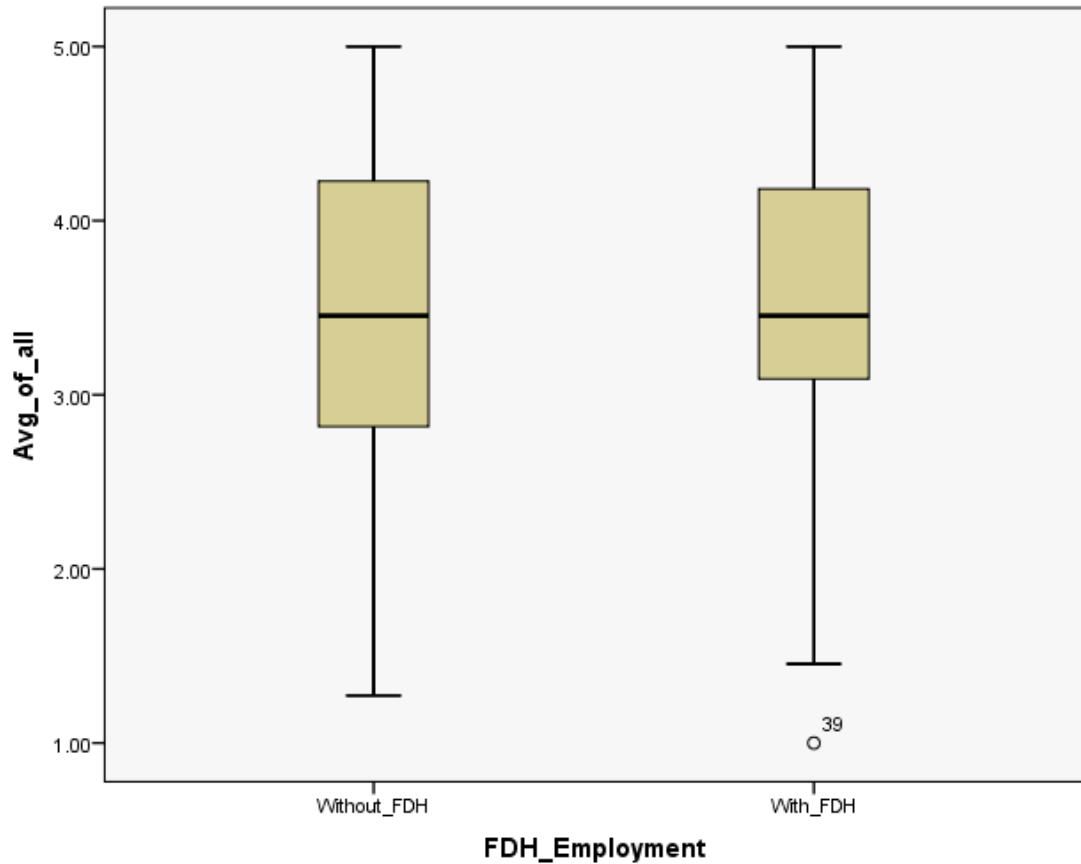


Figure 5.7 Box plot of the average rating for the Filipino guise
Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

Table 5.7 Means table of the average rating for the Filipino guise
Group Statistics

FDH_Employment		N	Mean	Std. Deviation	Std. Error Mean
Filipino_Avg_of_all	Without-FDH	23	3.4190	1.04149	.21717
	With-FDH	32	3.5455	.88291	.15608

Table 5.7.1 Independent-samples t-tests table of the average rating for the Filipino guise

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Avg_of_all	Equal variances assumed	.611	.438	-.486	53	.629	-.12648	.26023	-.64843	.39547
	Equal variances not assumed			-.473	42.542	.639	-.12648	.26743	-.66598	.41302

* $p \leq 0.05$

As table 5.7.1 shows, there are no significant relationships found in this analysis ($t = -0.473, p = 0.639, df = 42.542$) indicating that the difference observed in table 5.7 (with FDH 3.54 (range: 1.45 – 5.00) versus without FDH 3.41 (range: 1.27 – 5.00)) is not statistically significant. The effect size d is calculated by dividing the standard deviation of the group that has equal variance in its distribution (i.e. the control group in this case) by the mean difference. The calculation yielded a d of 8.234, signaling a large effect size ($d \geq 0.8$, Cohen 1992). In other words, the two groups' ratings are not statistically different from each other. Two separate one-sample t-tests were conducted to investigate whether informants' ratings are significantly different from the value 3, which is the middle point of the 1-5 Likert scale used for the task. Tables 5.7.1.1 and 5.7.1.2 display the results for participants in the experimental group. These tables indicate that the average scores informants gave in the set are significantly different from the middle value 3 ($t = 3.495, p = 0.001, df = 31$) with a large effect size ($d = 1.61$). Tables 5.7.1.3 and 5.7.1.4, on the other hand, show that the average ratings controls assigned to the speaker of this set were not significantly different from the middle 3 value ($t = 1.929, p = 0.067, df = 22$). Nonetheless the effect size is large ($d = 2.48$) so the result could be interpreted as a marginally significant tendency which sets itself apart from middle value 3.

Table 5.7.1.1 Means table of the average rating for the Filipino guise by the exp. group
One-Sample Statistics (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
Filipino Avg_of_all	32	3.5455	.88291	.15608

Table 5.7.1.2 One-sample t-tests of the average rating for the Filipino guise by the exp. group
One-Sample Test: (experimental group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Filipino Avg_of_all	3.495	31	.001*	.54545	.2271	.8638

* $p \leq 0.05$

Table 5.7.1.3 Means table of the average rating for the Filipino guise by the control group

One-Sample Statistics (control group)

	N	Mean	Std. Deviation	Std. Error Mean
Filipino Avg_of_all	23	3.4190	1.04149	.21717

Table 5.7.1.4 One-sample t-tests of the average rating for the Filipino guise by the control group

One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Filipino Avg_of_all	1.929	22	.067	.41897	-.0314	.8693

* $p \leq 0.05$

5.3.1.1.2 British (UK) English guise

The box plot inspection revealed a few outliers in the experimental group (Figure 5.8).

Informants 31, 35, 45, 49, 51 are henceforth excluded from the analyses.

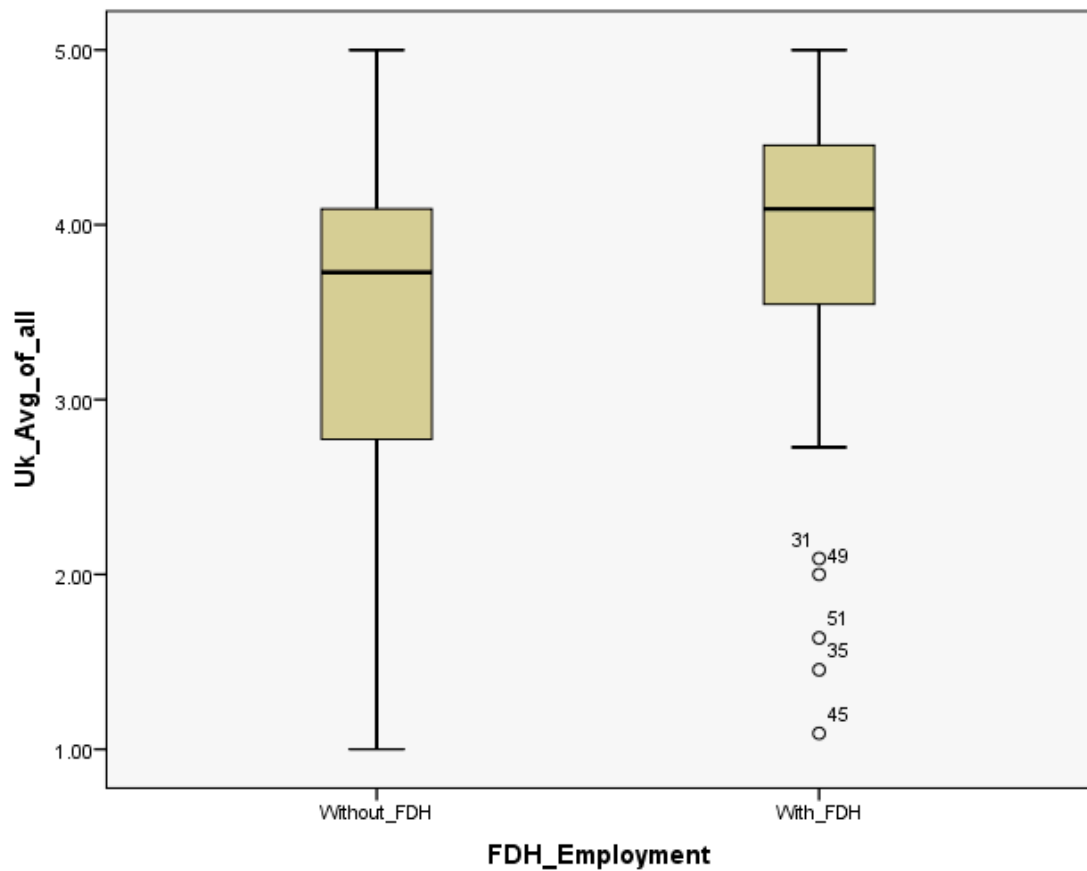


Figure 5.8 Box plot of the average rating for the UK guise

Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

An independent-samples t-test was run with *FDH employment* as the independent variable and *average rating* as the dependent variable to explore the relationship between them. Table 5.8.1 tells us that the two groups are significantly different in their ratings for the UK accent guise ($t = -2.663, p = 0.012, df = 33.840$) with a large effect size indicated by the d of 4.24. Viewing these together with the means in table 5.8, it can be seen that the rating which the experimental group (4.09, range: 2.73 – 5.00) assigned is significantly more positive than that of the control group (3.47, range: 1.00 – 5.00).

Table 5.8 Means table of the average rating for the UK guise
Group Statistics

	FDH_Employment	N	Mean	Std. Deviation	Std. Error Mean
Uk_Avg_of_all	Without_FDH	23	3.4704	.99346	.20715
	With_FDH	28	4.0942	.57893	.10941

Table 5.8.1 Independent-samples t-tests table of the average rating for the UK guise

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Uk_Avg_of_all	Equal variances assumed	7.091	.010	-2.798	49	.007	-.62380	.22297	-1.07188	-.17572
	Equal variances not assumed			-2.663	33.840	.012*	-.62380	.23427	-1.09997	-.14763

* $p \leq 0.05$

Parallel to the analysis of the previous guise, two one-sample t-tests were carried out to identify whether the ratings by the two groups are significantly different from the middle value 3. Results listed in tables 5.8.1.1 and 5.8.1.2 show that the average rating the experimental group assigned for this guise is significantly different from the middle value 3 ($t = 10.001, p = 0.000, df = 27$) with a d of 0.52 indicating a medium effect size ($d = 0.5$, Cohen 1992). Similarly, tables 5.8.1.3 and 5.8.1.4 indicate that the rating the controls provided is also significantly different from the middle value of the 5-point Likert scale ($t = 2.271, p = 0.033, df = 22$) with a large effect size ($d = 2.11$).

Table 5.8.1.1 Means table of the average rating for the UK guise by the exp. group

One-Sample Statistics: (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
Uk_Avg_of_all	28	4.0942	.57893	.10941

Table 5.8.1.2 One-sample t-tests of the average rating for the UK guise by the exp. group

One-Sample Test: (experimental group)

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Uk_Avg_of_all	10.001	27	.000*	1.09416	.8697	1.3186

* $p \leq 0.05$

Table 5.8.1.3 Means table of the average rating for the UK guise by the control group

One-Sample Statistics: (control group)

	N	Mean	Std. Deviation	Std. Error Mean
Uk_Avg_of_all	23	3.4704	.99346	.20715

Table 5.8.1.4 One-sample t-tests of the average rating for the UK guise by the control group

One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Uk_Avg_of_all	2.271	22	.033*	.47036	.0408	.9000

$p \leq 0.05$

5.3.1.1.3 Hong Kong (HK) English guise

The visual inspection procedure revealed no special anomalies in the data distribution.

Therefore, analyses were carried out without further data compilation.

The independent-samples t-test (independent variable: *FDH employment*; dependent

variable: *average rating*) conducted shows no statistically significant differences

between the ratings of participants in the experimental group (3.62, range: 1.00 – 5.00)

and that of the control group (3.60, range: 1.00 – 5.00) with $t = -0.054$, $p = 0.957$, $df =$

48.395, $d = 3.63$ (a large effect size) (see tables 5.9 and 5.9.1).

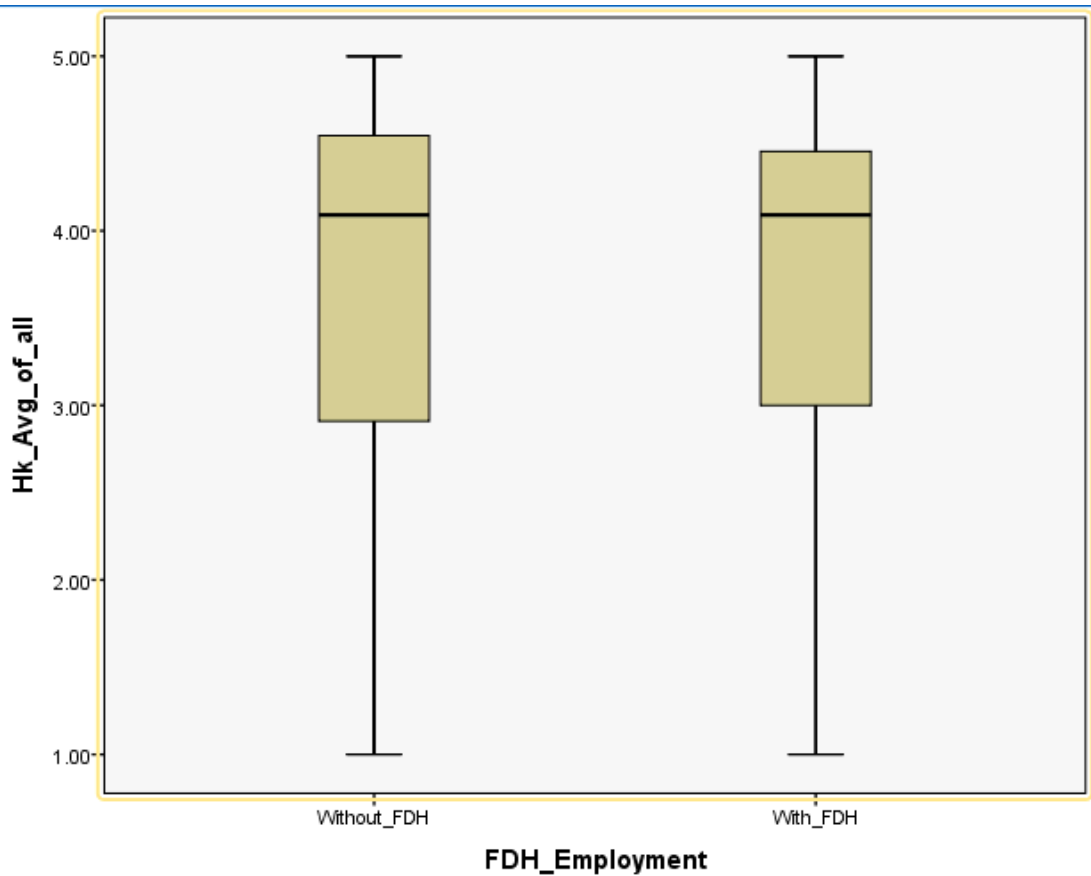


Figure 5.9 Box plot of the average rating for the HK guise

Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

Table 5.9 Means table of the average rating for the HK guise

Group Statistics

	FDH_Employment	N	Mean	Std. Deviation	Std. Error Mean
Hk_Avg_of_all	Without_FDH	23	3.6087	1.12530	.23464
	With_FDH	33	3.6253	1.15971	.20188

Table 5.9.1 Independent-samples t-tests table of the average rating for the HK guise

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
Hk_Avg_of_all	Equal variances assumed	.003	.957	-.053	54	.958	-.01665	.31123	-.64063	.60734	
	Equal variances not assumed			-.054	48.395	.957	-.01665	.30953	-.63888	.60558	

$$p \leq 0.05$$

The results for the two one-sample t-tests carried out to determine whether groups' ratings are significantly different from the middle point value 3 are listed in tables 5.9.1.1 –5.9.1.4. The average personality traits rating by the experimental group is

significantly different from the middle value 3 as can be seen from tables 5.9.1.1 and 5.9.1.2 ($t = 3.098$, $p = 0.004$, $df = 32$, $d = 1.85$ (a large effect size)). The average ratings of control group informants are also significantly different from 3 (see tables 5.9.1.3 and 5.9.1.4) with a t value of 2.594, p of 0.017, df of 22, and d of 1.84 (large effect size).

Table 5.9.1.1 Means table of the average rating for the HK guise by the exp. group
One-Sample Statistics: (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
Hk_Avg_of_all	33	3.6253	1.15971	.20188

Table 5.9.1.2 One-sample t-tests of the average rating for the HK guise by the exp. group
One-Sample Test: (experimental group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Hk_Avg_of_all	3.098	32	.004*	.62534	.2141	1.0366

$p \leq 0.05$

Table 5.9.1.3 Means table of the average rating for the HK guise by the control group
One-Sample Statistics: (control group)

	N	Mean	Std. Deviation	Std. Error Mean
Hk_Avg_of_all	23	3.6087	1.12530	.23464

Table 5.9.1.4 One-sample t-tests of the average rating for the HK guise by the control group
One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Hk_Avg_of_all	2.594	22	.017*	.60870	.1221	1.0953

$p \leq 0.05$

5.3.1.1.4 American (US) English guise

The box plot shown in Figure 5.10 indicates that the data are relatively normally distributed, hence deeming a parametric analysis possible without the need for further data compilation. The independent-samples t-test (independent variable: *FDH* employment; dependent variable: *average rating*) shows that the two groups do not differ significantly in their rating for the US guise ($t = -1.177$, $p = 0.246$, $df = 38.911$, d

= 3.31 (a large effect size)) with the experimental group having a mean of 3.66 (range: 1.00 – 5.00), while the control group has an average of 3.24 (range: 1.00 – 5.00) (see tables 5.10 and 5.10.1).

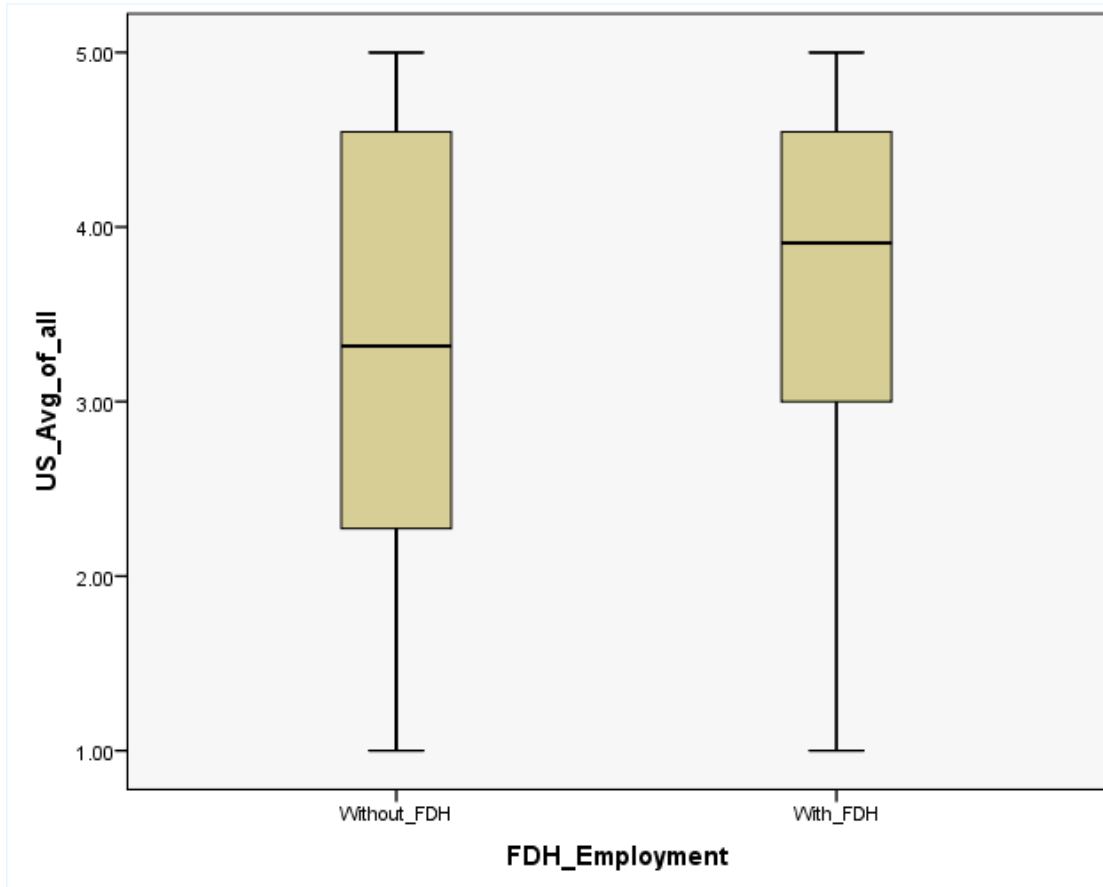


Figure 5.10 Box plot of the average rating for the US guise

Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

Table 5.10 Means table of the average rating for the US guise

Group Statistics

	FDH_Employment	N	Mean	Std. Deviation	Std. Error Mean
US_Avg_of_all	Without_FDH	22	3.2479	1.38701	.29571
	With_FDH	33	3.6667	1.13720	.19796

Table 5.10.1 Independent-samples t-tests table of the average rating for the US guise

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
US_Avg_of_all	Equal variances assumed	1.718	.196	-1.225	53	.226	-.41873	.34191	-1.10451	.26704
	Equal variances not assumed			-1.177	38.911	.246	-.41873	.35586	-1.13857	.30111

$p \leq 0.05$

Two one-sample t-tests were then conducted with each of the groups to find out whether their respective ratings are significantly different from the middle value 3. Tables 5.10.1.1 – 5.10.1.2 list details of this analysis for the experimental group. It can be seen that the rating assigned by this group is significantly different from 3 ($t = 3.368$, $p = 0.002$, $df = 32$, $d = 1.70$ (a large effect size)). On the other hand, the same analysis fails to reach significance for the control group. That is to say, the rating that the controls assigned does not differ from 3 in a statistically significant manner ($t = 0.838$, $p = 0.411$, $df = 21$, $d = 5.59$ (a large effect size)) (see tables 5.10.1.3 – 5.10.1.4).

Table 5.10.1.1 Means table of the average rating for the US guise by the exp. group
One-Sample Statistics: (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
US_Avg_of_all	33	3.6667	1.13720	.19796

Table 5.10.1.2 One-sample t-tests of the average rating for the US guise by the exp. group
One-Sample Test: (experimental group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
US_Avg_of_all	3.368	32	.002*	.66667	.2634	1.0699

$p \leq 0.05$

Table 5.10.1.3 Means table of the average rating for the US guise by the control group
One-Sample Statistics: (control group)

	N	Mean	Std. Deviation	Std. Error Mean
US_Avg_of_all	22	3.2479	1.38701	.29571

Table 5.10.1.4 One-sample t-tests of the average rating for the US guise by the control group
One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
US_Avg_of_all	.838	21	.411	.24793	-.3670	.8629

$p \leq 0.05$

5.3.1.1.5 Summary – verbal guise task: kindergarten group

Among the ratings for the four accent sets, the UK guise is the only set where the ratings of the experimental and control group differed significantly ($t = -2.663$, $p =$

0.012, $df = 33.840$, $d = 4.24$). In that case, the experimental group rated the UK accent significantly more positively than the control group (4.09 versus 3.47). On the other hand, most ratings by both of the groups are significantly different from the middle value 3 in the 5-point Likert scale with the exception of the ratings for the Filipino set by the control group which yielded a marginally significant outcome ($t = 1.929$, $p = 0.067$, $df = 22$, $d = 2.48$) and the US set rating by the same group ($t = 0.838$, $p = 0.411$, $df = 21$, $d = 5.59$). The ratings for the four accents all incline towards the positive end of the Likert scale. The overall rank for the four different accents goes as follows for the experimental group: UK 4.0942 > US 3.6667 > HK 3.6253 > Filipino 3.5455. The rank assigned by the control group is as follows: HK 3.6087 > UK > 3.4704 > Filipino 3.4190 > US 3.2479. The ranking after collapsing the groups is as follows: UK 3.8128 > HK 3.6185 > US 3.4992 > Filipino 3.4926. These findings indicate that children at this age do in fact have varying attitudes towards varieties of English with a preference for inner circle varieties (except for the control group). The positive attitude participants have towards the Filipino variety, on the other hand, made their non-production of Filipino-accented speech quite puzzling given our knowledge of speech accommodation theory (e.g. Beebe and Giles 1984; Giles, Coupland, and Coupland 1991).

5.3.1.2 Secondary school group

5.3.1.2.1 Filipino-accented English guise

A procedure identical to that used for the previous tasks was taken to explore the distribution of the data in this measure. As Figure 5.11 shows, the data are largely normally distributed except for informant 35. Thus, this case was taken out of the analyses reported for this guise.

As shown on table 5.11.1, there is a statistically significant difference observed in this analysis with *FDH employment* as the independent variable and *average ratings* as the

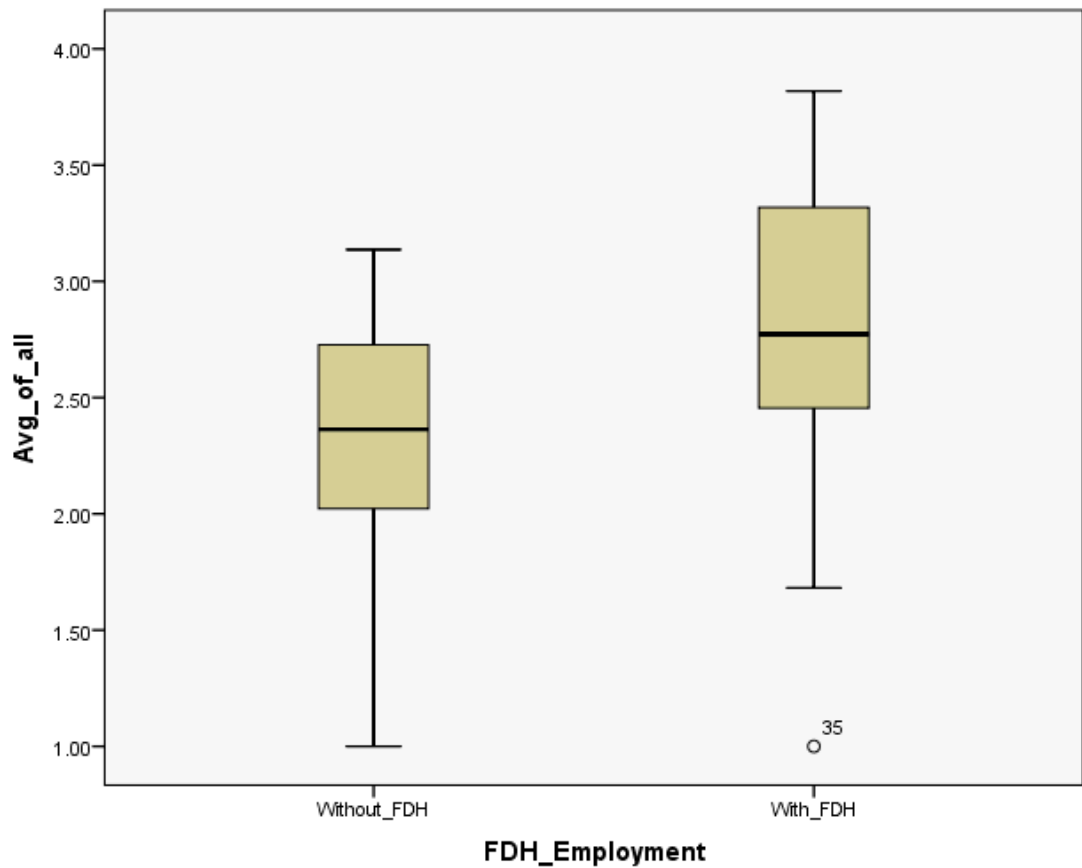


Figure 5.11 Box plot of the average rating for the Filipino guise
 Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

dependent variable ($t = -2.645, p = 0.012, df = 32.979, d = 1.18$ (a large effect size)).

In conjunction with the means shown in Table 5.11, it can be seen that the average rating the experimental group assigned (2.8245, range: 1.68 – 3.82) to the Filipino accent is higher than that rated by the control group (2.3352, range: 1.00 – 3.14).

Table 5.11 Means table of the average rating for the Filipino guise
 Group Statistics

	FDH_Employment	N	Mean	Std. Deviation	Std. Error Mean
Filipino	Without_FDH	16	2.3352	.57851	.14463
Avg_of_all	With_FDH	29	2.8245	.62072	.11526

Table 5.11.1 Independent-samples t-tests table of the average rating for the Filipino guise

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Avg_of_all	Equal variances assumed	.251	.619	-2.591	43	.013	-.48922	.18882	-.87002	-.10843
	Equal variances not assumed			-2.645	32.979	.012*	-.48922	.18494	-.86550	-.11295

$p \leq 0.05$

To find out whether the rating scores differ statistically from the middle value 3 of the 5-point Likert scale, two one-sample t-tests were carried out. Tables 5.11.1.1 and 5.11.1.2 show that the average rating (2.8245) by the experimental group does not differ significantly from 3 ($t = -1.523$, $p = 0.139$, $df = 28$, $d = 3.53$ (a large effect size)). The average rating by the control group (2.3352), on the other hand, is significantly different from the middle value 3 as tables 5.11.1.3 and 5.11.1.4 show ($t = -4.596$, $p = 0.000$, $df = 15$, $d = 0.87$ (a large effect size)) in that it is significantly lower than the value 3.

Table 5.11.1.1 Means table of the average rating for the Filipino guise by the exp. group
One-Sample Statistics: (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
Filipino Avg_of_all	29	2.8245	.62072	.11526

Table 5.11.1.2 One-sample t-tests of the average rating for the Filipino guise by the exp. group
One-Sample Test: (experimental group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Filipino Avg_of_all	-1.523	28	.139	-.17555	-.4117	.0606

$p \leq 0.05$

Table 5.11.1.3 Means table of the average rating for the Filipino guise by the control group
One-Sample Statistics: (control group)

	N	Mean	Std. Deviation	Std. Error Mean
Avg_of_all	16	2.3352	.57851	.14463

Table 5.11.1.4 One-sample t-tests of the average rating for the Filipino guise by the control group

One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Avg_of_all	-4.596	15	.000*	-.66477	-.9730	-.3565

$p \leq 0.05$

5.3.1.2.2 British (UK) English guise

In accordance with previous procedures, an inspection of the visual representation of the data was conducted to analyse its distribution. Figure 5.12 shows that case 20 is an outlier falling outside the normal range; hence it was excluded from subsequent analyses reported here.

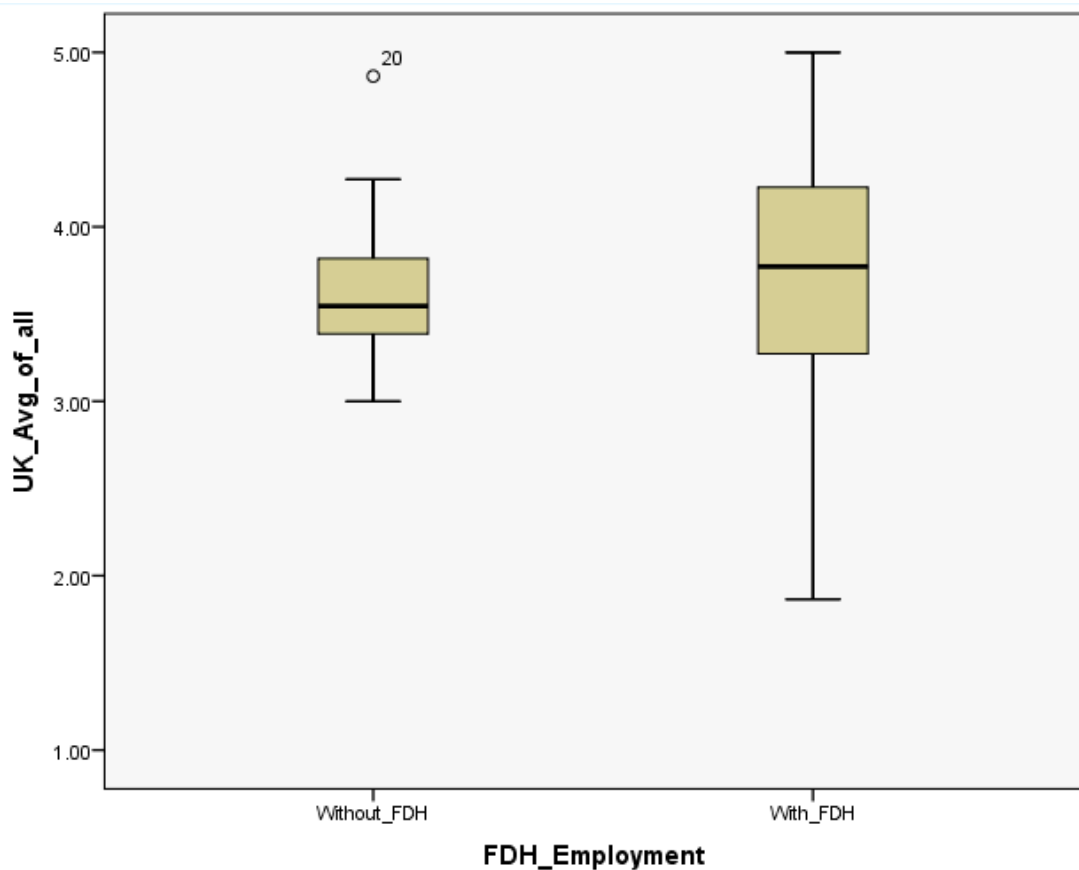


Figure 5.12 Box plot of the average rating for the UK guise

Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

Results from the independent-samples t-test, using *FDH employment* as the independent

factor and the *average rating* as the dependent variable, show no statistically significant differences between the experimental group (3.7379, range: 1.86 – 5.00) and control group (3.5485, range: 3.00 – 4.27) ($t = -1.244$, $p = 0.220$, $df = 42.999$, see table 5.12.1). The effect size d is calculated using the standard deviation of the experimental group this time, as its variation is uniform. The value yielded from this calculation, 3.62, indicates a large effect size.

Table 5.12 Means table of the average rating for the UK guise

Group Statistics

	FDH_Employment	N	Mean	Std. Deviation	Std. Error Mean
UK_Avg_of_all	Without_FDH	15	3.5485	.33511	.08652
	With_FDH	30	3.7379	.68600	.12525

Table 5.12.1 Independent-samples t-tests table of the average rating for the UK guise

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK_Avg_of_all	Equal variances assumed	6.475	.015	-1.007	43	.320	-.18939	.18813	-.56880	.19001
	Equal variances not assumed			-1.244	42.999	.220	-.18939	.15223	-.49639	.11760

$p \leq 0.05$

The results of the two one-sample t-tests used to determine the difference between the groups' average ratings and the middle value 3 are shown in tables 5.12.1.1 – 5.12.1.4. The rating provided by the experimental group differs significantly from 3 as can be seen through tables 5.12.1.1 and 5.12.1.2 ($t = 5.891$, $p = 0.000$, $df = 29$, $d = 0.92$ (a large effect size)). Likewise, tables 5.12.1.3 and 5.12.1.4 show that the control group's rating is significantly different from 3 as signaled by the p value of 0.000 ($t = 6.339$, $df = 14$, $d = 0.61$ (a medium effect size)).

Table 5.12.1.1 Means table of the average rating for the UK guise by the exp. group

One-Sample Statistics: (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
UK_Avg_of_all	30	3.7379	.68600	.12525

Table 5.12.1.2 One-sample t-tests of the average rating for the UK guise by the exp. group

One-Sample Test: (experimental group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
UK_Avg_of_all	5.891	29	.000*	.73788	.4817	.9940

$p \leq 0.05$

Table 5.12.1.3 Means table of the average rating for the UK guise by the control group

One-Sample Statistics: (control group)

	N	Mean	Std. Deviation	Std. Error Mean
UK_Avg_of_all	15	3.5485	.33511	.08652

Table 5.12.1.4 One-sample t-tests of the average rating for the UK guise by the control group

One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
UK_Avg_of_all	6.339	14	.000*	.54848	.3629	.7341

$p \leq 0.05$

5.3.1.2.3 Hong Kong (HK) English guise

Since data are normally distributed in this accent guise (see figure 5.13), analyses were performed without preparatory data compilation.

The independent-samples t-test with *FDH employment* as the independent variable and the *average rating* as the dependent variable reveals no statistically significant disparities between the experimental group (2.9409, range: 1.27 – 4.00) and the control group (2.8040, range: 1.77 – 3.64) in this guise. ($t = -0.684$, $p = 0.498$, $df = 34.471$, $d = 4.49$ (a large effect size)) (see tables 5.13 and 5.13.1).

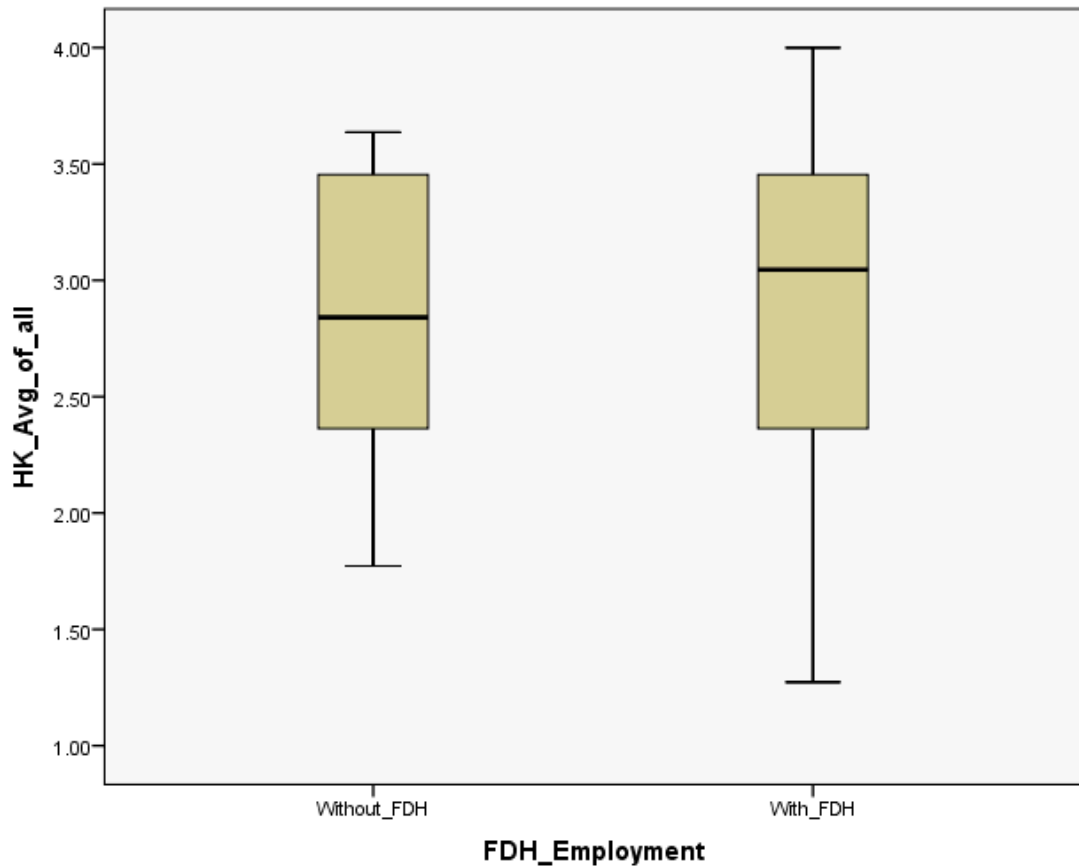


Figure 5.13 Box plot of the average rating for the HK guise

Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

Table 5.13 Means table of the average rating for the HK guise

Group Statistics

	FDH_Employment	N	Mean	Std. Deviation	Std. Error Mean
HK_Avg_of_all	Without_FDH	16	2.8040	.61495	.15374
	With_FDH	30	2.9409	.70176	.12812

Table 5.13.1 Independent-samples t-tests table of the average rating for the HK guise

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
HK_Avg_of_all	Equal variances assumed	.305	.584	-.657	44	.515	-.13693	.20847	-.55708	.28322
	Equal variances not assumed			-.684	34.471	.498	-.13693	.20013	-.54343	.26957

$p \leq 0.05$

The average ratings each group assigned are compared against the middle value 3 by means of two one-sample t-tests, the results of which are listed in tables 5.13.1.1 –

5.13.1.4. Tables 5.13.1.1 – 5.13.1.2 show the results of this analysis done for the experimental group. It can be seen from table 5.13.1.2 that no significance is yielded from the one-sample t-test ($t = -0.461, p = 0.648, df = 29, d = 11.87$ (a large effect size)). Similarly, tables 5.13.1.3 and 5.13.1.4 tell us that the control group also does not differ significantly from the midpoint 3 in this guise ($t = -1.275, p = 0.222, df = 15, d = 3.13$ (a large effect size)).

Table 5.13.1.1 Means table of the average rating for the HK guise by the exp. group
One-Sample Statistics: (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
HK_Avg_of_all	30	2.9409	.70176	.12812

Table 5.13.1.2 One-sample t-tests of the average rating for the HK guise by the exp. group
One-Sample Test: (experimental group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
HK_Avg_of_all	-.461	29	.648	-.05909	-.3211	.2030

$p \leq 0.05$

Table 5.13.1.3 Means table of the average rating for the HK guise by the control group
One-Sample Statistics: (control group)

	N	Mean	Std. Deviation	Std. Error Mean
HK_Avg_of_all	16	2.8040	.61495	.15374

Table 5.13.1.4 One-sample t-tests of the average rating for the HK guise by the control group
One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
HK_Avg_of_all	-1.275	15	.222	-.19602	-.5237	.1317

$p \leq 0.05$

5.3.1.2.4 American (US) English guise

The diagrammatic representation of the data as shown in Figure 5.14 shows a rather normal distribution. Therefore, parametric analyses were rendered possible without further attending to the data.

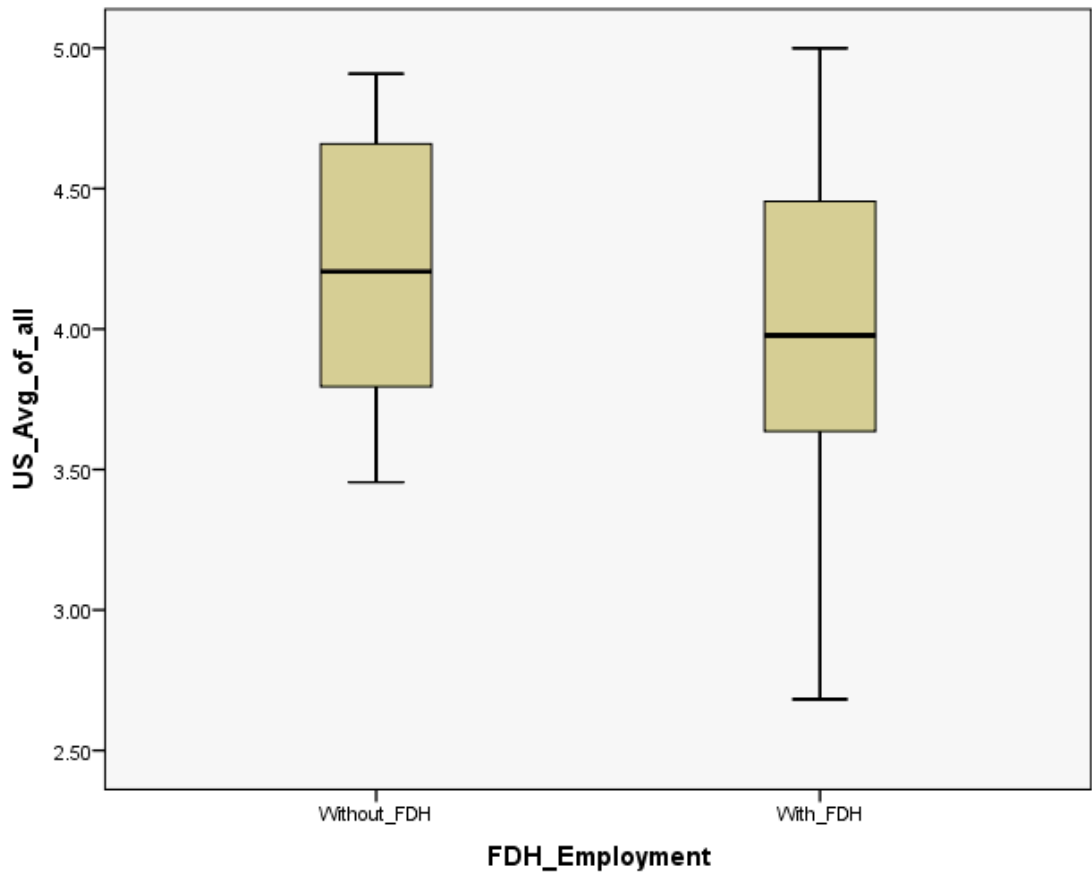


Figure 5.14 Box plot of the average rating for the US guise

Without FDH = the controls; With FDH = participants whose household have a Filipino-FDH

An independent-samples t-test was performed to check for possible relationships between the independent variable, *FDH employment*, and the dependent variable, the *average rating*. No statistical significance was found by this analysis ($t = 1.129$, $p = 0.266$, $df = 36.265$, $d = 2.65$ (a large effect size)). That is to say the two groups do not differ significantly in their average ratings for the US guise (experimental group: 4.0348, range: 2.68 – 5.00 versus control group: 4.2131, range: 3.45 – 4.91) (see tables 5.14 and 5.14.1).

Table 5.14 Means table of the average rating for the US guise

Group Statistics					
	FDH_Employment	N	Mean	Std. Deviation	Std. Error Mean
US_Avg_of_all	Without_FDH	16	4.2131	.47259	.11815
	With_FDH	30	4.0348	.57380	.10476

Table 5.14.1 Independent-samples t-tests table of the average rating for the US guise

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
US_Avg_of_all	Equal variances assumed	.255	.616	1.063	44	.293	.17822	.16761	-.15958	.51601	
	Equal variances not assumed			1.129	36.265	.266	.17822	.15790	-.14194	.49838	

$p \leq 0.05$

Results of the one-sample t-tests are displayed below in tables 5.14.1.1- 5.14.1.4. Tables 5.14.1.1 and 5.14.1.2 indicate that the rating the experimental group gave is significantly different from the middle value 3 of the 5-point Likert scale ($t = 9.878, p = 0.000, df = 29, d = 0.55$ (a medium effect size)). The control group also assigned a significantly dissimilar rating from 3 as denoted by the figures in tables 5.14.1.3 and 5.14.1.4 ($t = 10.267, p = 0.000, df = 15, d = 0.38$ (a medium effect size)).

Table 5.14.1.1 Means table of the average rating for the US guise by the exp. group

One-Sample Statistics: (experimental group)

	N	Mean	Std. Deviation	Std. Error Mean
US_Avg_of_all	30	4.0348	.57380	.10476

Table 5.14.1.2 One-sample t-tests of the average rating for the US guise by the exp. group

One-Sample Test: (experimental group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
US_Avg_of_all	9.878	29	.000*	1.03485	.8206	1.2491

$p \leq 0.05$

Table 5.14.1.3 Means table of the average rating for the US guise by the control group

One-Sample Statistics: (control group)

	N	Mean	Std. Deviation	Std. Error Mean
US_Avg_of_all	16	4.2131	.47259	.11815

Table 5.14.1.4 One-sample t-tests of the average rating for the US guise by the control group

One-Sample Test: (control group)

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
US_Avg_of_all	10.267	15	.000*	1.21307	.9612	1.4649

$p \leq 0.05$

5.3.1.2.5 Summary – verbal guise task: secondary school group

Similar to the results obtained from the kindergarten group, the average rating given by participants and controls in the secondary school group differed only with regard to the Filipino accent guise ($t = -2.645, p = 0.012, df = 32.979, d = 1.18$ (a large effect size)). In this guise, the experimental group's rating is not significantly different from the middle value 3 ($t = -1.523, p = 0.139, df = 28, d = 3.53$ (a large effect size)), while the rating the controls assigned to this accent is significantly lower than 3 ($t = -4.596, p = 0.000, df = 15, d = 0.87$ (a large effect size)). Furthermore, the ratings both groups assigned to the UK and US guises are statistically significantly disparate from 3. The figures for the UK set by the respective groups are as follows: the experimental group: $t = 5.891, p = 0.000, df = 29, d = 0.92$ (a large effect size); the control group: $t = 6.339, p = 0.000, df = 14, d = 0.61$ (a medium effect size). The statistics for the rating the groups assigned to the US guise are as follows: the experimental group: $t = 9.878, p = 0.000, df = 29, d = 0.55$ (a medium effect size); the control group: $t = 10.267, p = 0.000, df = 15, d = 0.38$ (a medium effect size). On the other hand, the ratings by both the participants and the controls are not significantly different from 3 in the HK set. Figures for the experimental group are: $t = -0.461, p = 0.648, df = 29, d = 11.87$ (a large effect size); while the figures for the control group are: $t = -1.275, p = 0.222, df = 15, d = 3.13$ (a large effect size). The ratings for the four accents all fall between the neutral to positive spectrum of the 5-point Likert scale except for the lower rating of the Filipino accent by the control group. The overall rank for the four accents by the experimental group is as follows: US 4.0348 > UK 3.7379 > HK 2.9409 > Filipino 2.8245; while the one for the control group is: US 4.2131 > UK 3.5848 > HK 2.8040 > Filipino 2.3352. The rank remains stable after combining the two groups: US 4.0968 > UK 3.6747 > HK 2.8933 > Filipino 2.6505. The overall findings suggest that participants in this group have a wider spectrum of attitudes that spread across the negative and positive ends than the kindergarten informants. They, too, seem to prefer the American and British

varieties over the other two. Similarly to the kindergarten students, participants in this experimental group also do not hold a negative attitude towards the Filipino variety. This again makes explaining their non-production of such a variety challenging.

Chapter 6. Discussion

This chapter provides discussions of the findings gathered from the perception, production and attitude tasks respectively. Possible accounts will be put forward to explain the results obtained.

6.1 Perception Tasks

The results from the picture choosing task suggest that children whose parents have employed Filipino helpers at home behave no differently from the control group regarding their perceptions of the American and Hong Kong English sets of words. In addition, the kindergarten group performs similarly to participants in the secondary school group with respect to these two sets of words. These conclusions are supported by the non-significant results yielded for both *school group* and *Filipino-FDH employment* as independent variables in the series of two-way ANOVAs performed to test just this relationship. On the other hand, although the Filipino helper employment factor makes no difference to informants' performance on the British set, the secondary school group is better than the kindergarten group in their performance regarding this set. This can be seen by the fact that *school group* as a factor reached significance, while *Filipino-employment* did not. Moreover, learners who were exposed to Filipino-accented English scored better in the Filipino English set than those who had not received Filipino English input. Also, the kindergarten group performed better than secondary school students in this set. These findings again find support from the inferential statistics obtained for both independent factors regarding the Filipino set of English words.

Furthermore, the results of the sound discrimination AX³ task explicitly targeting the five Filipino English sounds /f, v, p, t, k/ reveal that participants with Filipino FDHs are

better at listening to English sounds spoken in this variety than those who do not have Filipino helpers. This substantiates the idea that exposure to Filipino-accented English facilitates participants' success in various tasks that tap into learners' knowledge of this variety of English. These findings concur with the pilot study (Leung 2011b) which employed a slightly different methodology (i.e. word spelling task and picture choosing task). Moreover, secondary school students in the current study are more advanced in their performance on this task compared to their younger counterparts in the kindergarten group.

These results indicate that both informants and controls have acquired perceptual phonological knowledge of American-, British-, and Hong Kong- English. Given that learners normally acquire the language/code to which they are exposed as pointed out by e.g. Frieda and Nozawa (2007) and Young-Scholten (1994; 1995), these findings are perhaps not surprising. Since children in both groups received Hong Kong English input from their peers and local teachers, and native English input (American or British) from NETs and teaching materials (cf. Cook 2008; Regan 2013), it is logical that they are able to complete the picture choosing task with more or less similar success rates which in turn reflects their perceptual command of the respective L2 English phonologies. In addition, informants' exposure to Filipino-accented English seems to have helped them build a perceptual knowledge of this variety of English. Therefore, participants in the experimental group are better at identifying the relevant Filipino English sounds (i.e. /f, v, p, t, k/) when compared to the controls who struggle to perform in both tasks. These results provide support for the central claims of second language phonology acquisition models/theories reviewed at the beginning of this thesis (specifically the Speech Learning Model and Optimality Theory), namely the availability of ample input leads to the acquisition of the target phonology. In the present situation, findings from the two perception tasks demonstrate that children who were exposed to an array of L2 English

input encompassing the UK-, HK-, US- and Filipino- models are able to acquire perceptual knowledge of these varieties of L2 English. This extends the prediction made by L2 phonology acquisition models, which focus on the acquisition of a single variety or implicitly assume the input to be a monolithic entity, to cover situations where types of input are heterogeneous, representing multiple varieties (vis-à-vis UK-, HK-, US-, and Filipino- English).

However, what is noteworthy is the fact that although participants in the experimental group have a better perceptual command of the Filipino variety than the control group, their performance is clearly worse than that for the other accent sets. This shall become obvious when the mean scores of the kindergarten group (68.9) and secondary school students (62.5) in the Filipino set are contrasted with the average scores they obtained for the UK, HK, and US sets, all of which are over 85. In fact, this figure for the Filipino set does not meet the threshold that is often used in acquisition studies as an indicator of acquisition/native-like proficiency.⁴⁷ This suggests that although it is clear that participants' abilities to perceive the Filipino variety of English are better than those of the control group, who were not exposed to this type of input, the nature of their acquisition of this variety needs further exploration in the light of their relatively poor performance when compared to their perceptual abilities in other varieties of English

⁴⁷ It has to be pointed out, however, that the acquisition threshold varies from study to study and ranges from 60% to 90% or more. Another criterion that is often used is based on a comparison with native speakers' performance in the task; if participants' performance falls within the range of two standard deviations of the performance of native speakers, their ability is regarded as native-like. However, this criterion cannot be used here as no Filipino speakers were included in this part of the study. Nonetheless, this would constitute a sensible area of further investigation that would allow the issue to be addressed in more detail than time or space will allow in the present thesis. In fact, the percentage threshold used is not free from problems and has, in fact, been seen as somewhat arbitrary which is why the "emergence criterion" is used in certain other contexts, like the acquisition of grammatical competence (Pienemann and Keßler 2011).

that the current study targets.

As a matter of fact, when one tries to unpick the issue further, it is possible to see that the nature of the Filipino input that the participants received was perhaps quite different from their input for the Hong Kong-, British-, and American- varieties. In contrast with HK English (the ambient variety), British and American English (models represented in the media and textbooks) to which all participants would have listened from various people on different occasions in numerous domains, the Filipino input that participants in the experimental group received is limited to the speech they hear from their Filipino FDHs - mostly in the domestic domain. In other words, the input participants get for Filipino-accented English is restricted to what they hear from small numbers of adult speakers, depending on how many helpers they have been exposed to. The nature of this input is hence in stark contrast with the other varieties in question which would have been heard by participants on many other occasions outside the home domain, e.g. school, extra-curricular activities, television, and so on. It is arguable that the limited nature of the Filipino-accented input (i.e. from only one or two speaker(s)) has impeded the development of robust categories essential for the processing of novel speech by a different speaker of a given dialect/language (Johnson 2005; Johnson and Mullenix 1997). On the other hand, the input of the UK, HK, and US varieties which encompass a wide degree of talker variability (e.g. within/across speakers: i.e. speech rate, gender, pitch contour, etc.) has aided the building of phonological categories that allow the informants to generalise to speech produced by a novel speaker with potentially different speech qualities in a given variety of English.⁴⁸ By this logic, listening to

⁴⁸ In other words, informants have established stable phonological categories that enable them to “normalise” speech. That is to say, they are able to screen out irrelevant details in the acoustic signal such as pitch variation, variation in fundamental frequencies and so on as well as extracting relevant phonological information out of the speech stream. However, this view is not universally agreed since this favours an abstractist’s view whereby the phonological categories are stored in the bare form without any

stimuli prepared by a novel Filipino English speaker who is not the Filipino speaker that participants have previously encountered introduces parsing difficulties, as the speaker's speech characteristics/features/idiosyncrasies do not necessarily coincide with or match those of the (one/two) Filipino speaker(s) with whom the participants are familiar. That is to say, due to the limited variability informants have been exposed to in the Filipino variety, the phonological categories these youngsters have established for Filipino-accented English are not robust enough for them to generalise and process speech samples that are produced by another speaker, even though the stimuli represent largely the "same" Filipino accent. Therefore, even informants who are, to a certain extent, "familiar" with Filipino-accented English fall short of the "expected" categorical performance (with a success rate of over 85%) in the picture choosing task, whereas virtually all participants had no problem listening to the English words spoken in a UK, HK, or US accent in the same task. Likewise, the same argument can be used to explain the rather low performance in the sound discrimination AX³ task.

This line of argument finds support from numerous laboratory studies which involve stimuli that contain different sources of variability. The general finding from this experimental research is that exposure to multiple stimuli instantiating various forms of variability during the training procedure enhances the learning of the feature in question (see Clopper and Pisoni 2005; Perrachione, Lee and Wong 2011). A few studies have been undertaken to determine the effect of different acoustic-phonetic stimulus variability on acquisition, including speech rate, speaking style, talker variability, accent

superfluous details such as speakers' idiosyncratic information; any extra acoustic signal is filtered out before interacting with the semantic interface to produce meaning (as discussed in various papers in Johnson and Mullennix 1997). An emergentist account would argue for quite the opposite such that the mental categories stored contain highly detailed information including speakers' characteristics and dialect variations, and the online processing of speech would involve complex form-meaning matching mechanisms.

variability, etc. with respect to various tasks including word learning/identification and recall (e.g. Barcroft and Sommers 2012; Bradlow, Nygaard and Pisoni 1999; Sommers and Barcroft 2007; Goldinger, Pisoni and Logan 1991; Nathan, Wells and Donlan 1998; Sommers, Nygaard and Pisoni 1994; White and Aslin 2011). The majority of the findings point to the ease of processing (as indicated by the task completion speed) when the stimuli represent minimum variability, while, on the other hand, high variability stimuli usually lead to slower response times and reduced accuracies in the initial stage. This seems to be true for informants of various ages, ranging from young infants of a few months old to adults. Most of these studies focused, however, on issues related to variability in an L1. This line of reasoning as shall be argued below can possibly be applied to explain participants' relatively poor performance in the current perception tasks that target Filipino-accented English which contrasts sharply with the pilot study (Leung 2011b).

One of these studies done by Schmale, Cristia, Seidl and Johnson (2010) examined the ability to cope with dialect variation in word recognition through a head turn preference procedure (Jusczyk and Aslin 1995) in a sample of 24 9-month old and 24 12-month old English infants. They found that the former had trouble recognising words from speech that were read in an accent different from the one that they were habituated to in the preparation phase (North Midland-American accent versus Southern Ontario Canadian accent). The authors argue that these results suggest the 9-month old infants have not acquired the ability to disregard irrelevant acoustic information in processing speech due to their limited language exposure. By contrast, 12-month old babies learnt to “disregard variation along specific dimensions they have identified as highly variable across speakers” (Schmale et al. 2010: 659) through their longer period of exposure to language in general. These findings are replicated and extended in another study targeting a foreign accent (Schmale, Hollich and Seidl 2011). Adopting a preferential

looking procedure (Fagan 1971; Spelke 1979), the team was able to establish that the 32 English-learning toddlers aged 2;0, but not the 24 who were six months older, had difficulty generalising newly learnt words spoken by a Spanish-accented speaker. This is specifically so when the 24-month old toddlers were coached by a native English speaker in the training stage. Schmale and his colleagues maintain that although youngsters come to grips with regional accent variations quite early (cf. Schmale et al. 2010), their phonology is still not fully fledged (or robust) enough for them to cater to foreign accent variations, namely to filter out the irrelevant acoustic-phonetic information present in a foreign accented speech sample. Therefore, this set of participants encountered difficulties in generalising newly learnt words when Spanish-accented speech was used in the test procedure. Furthermore, they hint at the potential benefit of exposing learners of any given language to accented speech so as to augment the robustness of learners' phonology.⁴⁹ Likewise, talker variability is found to affect adults' accuracy in a serial word recall task (Goldinger et al. 1991). By manipulating the number of talker(s) the 160 participants listened to as well as the inter-stimulus-interval, researchers discovered that talker variability hampers participants' spoken word recall accuracy by means of increasing the processing demands and also affecting the efficiency of the rehearsal process. However, this effect interacts with the rate of presentation. When the presentation speed was slower (i.e. higher inter-stimulus-interval), the recall of multiple talker lists was performed more accurately than a word list produced by a single talker. Taken together, these studies highlight the complexity involved in speech perception when variability is involved in the speech signal (Sebastián-Gallés 2005).

Multiple talkers and their variability not only impact on vocabulary learning, but their

⁴⁹ This point will be picked up later on in the conclusion section. Also see Butler, Floccia, Goslin and Panneton (2011).

effect is also felt in the realm of accent categorisation, classification, identification, and so on. In an effort to study the effect of multiple talker variation and its impact on the perceptual learning of dialects, Clopper and Pisoni (2004) trained 59 monolingual American English speaking adult listeners (aged 18 to 25) to classify six US regional varieties: New England, North, North Midland, South Midland, South, and West. The listeners were divided into two groups, one of which was trained to categorise a single talker from each of the six dialect regions, while the second group was trained with materials spoken by three talkers from each target area. In accordance with the previous findings mentioned above, they noted an initial advantage during training for speakers who were exposed to only one talker specific to each region. In addition, participants exposed to this training condition also performed better in the dialect categorisation task when classifying familiar talkers in the test phase. Nonetheless, informants who were trained with various talkers were better at a generalisation task in which they classified the speech of novel speakers (i.e. talkers who they had not heard in the training phase) from the six dialect regions. Using these findings, Clopper and Pisoni argue that “exposure to intertalker variability facilitates robust perceptual learning and promotes better categorization performance of unfamiliar talkers” (2004: 207).

Bradlow and Bent (2008) add further understanding to the impact of talker variability on speech perception through two intelligibility experiments where participants transcribed materials in English orthography. In the first experiment, 82 native speakers of American English listened to four non-native speakers representing four different levels of intelligibility determined in a previous study (Bradlow and Bent 2003). The speech sample chosen included three Chinese speakers of low, medium and high degrees of intelligibility, respectively, as well as a Slovakian speaker of medium intelligibility. Participants in this part of the study were divided into four groups; each group listened to and transcribed the speech from one of the four speakers. Results show

that listeners were able to adapt to foreign-accented speech over the course of the experiment under the single talker condition as shown by the improvement in the transcription accuracy over time. However, the rate and the extent to which they were able to adapt were mediated by the intelligibility of the speech sample. In the second experiment, 60 participants were trained in either a single talker or multiple talker condition along with 10 controls who listened to native speakers' speech and 17 extra informants who received no training. They then took part in a transcription task where they listened to novel speakers' speech samples with white noise at a +5 dB signal-to-noise ratio added. Results showed that informants who were trained in the multiple talker condition could adapt to the foreign-accented English independent of the speaker. In other words, they performed in the test phase equally as well as if they were listening to the same speaker even though the test sentences were actually spoken by a novel speaker in this experiment. Bradlow and Bent (2008) argue on the basis of the findings from these two experiments that listeners' perceptual systems are highly flexible even under less favourable listening conditions (i.e. despite the white noise added in experiment two), and learners are able to make adjustments to their linguistic representations upon exposure to novel input. They further suggest that "the broader the base of similarly novel input (e.g. in a multiple talker training condition), the more robust and generalizable are the longer-term adjustments" (2008: 725).

The benefit of exposure to multiple varieties/variability is however not independent of other factors according to Perrachione and his team (2011). Again, making use of a training procedure, they tested the ability of 64 adult native speakers of American English in learning pitch contrasts. These participants who had no prior experience with tone languages, divided according to their language aptitude, learnt 18 pseudowords read by eight native American English speakers (four males, and four females). Three pitch contours (level, rising, and falling) were superimposed on the training materials to

synthesise lexical tones present in a tone language. Variability in the stimuli instantiated “natural differences between talkers including voice quality, syllable duration, average pitch, formant spacing, etc, as well as synthetic differences in the pitch contours” (2011: 463). Participants were trained for eight consecutive days in either the low variability condition, where they only listened to one specific talker, or the high variability condition, where they listened to materials read by all four training talkers intermixed with one another. It was found that all learners learnt significantly faster during the low variability condition, and that the high variability condition promoted further learning and generalising abilities for learners with high learning aptitude, but crucially the learning of low learning aptitude learners was further impaired by the high variability training. However, in a follow-up experiment they found that low aptitude learners were also able to benefit from the high variability training condition when materials were grouped into blocks such that informants listened to all four training speakers in blocks one by one as opposed to materials that were randomly intermixed as in the first experiment. In other words, learners were able to take advantage of the high variability intervention when the materials were systematically structured. Perrachione et al. use these findings to caution against the application of high variability in training indiscriminately. They stress the importance and the need to take “individual differences in speech- or language-learning aptitude into consideration” (2011: 471) in order to devise training paradigms that “will maximally benefit all learners” (ibid.).

In light of the studies conducted within the training/intervention paradigm which illustrate that the exposure to variable stimuli in training enhances the building of robust categories which in turn facilitates generalisation to novel test items not included in the training phase (see also Barcroft and Sommers 2005; Clopper and Pisoni 2004; Lively,

Logan and Pisoni 1993; Rost and McMurray 2009),⁵⁰ the seemingly perplexing results of the participants in the current perception tasks can indeed be attributed to their lack of exposure to inter-talker variability in Filipino-accented English. This means that the phonological categories that participants have established for this variety of English are not robust enough for them to perform very successfully in tasks where speech samples from novel speakers are involved. Of course participants could very well have done better had a Filipino English speaker to whom they have listened been used in the test phase instead since, in contrast to the control group, they did show some signs of acquisition of this variety. That is to say, the informants must have attained certain “speaker-dependent” competence in this dialect of English through their somewhat restricted exposure to Filipino English from their Filipino domestic helper(s); therefore, their performance should logically improve if the same speaker(s) as their own Filipino FDHs was used in the study in line with the studies discussed in the paragraphs above. This would also explain why participants in the pilot seemed to fare better than the informants in the main study (cf. Leung 2011b: 90) as the test materials in the pilot were recorded by the actual FDH with whom participants had direct contact. In fact, the current findings obtained from participants acquiring the target variety in real life scenarios complement what has already been demonstrated in strictly controlled laboratory settings, namely, the fact that multiple variability enhances learning of the contrasts in question (with individual differences and task design as mediating factors), by showing that the lack of variability in the input in relation to Filipino English does seem to hinder the development of a native-like categorical phonological representation that would allow learners to perform with a high degree of success in perception tasks involving novel materials/speakers. In other words, input variability not only improves

⁵⁰ For the contrary see e.g. Floccia, Butler, Goslin and Ellis 2009 who argue that informants’ temporary perturbation in reaction times in a word identification task caused by foreign or regional accents of English is not remedied by repeated exposure to that accent.

the learning of a given item and facilitates novel generalisations, but the lack of input multiplicity in the form of inter-speaker variability of a given variety of language could lead to phonological acquisition that is less robust, hence constituting problems when favourable processing conditions are not met (e.g. the use of a Filipino speaker different from participants' own Filipino helper in the present case).

On the other hand, the difficulty participants in the experimental group had with the AX³ sound discrimination task could have been due to the task complexity involved. The fact that three AX dyads were aligned one after another in a randomised order increased the demand on participants' attention; instead of only having to decide whether the sound in X was identical to A in a single instance, informants had to continue paying attention for two more trials before proceeding to the next question item. This is perhaps the reason why secondary school students, who have longer attention spans, did significantly better in the task than kindergarteners who may be less capable of focusing for a long period of time (see Ruff and Capozzoli 2003; Ruff and Lawson 1990 for the growing attention span of young children; see also Buttross 2011). Moreover, there were no visual cues to aid participants' completion of the task unlike in the picture choosing task nor did they have contextual information to rely upon as informants did in the pilot study where the target Filipino English speech sounds were embedded in a meaningful paragraph in the word spelling task. Instead, informants in this experiment had to count on the auditory cue alone. In addition, they could not depend on lexical/semantic information either because the sounds in A and X were minimal sound pairs that only differ in the target onsets and on some occasions nonce words were used to create the perfect minimal pair contrast. Furthermore, as a forced-choice discrimination task, the AX³ which requires participants to state whether the two sounds are the same or not has a higher demand on informants' short-term memory load than a go/no-go AX discrimination task where participants only have to

respond when they believe the sounds are identical. When trying to explain the poorer performance of their 5-6 year old informants in such a task in comparison to the results gathered from their earlier experiment utilising the go/no-go paradigm, Girard, Floccia and Goslin (2008) state that a forced-choice AX task “presumably requires more attention and representational space” (2008: 427). By the same token, youngsters’ less than categorical performance in the present study could also be attributed to the relatively higher processing load that this task calls for.

Also, participants in both of the perception tasks were only familiarised with the testing procedures in the training phase but not the actual target dialects, in particular, the Filipino variety of English. This runs contrary to many of the studies discussed in the paragraphs above where participants not only had the opportunity to become familiar with the task procedure, but they were also exposed to the target dialect in the training phase prior to testing. The provision of the actual target dialect in training allows learners to become accustomed to that particular accent. Thus, the more categorical responses in other studies are not directly comparable and should not be compared without caution for the very fact that the study design of the current study and research questions it aims to address do not lend themselves to the training procedures used in other studies. Moreover, many of these studies only pertain to dialects or variability in an L1. In all fairness, the performance of natives in these tasks tapping classification or categorisation of multiple dialects is, after all, relatively poor even in ideal listening conditions (e.g. Clopper and Pisoni 2006). Performance often ranges from 20-50% in accuracy (Clopper and Pisoni 2008).⁵¹ In addition, learners are predicted to perform more poorly when tasks involve an L2 for the reason that they often have less experience with variation in an L2 (Clopper and Pisoni 2005). After taking all these

⁵¹ Nonetheless, these figures can only serve as a rough anchor since the current perception tasks tap into identification (word identification) and discrimination (AX³) abilities instead of classification ones.

issues into account it seems reasonable to postulate an alternative (extra-linguistic) explanation which hinges on the complex task design and high processing load to account for participants' relatively low performance.

6.2 Production Tasks

On its own, the non-production of Filipino English by the young participants in the current study with respect to all the production tasks is quite perplexing. This is especially so when these findings are considered against the vast number of studies that show acquisition of various aspects of L2 phonology (segmental and suprasegmental) by children and adults upon exposure to the target input (e.g. Bongaerts 1999; 2005; Flege and Liu 2001; Frieda and Nozawa 2007; Ioup et al. 1994; Young-Scholten 1994). Although recent studies have demonstrated that learners' second language proficiency can vary as a function of their degree of affiliation with the target language group which, in turn, can mediate the amount of input that they obtain for the target language (Gatbonton and Trofimovich 2008; Gatbonton, Trofimovich, and Magid 2005; Gatbonton, Trofimovich, and Segalowitz 2011; also Moyer 2011), it is difficult to extend that line of reasoning to explain the present findings. This is because the learners in the current study live in the same household as the FDHs, not to mention the fact that the majority of the learners would have interacted mainly with the FDHs, in English, at a young age since most of their parents are out at work during the day. That is to say, it is inevitable that these children would have regularly heard Filipino-accented English input. Moreover, the verbal guise task, which will be discussed in detail below, indicates that informants have an ambivalent attitude towards FE, making it challenging to resort to speech accommodation (Beebe and Giles 1984; Giles, Coupland, and Coupland 1991) or speech design models (Bell 1984; 2001) for a straightforward explanation. The speech accommodation model aims to explain the motivations behind speakers' choice of code during social encounters. It is proposed that whether speakers converge or

diverge from each other's speech in terms of, for example, linguistic features such as speech rate and pronunciation during a communicative exchange can be linked to the affective and social processes deemed relevant to the contexts by the speakers. One of the model's key concerns has to do with the speaker's attitude towards and his/her evaluation of a particular type of speech and the subsequent accommodation or not towards that variety of speech so as to elicit social approval from the listener, and/ or attain communication efficiency, and/or maintain a positive social identity (Beebe and Giles 1984: 8). Put simply, a negative attitude towards a certain variety can account for speakers' divergence from that variety in their own speech. The reverse also holds in that a positive attitude towards the interlocutor's speech will mark the speaker's convergence to that variety of speech. This is not to say that the speaker's speech will become completely identical in the case of accommodation; see for instance, Pardo (2006) who suggests that the degree of convergence for instance can be mediated by perceptual noise such that the actual target sound a speaker intends to emulate might not be acoustically identical to the sound they perceive. This also does not mean that speakers will become completely unintelligible in the case of divergence, but their speech features in relation to, for example, speech rate or pronunciation of dialectal features (see Giles and Powesland 1975) will alternate so that the similarities or differences between the parties will be highlighted. Moyer (2007) provides empirical evidence in support of such a model where attitude data collected through a language orientation survey significantly correlates with how accented the 42 adult learners of English in the USA are perceived to be by four native American English speakers.

Bell's audience design model (1984) makes use of similar underpinnings but emphasises the fact that the dynamics of speech adjustment can go beyond its intermediate dyadic pairs of interlocutors and that adjustment occurs in response to a wider audience who may hear or overhear the speech one produces. Taking a broader

scope of who the audience may be, the speaker will vary his/her speech (or style in Bell's terminology) in order to achieve his/her purpose such as identifying with a particular speech group, or to mark identity. In his subsequent work on the model, Bell also stresses that an equal amount of attention should also be paid to the "referee" who may come up as a reference in a conversation but is "not usually present at an interaction" (2001: 147). This model, too, predicts that the speaker will adjust his/her speech on the basis of various social dimensions including identity and attitude.

However, both of these accounts fall short as an adequate explanation for the results of the present study: that learners failed to produce any traces of the variety to which they had considerable exposure at the start of their acquisition of English. These accounts fail because the participants in the experimental group do not actually hold a negative attitude towards the Filipino variety of English as can be seen from the attitude findings. A more detailed explication follows below. This seems to indicate that although a negative attitude towards a particular variety can indeed lead to non-adoption of certain speech features in a speaker's production, there are no a priori reasons to suggest that the non-production of these speech features is a corollary of speakers' negative evaluation of them.

On the other hand, this "non-acquisition" scenario seems to resemble the "Ethan Experience" to which Chambers refers (2002; 2005). Building largely on anecdotal evidence, the Ethan Experience describes immigrant children who grow up speaking the community language like their age- and class-matched peers despite receiving ongoing foreign-accented input in the target language from their parents and other first generation immigrant family or community members. They are said to show "no traces of the parents' foreign-accent features, not even in isolated words" (Chambers 2005: 219). He argues that children possess an innate accent filter that screens out any features

that are alien to the immediate community; hence, they are not affected by their first generation immigrant parents' accented speech. According to Chambers, this is the reason why speech feature differences between immigrants and natives are often neutralised down the generations. He argues that such a filter is operative at a syntactic level too, though its importance is less clear in that realm. This “non-acquisition” of foreign-accented features seems to be quite widespread according to various accounts provided by Chambers' colleagues and students recollecting their own learning experience or the experience of their acquaintances. Even though Chambers acknowledges that the Ethan Experience is not well “substantiated by empirical evidence” (2005: 218), it seems a logical account to entertain especially given its apparent compatibility with the current non-production findings, i.e. children exposed to early and on-going FE input seem to have somehow filtered out this input to the extent that they show no signs of it in their own speech production.

However, the Ethan Experience is mainly based on the observation that children of immigrant families do not **produce** foreign-accented speech; whether or not they have built **perceptual knowledge** of the foreign-accented variety spoken by the first generation is not discussed. In fact, findings from the perceptual instrument reported above demonstrate that the learners in the current study have indeed built perceptual knowledge of the Filipino variety (see also Leung 2011a; 2012). The same learners who took part in the production and attitude tasks reported in this section are significantly better than the controls, who had not been exposed to Filipino English input, at perceiving the variety as revealed by the picture choosing task as well as the sound discrimination AX³ task. This seems to suggest that the observed “non-production” does not have an “acquisition source” per se as informants have at least built the perceptual knowledge of such a variety (but see above discussion of the nature of such perceptual knowledge in relation to the robustness of representations in section 6.1). This can be

taken as a reaffirmation of the findings of previous L2 phonology studies which establish that the exposure to target linguistic input triggers acquisition, except that, in the present situation, the evidence of acquisition is unveiled through the perception rather than the production tasks. This, by extension, cautions against taking the Ethan Experience at face value.

In fact, further investigation uncovers a more intricate and complicated story as captured by the case of Mariam and her peers of a similar background (Chambers 2005: 221-2) even if we were to only consider production data. Mariam grew up in Yorkshire, UK, as a third generation immigrant (i.e. her grandparents moved to the country from Pakistan while her parents were locally born) and she developed bi-dialectalism with regard to English. Instead of skipping the acquisition of her grandparents' distinctive dialect of English, she has built up the competence of it along with the community norm simultaneously such that the two systems remain separate and are not interfering with each other. In this Yorkshire community, the Pakistani variety is reserved for conversing with the "accented" elderly, while the community code is used on all other occasions. This phenomenon does not seem to be operating at a conscious level and it is not until "later school years, when it becomes obvious, at least to those who think analytically about their speech that they do, in fact, command two dialects for different settings and have always done so" (2005, 212). In other words, these youngsters were able to adjust the way they spoke in relation to their interlocutors without conscious monitoring. Although it is worth noting that the overt and acute social stigmatisation attached by peers to certain accented features can override the "blinding" effect of the largely subconscious accent filter such that once the disparities between accented immigrants and natives are brought to the fore (often by outsiders through mockery (Chambers 2005: 221)), learners are no longer innocent from that "elephant in the room" and will always be consciously aware of such differences thereafter (2005: 221). That is to say,

once the speech differences are made explicit, the shielding effect of the accent filter will run out. These conclusions are, however, mainly based on informants' recollection of their past experiences. Stanford (2008) gives similar qualitative accounts of children recounting their experience of acquiring the various Sui dialects spoken in rural southwest China. In that particular speech community, the mother and father of the family often do not speak the same dialect due to exogamy, with tones and vocabulary being the areas of most salient differences. It is the norm for Sui children to acquire the patrilect instead of the matrilect because the children are seen as a part of the paternal clan but not the maternal one. These children are said to have acquired and speak the patrilect exclusively at around the ages of five to seven. This is confirmed by the acoustic analyses of the tones participants adopted in an interview where the youngest participants (aged three to five) show variable use of patrilect and matrilect tones, while the older participants (aged 9-12) used the patrilect tones only. The exclusive use of patrilect over the maternal one is said to be a result of "the community's direct admonishment, ridicule and teasing" (2008: 572) and from the linguistic input from older siblings who already speak the patrilect. This indeed suggests that overt censorship against what is not the community norm does play a role in bringing to young speakers' explicit attention the differences between the varieties available for acquisition, thus affecting their subsequent code choice.⁵²

Sharma and Sankaran (2011) point out that the strong version of the Ethan Experience of an innate accent filter cannot actually be upheld based on their study of British Asian

⁵² Closely related to this point is the possibility of parental attitudes affecting participants' code choice. In fact, this is one of the many factors that would affect bilingual education planning and language maintenance (e.g. Verma, Corrigan, and Firth 1995). However, due to the limitation of words such a discussion cannot be elaborated on further despite the presence of a parental attitude questionnaire in the initial research instrument.

communities in London.⁵³ They looked at the use of *t*-retroflexion characteristic of Punjabi, and the *t*-glottaling characteristic of the variety of British English participants were exposed to, and collected data using sociolinguistic and biographical interviews. They suggest that instead of blocking the non-native accented feature of the previous generation in an outright fashion, second generation immigrants show a gradation of use in those features. In particular, the older second generation speakers (born between 1960 and 1970) who experienced racial animosity during their early years display bidialectal ability in their use of both *t*-retroflexion and *t*-glottaling, resembling both the use of first generation immigrants as well as the community use. The younger second generation (born between 1970 and 1995), however, shows a functional relocation of the *t*-retroflexion feature and at the same time displays a native-like usage of *t*-glottaling. That is to say, even though the two tiers of the second generation deal with the foreign feature differently depending on the social functions they want to achieve - be it downplaying their Asian-ness or highlighting their pride in it - these participants are by no means getting rid of this feature completely. This underscores the complexity involved in contact situations and also questions the empirical validity of the Ethan Experience. Other studies have likewise demonstrated the complexity involved in situations where multiple varieties come into contact and have shown that learners are by and large able to acquire the community pattern in relation to both phonological and morphological features (e.g. Cheshire, Kerswill, Fox, and Torgersen 2011; Meyerhoff and Schleeff 2012; Schleeff, Meyerhoff, and Clark 2011; Smith, Durham, and Fortune 2007). For instance, Schleeff et al. (2011) show that Polish teenagers are able to replicate some of the *-ing* realisation patterns (i.e. realising it as the velar or alveolar variant) local to the city they immigrated to (London and Edinburgh), though it is also pointed out that some novel constraints that govern the *-ing* realisation have been developed

⁵³ However, it has to be pointed out that they based their argument on Chambers' 2002 work where he had not discussed the bidialectal case of Mariam.

among the Polish immigrants (see also Meyerhoff and Schlee 2012). Cheshire et al. (2011) also point out that the claims of the Ethan Experience undermine children's ability to process relevant sociolinguistic information, as there are clearly cases where bidialectal abilities have been developed and parents' accented features are adopted as a result of identity issues (see also Kerswill and Williams 2000; 2005). All of these studies point to learners' ability to navigate around the variable input (i.e. in the presence of multiple varieties in contact situations, and sociolinguistic variations in the case of stylistic variations), and are aptly able to (re)produce the patterns resembling their immediate speech community and in some cases acquire bidialectal ability in situations that call for the development of such an ability.⁵⁴

Perhaps learners in the current study have likewise built a tacit knowledge about the appropriate code choice in relation to the sociolinguistic milieu (Bayley and Regan 2004), i.e. knowing when to say what to whom (cf. Fishman 1965; Hymes 1974). In the present case, participants are subconsciously aware that the Filipino variety is not the community norm. Thus, they avoid using such speech which is not characteristic of their immediate or wider speech community. In conjunction with the perpetual findings, it is revealed that these children are essentially multi-dialectal in the sense that they are competent (at least perceptually) in the four varieties of L2 English in question, parallel to the Mariam case discussed above where she and her peers commanded both the Pakistani dialect of English and the Yorkshire variety. Apart from anecdotal support, this argument is also backed by related studies that show young bilinguals' ability to adjust to their interlocutors and their sensitivity towards community norms in their language choice. For example, Deuchar and Quay (1999) demonstrate that by the age of 1;8 English-Spanish bilinguals are able to choose the appropriate vocabulary in the

⁵⁴ See also Caldas 2007 and Caldas and Caron-Caldas 2002 for how the choice of language among language users in various contexts can alter as a result of a shift in identity with age.

respective languages in accordance with the language context. Similarly, bilingual English-French children (3;6-4;11) in Canada display a sensitivity towards the community norm and their interlocutors' language profile in their choice of code although the degree to which they are able to adjust is mediated by their language dominance (Paradis and Nicoladis 2007). Other researchers have discussed this ability of bilinguals to use different languages with different interlocutors appropriately using a range of terms such as "pragmatic differentiation" (Nicoladis and Genesee 1996). Genesee, Boivin and Nicoladis (1996) regard this as a form of communicative competence. They found that their four child participants (average age 2;2) were able to make some accommodation in their language choices in relation to the monolingual stranger interlocutor. All in all, these studies indicate that even children at a very young age are able to make gradual adjustments in their code choice according to who they are talking with (Nicoladis and Genesee 1996). Furthermore, this ability to accommodate can vary based on conversational contexts and it is said to also be related to learners' development of metacognitive abilities (Tare and Gelman 2010; 2011). They find that children's ability to adjust to their interlocutor's language is related to the scores they got in a set of theory of mind tasks that assessed social cognition. In addition, explicit metalinguistic knowledge about the languages in question (English and Marathi in this case) seems to play a role, too, though its effect is not independent of the theory of mind effect. Although the study was not designed specifically to test such a relationship, the authors propose that an "increased metacognitive understanding contributes to children's ability to use their languages appropriately to communicate successfully" (2010: 155). On the other hand, it is noteworthy that when the communication becomes a multiparty one, children become less capable of adjusting even when the appropriate adjustment model is present from their parental input (2011).

Placing these points in the context of the current study, learners who completed the

production and perception tasks are not only dealing with a binary language choice, between languages A and B, but with a more subtle differentiation which involves various varieties of L2 English, namely the Filipino-, Hong Kong-, UK-, and US-varieties. This seems to suggest that even young learners are already highly versatile in handling situations where multiple varieties are present in the input, making subconscious code choices appropriate to the context. It is also possible that informants had subconsciously assessed the situation and deemed Filipino English to be an inappropriate code choice knowing that the researcher is not a speaker of this variety.⁵⁵ Therefore, in the presence of the researcher in the current experimental setting, they chose not to use the Filipino variety even though there are signs of such a code represented in their repertoire as seen through their perceptual command of the features of FE targeted in the perceptual tasks. According to this logic, using an actual Filipino English speaker in the experiment might have facilitated the production of FE. Though the Filipino recorded speech aimed to simulate such a situation, it was perhaps not sufficient for triggering participants' accommodation, hence virtually no FE speech was observed. In hindsight, the fact that the recorded speech failed to elicit Filipino-accented English from the participants is not that surprising given that speech studies seem to indicate that the social interactional aspect of communication is essential for speech learning and imitation (Kuhl 2007). For instance, Doupe and Kuhl (1999) and others (Evans and Marler 1995; Marler 1991) showed that infant learning can only happen when speech signals are generated by humans rather than other sources. Similarly, Kuhl, Williams and Meltzoff (1991) found that infant participants fail to reproduce sounds that resemble vowels which are not produced by human vocal tracts. However, due to the

⁵⁵ In fact one of the kindergarten participants during the experiment was surprised that I, the researcher, spoke English. He made an explicit comment about it saying that he thought I only speak Chinese (Cantonese) since I look Chinese. This signifies that children somehow come in with a view of who should speak what language, although this might not always be conscious as it was with this particular informant.

limitation in resources, the use of recordings was the only feasible means to simulate the context where participants' production of FE might have been prompted. Thus, a follow up study utilising the help of a Filipino may allow us to delve into the issue. By the same token, had the Filipino English variety been better supported, for instance by means of the presence of Filipino peers in the children's context (hence enhancing the ethnolinguistic vitality of the language which is argued to be essential for minority languages' maintenance (see Yagmura and Ehalab's 2011 special issue on ethnolinguistic vitality), the results obtained for the present experiment could have been quite different; at the very least, one would expect at least some Filipino English features to surface as they would have been among the "feature pool" (Mufwene 2001) that is available for selection.

Another aspect of the study that can be expanded on in relation to the production tasks is the number of sounds that the study targets. Even though it is possible to work out by elimination that participants had not adopted FE in their speech by using only the five target sounds in the study /f, v, p, t, k/ (i.e. participants did not substitute /f, v/ with [p, b], and aspiration is observed for /p, t, k/ onsets unlike the non-aspirated variants of FE), it is difficult to establish what accent the participants have actually adopted since British and American norms are not actually distinguishable from these targeted fricatives and plosives. On the other hand, the substitution of /v/ with [w], which is not necessarily categorical in Hong Kong English, is perhaps the only feature that can allow us to establish whether or not the speech is Hong Kong-accented. Nevertheless, it is perhaps premature to draw conclusions about the L2 English accent of informants from just one sound alone, which is at the same time not an entirely clear-cut feature. A larger scale study could also include an investigation into vowels. With the support of acoustic measurement this could be a fruitful area for future study since the manner in which vowels are represented in the vowel space can differ from one accent to another, though

the documentation of vowel features for both Filipino and Hong Kong English is scarce which may make comparison with the literature less straightforward than it might be for the better documented American and British varieties. The impression from listening to the recordings is that some participants did actually produce a lower and more retracted variant of /æ/ which sounds Filipino in some words that contain such a vowel. Therefore, a research instrument which includes vowels, a more salient speech feature, can perhaps uncover more details about participants' L2 English speech production.⁵⁶

6.3 Attitude

As discussed earlier in the literature review section, the majority of previous work on language attitude has not dealt with the younger population. In the context of Hong Kong the youngest group of participants reported to have undertaken similar attitudinal studies was in their early teens. The findings from the verbal guise technique in this study, however, clearly show that even kindergarteners at the age of 4;6-6 possess implicit attitudes towards different varieties of speech. This is the reason why, for the most part, the personality trait ratings that they assigned are statistically significantly different from the middle value 3 in a 5-point Likert scale, with the exception of the ratings for the Filipino set given by the control group which yielded a marginal significance and the US set rating by the same group. In addition, these attribute ratings all incline to the positive end of the spectrum (with the above stated exception), indicating that the children generally have a positive attitude towards all the four accents targeted in the study (Filipino, UK, HK, and US). Since, as mentioned in the

⁵⁶ But the baseline values for Filipino English vowels would have to have been established before such a comparison between participants' and Filipinos' English vowels can be done. Since it is not one of main aims of the study to analyse the acoustic properties of individual Filipino English sounds, and adding to that the difficulty in locating Filipino participants in the research context, this measure has not been included in the research instrument, though it will clearly be a future direction to pursue as mentioned in the text.

methodology section, early childhood education in Hong Kong tends not to focus on anything negative, it is not surprising that children in the present study expressed a positive attitude towards the various target English varieties.

However, this is quite different from saying that youngsters at such an age do not yet have an attitude or inclination towards different speech varieties as a general positivity is not equal to an overall indifference or insensitivity towards a phenomenon, which would have been signaled by a rating point not significantly different from the middle value 3. This finding supports a recent report about three to six years-olds' awareness of attitude, race and ethnicity in Hong Kong (Chui 2012; Equal opportunities commission 2011). In this study, 152 three to six years old children were asked face-to-face about their attitudes towards people of different skin colours. It was found that some of the children at this age range hold more negative attitude towards people with darker skin.⁵⁷ The present findings accord with the suggestion that children in Hong Kong are quite precocious about social constructs including attitude towards varieties of language. This is also in agreement with Hirschfeld and Gelman's study (1997) which shows that pre-school children in the US are able to coordinate certain aspects of linguistic and social mappings even at the age of three. They believe people with unfamiliar clothing or people with darker skin are more likely to speak an unfamiliar foreign language. This provides evidence for young children's awareness of certain relationships between linguistic and social dimensions.

On the other hand, the secondary school students in the experimental group seem to hold a neutral rather than a positive attitude towards the Filipino variety as indicated by the average rating that is not significantly different from the neutral value 3 on the

⁵⁷ However, such a direct method is arguably subject to answering bias which makes the results less reliable, as discussed in the literature review.

5-point Likert scale. Conversely, the control group at this age rated Filipino significantly lower than the middle value 3. These ratings seem to suggest that the employment of a Filipino FDH has contributed to the less negative judgment towards this variety of English. This is perhaps due to the quasi-familial relationship that informants in such contexts have often developed with the Filipino helper (Ozeki 1997). The employers of these FDHs often treat the FDHs fairly well, hoping that in return these FDHs will take good care of their children while they are away from home (ibid.). This relationship is reciprocal to the extent that many of the FDHs have in fact built a close emotional tie with the youngsters they are caring for as they sometimes see them as substitutes for their family members back in their home country (Constable 2007; see also Pe-Pua 2003 for similar observations in the Spanish and Italian contexts). It is hence possible that the general positive relationship that employers and FDHs built up has contributed to the generally more positive attitude participants in the experimental group have towards Filipino-accented English when compared to the controls who obviously did not have such a contact to enable them to establish this form of intricate relationships with Filipinos.

Furthermore, as already pointed out in the discussion of the production data, participants' neutral to positive attitudes towards Filipino-accented English made it difficult to resort to a straightforward speech accommodation model to account for their non-production of such a variety. Another possibility is perhaps their clear preference for other varieties over the Filipino one as can be seen through the lowest rank that it receives from most participants except for kindergarten children in the control group. That is to say, in spite of the fact that informants in the study do not hold negative attitudes towards the Filipino variety, its relatively low rank against other competing varieties present in Hong Kong prohibits its adoption in production by speakers who possess at least a perceptual command of this variety.

Another interesting point to note about the findings from the verbal guise technique is that although the findings for the secondary school group (both the experimental and control group) largely resemble what has been reported in the literature, namely a preference for inner circle native varieties as suggested by the high rankings that US and UK English received (cf. section 2.4), this is not entirely true for the kindergarten controls who rated the Hong Kong accent the highest among all four varieties of English. Together with the findings from the secondary school group that reveal a neutral attitude towards the Hong Kong variety, these seem to suggest a gradual shift away from the well-attested linguistic self-hatred (Labov 2006b) and “complaint tradition” (Mesthrie and Bhatt 2008) reported in the local context of Hong Kong (Gibbons 1984; Hunter 1974, see also Bolton 2002b; Li 2009; Sewell 2010; Zhang 2009). In spite of the undeniable evidence of its systematicity with respect to various aspects including lexis, syntax, and pronunciation (cf. chapter 3), Hong Kong English has yet to be recognised as a legitimate variety by its own users (Bolton 2002a; c; Sewell 2010). Hong Kong has been infamous for its complaint tradition in relation to locals’ self-critique of their own English proficiency (see Bolton 2002b; also Mesthrie and Bhatt 2008). This self-criticism is often matched with external condemnation (e.g. Gibbons 1984; Hunter 1974); the following quote is illustrative of such a point:

For the majority of students entering the University of Hong Kong English is not a viable means of communication at all. About a fifth of them cannot make themselves understood in English, and their comprehension of spoken English is poor in the extreme. Few students can write English which is not bizarre (Lord 1974, cited in Gibbons 1984:66).

These sorts of complaints are in fact very common for varieties that are evolving in non-native, often postcolonial, contexts, as had been witnessed in places such as Malaysia, Singapore (Schneider 2011) and even for more established varieties in their earlier stages such as New Zealand English (Schneider 2007). Schneider (2003; 2007;

2011) proposes a *Dynamic Model of the evolution of Postcolonial Englishes* where ex-colonies are said to go through five distinct stages – foundation, exonormative stabilisation, nativisation, endonormative stabilisation, and differentiation - in developing their own norm of reference for their English varieties. The various stages are marked by different socio-political situations, and different states of identity and attitude construction as well as gradual linguistic developments. Foundation, being the initial stage, is essentially the phase where English is introduced to a new territory due to colonisation. In phase two the political situation tends to stabilise with English taking political prominence with reference to the exonormative (native) norms of the settlers; Fiji is an example of a place that is currently at the second stage of this model. Phase three sees the rise of local norms due to contact and gradual uptake of English by the (ex-)colonised population; Malaysia is said to be a good example of stage three. In phase four, local norms start to gain acceptance and are supported by linguistic confidence and the development of a new identity distinct from the coloniser; places that are at stage four include South Africa and Singapore. The final stage marks the separation of the local variety from the original coloniser's English and witnesses the local community taking ownership of their unique variety. Examples of phase five include Australia, Canada, New Zealand and the USA.

Hong Kong English is argued to be in the third phase of this developmental path (Groves 2011; Mesthrie and Bhatt 2008; Schneider 2003; 2007; Sewell 2010) which is marked by the emergence of local norms and a complaint tradition by educationists who lament the deteriorating standard of the population's English proficiency. The criticism and censorship against the use of local norms have impeded the progress of Hong Kong English (Pang 2003; Poon 2006) to the later stages in Schneider's model. In fact Kachru (1983) has long pointed out that unless a variety is recognised and accepted as a model, it will not acquire a status in its own community. Against such a backdrop, the present

findings which show a neutral to positive attitude towards Hong Kong English extend Zhang's (2010) finding that shows participants' mild positivity in terms of solidarity towards the variety. This is perhaps a possible sign hinting at the transition to the fourth stage in Schneider's model. Nevertheless, it remains to be seen if this neutral to positive attitude towards Hong Kong English is also found across the general population, and whether this will serve as a foundation stone for further developments of the variety is another area that is worth investigating in the future.

Chapter 7. Conclusion

Against the backdrop of a dearth of research that examines child second language acquisition under the influence of multiple varieties, this study set out to investigate children's L2 phonology acquisition in Hong Kong where input multiplicity is increased by the pervasive employment of Filipino foreign domestic helpers by Cantonese-speaking parents. These helpers add to the pool of L2 English present in Hong Kong which encompasses the local Hong Kong variety as well as inner circle varieties such as the British and American models for learners to potentially acquire. This doctoral study aimed to find out what happens when learners are exposed to varying L2 English input, and specifically whether learners are able to acquire the Filipino variety to which they are exposed from an early age. In addition, the study aimed to explore the potential relationship between learners' L2 English production and their attitudes towards various varieties of English. Findings generated from the research instrument which included tasks on L2 English perception and production that targeted plosives /p, t, k/ and labio-dental fricatives /f, v/, as well as language attitudes towards Filipino-, HK-, UK-, and US- English highlight the complexity involved in the context of input multiplicity. Not only have we observed a discrepancy between perception and production vis-à-vis Filipino English, but at the same time participants' non-production of this variety is not easily explainable through their language attitudes.

The perception tasks - a picture choosing task, and a sound discrimination AX³ task - show that learners in all groups were able to acquire the three varieties of English they were exposed to, namely Hong Kong English, British English and American English. In addition, participants in the experimental group, who were exposed to Filipino-accented English, were able to acquire the phonology of this variety as indicated by their relative success in completing the tasks that tap into the five onsets (/f, v, p, t, k/)

that are characteristic of Filipino English; in the Filipino variety that is commonly heard in Hong Kong, /f, v/ are sometimes substituted by [p, b], while the stops /p, t, k/ are not often realised with the aspiration that is typical of plosives in this position in the other three varieties. These differences suggest that the acquisition of a given L2 variety will take place when input of that variety is available to the learners. This confirms the predictions made by mainstream L2 phonology acquisition models (i.e. the Speech Learning Model (Flege 1995); and Optimality Theory (Prince and Smolensky 1993; 2004)) that were discussed in the literature review chapter (cf. section 2.2), particularly with respect to pre-puberty L2 learners whose exposure occurs when they are still within the critical period. However, these models did not make explicit claims about acquisition contexts where multiple varieties exist. Learners in both the experimental and the control group who were exposed to Hong Kong, British, and American English from school and in their surroundings were able to perform more or less equally well in the picture choosing task that targeted these three varieties. Furthermore, learners from the experimental group but not the control group showed a perceptual command of the Filipino variety in the picture choosing task as well as the sound discrimination task which was specifically designed to probe their abilities to differentiate potential confusion pairs that are instantiated distinctively in the Filipino variety. The fact that participants who were exposed to this type of English did significantly better than the control group consistently across both perception tasks provides strong evidence for their superior perceptual knowledge of the variety even though the Filipino variety is neither the community nor institutional norm.

However, the perceptual knowledge that participants have does not necessarily translate into the adoption of the Filipino variety in their own speech. The production tasks - a picture naming task, and pair matching task - which again targeted the same five onsets showed that informants adopted virtually none of the Filipino features in their English

production. This is so even in the trial for which participants had to complete the pair matching exercise with recorded Filipino-accented English speech, in an effort to simulate a context in which Filipino-accented features could have surfaced. These findings underscore the importance of not only triangulation within each individual testing domain (i.e. L2 speech perception, and L2 speech production), but the importance of cross-validation of results from various angles. Had the study only incorporated production tasks as a test for participants' knowledge of Filipino-accented English, one would have been forced to conclude that these participants have somehow shunned acquiring the code to which they are exposed from an early age. Such a conclusion would go against our existing knowledge about language acquisition, namely the fact that sufficient exposure to a target language (especially before puberty) leads to the successful acquisition of that given language. Concurrently, this seemingly fits nicely with the Ethan Experience (Chambers 2002; 2005) that was dissected in the discussion of the production data where second/third generation immigrants apparently skipped the acquisition of their parents' accented L2 speech. However, with the benefit of the previous discussion about the perception data, this we know is in fact quite a distorted conclusion. Once perception data is also taken into consideration, it immediately becomes obvious that learners' non-production cannot be unambiguously regarded as evidence of non-acquisition of the Filipino variety. In fact, all that can be conclusively said is that participants had not adopted Filipino-accented English in the experimental setting. Whether they would produce such an accent under more favourable conditions (e.g. with a Filipino interlocutor, or with Filipino peers) is a matter that deserves further investigation, as already pointed out.

This discrepancy between the data collected from perception tasks and production tasks highlights the notoriously complex relationship between perception and production in language acquisition (see Hendriks and Koster 2010) as well as in L2 speech studies

(e.g. Bradlow 2008; Bradlow, Pisoni, Akahane-Yamada and Tohkura 1997; Bradlow, Akahane-Yamada, Pisoni and Tohkura 1999; Leather 2003; Neufeld 1988; 1997; Rochet 1995; Sheldon and Strange 1982; Strange and Dittmann 1984). Whether perception precedes production or follows it or in fact whether the two realms of knowledge develop hand in hand is still a matter of debate. The multifarious relationships between speech perception and production also underline the essentiality of teasing apart the fine distinctions between “the absence of evidence” and “the evidence of absence”, where the former does not necessarily imply the latter. In the present study the absence of evidence from the production data does not directly warrant a “non-acquisition” conclusion. As has been argued earlier, the non-production of Filipino-accented English cannot automatically be treated as evidence of the absence of such a phonological system among the learners. In fact, the fuller account of learners’ acquisition can only be provided when perception data is also scrutinised, which in the present study clearly shows participants’ perceptual command of the Filipino variety. This is a valid and crucial methodological concern one has to address in designing any acquisition study, particularly so when input multiplicity adds extra layers of complexity to an already intricate picture.

Apart from the asymmetry between L2 speech perception and production, the current context with input multiplicity also brings the issue of representation robustness to the fore. Although the data show that the key prediction of L2 phonology acquisition models is largely right, namely the prediction of acquisition occurring upon exposure to the target input, further scrutiny reveals that the nature of the acquisition of Filipino English is less clear/categorical than one would normally expect from a monolingual setting or a second language acquisition context where the target input is relatively more available. In spite of the fact that participants did better in the perception tasks targeting the Filipino variety compared to the controls, their average performance is dissimilar to

what would normally be considered native-like. This was argued to have been caused by the limited exposure participants had to Filipino-accented English, which was restricted to the (mostly) female Filipino helpers they had at home. This input was quite different in that it came from a single individual whereas the input they obtained for other varieties came from various speakers across numerous domains beyond the household. It is the lack of exposure to variability of the Filipino variety that was argued to have led to participants' relatively poor performance in the perception tasks compared to their ability to perceive the other three varieties of English in this study. This finding raises the question of how much input is enough for one to develop sufficiently robust phonological categories to perceive speech produced by novel speakers not previously encountered. The necessity of having adequate exposure to inter-speaker variability in L2 speech acquisition finds support from studies which show that learners exposed to structured variability during training are able to establish stronger representations of phonological categories that allow them to generalise to speech produced by novel speakers with different speech characteristics than the talker who they are used to (cf. Bradlow and Bent 2008; Clopper and Pisoni 2005; Perrachione et al. 2011; and section 6.1). Even though exactly how much inter-speaker variation learners have to be exposed to in order to establish categories that are robust enough for them to perform at a native-like level is still subject to empirical testing (cf. Logan et al. 1991), this does emphasise the need for researchers to scrutinise input with circumspection in the context of input multiplicity, and indeed in other acquisition settings as well. In other words, it is insufficient to simply say that exposure to input will automatically lead to acquisition, but at the same time the matter of how much input and how much inter-speaker variation is needed for learners to acquire robust phonological categories should also be carefully investigated.

The sociolinguistic instrument - the verbal guise technique - reveals that even children

at the ages of 4;6 to 6 have attitudes towards the four different varieties of English (Filipino, Hong Kong, British, and American English). In spite of the fact that youngsters showed positive attitudes towards almost all of the targeted varieties in the task, it has been argued that a general positivity towards a construct is not equal to a general insensitivity or indifference towards it. This is supported by the findings that participants assigned a rating that was significantly different from the middle value, 3, in the 5-point Likert scale for most of the guises, with the exception of the control group who assigned a marginally significantly different rating to the Filipino accent and a value that is not significantly different from 3 for the US guise. On the other hand, participants in the secondary school group showed a neutral attitude towards the Filipino accent as well as the Hong Kong accent, while the control group rated the Filipino accent negatively and Hong Kong accent neutrally. Both the participants and the controls in this group rated the American and British guises positively with a preference for American English over the British guise.

The neutral to positive attitudes assigned by the participants in both age groups made it challenging to apply the speech accommodation model or audience design to explain their non-production of Filipino-accented speech (cf. the production discussion). These models posit a negative attitude towards a variety to be one of the causes of divergence from that code. Therefore, given the neutral to positive attitudes informants have towards the Filipino variety, these models cannot be applied straightforwardly. One of the possible accounts as argued in the discussion of the production data (cf. section 6.2) is that learners have come to realise that the Filipino variety is not the community norm or the institutional model that is taught in school; they hence had not adopted such a variety in their production. In other words, they have acquired the sociolinguistic competence of being aware of when to say what to whom, which enabled them to select the right code to use in a given context (cf. Fishman 1965; Hymes 1974). This ability to

use the appropriate code with the appropriate person in the appropriate setting has been found in young bi-/multi-linguals who are aptly able to use the relevant language in relation to their interlocutors and the context (Nicoladis and Genesee 1996; Paradis and Nicoladis 2007; Tare and Gelman 2010; 2011; and section 6.2). Whether this operates at a level below consciousness for younger speakers is an area that is worth investigating. Another possibility is that informants' overt preference for the inner circle varieties barred the adoption of the Filipino variety which appeared amongst the bottom of the overall rankings that they assigned to the four accents the study targeted. The preference for inner circle varieties is in fact well attested in the context of Hong Kong. It is perhaps not surprising then that participants had not opted for a variety that they do not necessarily loathe but which they have no strong preference for, especially compared to the preferred American and British models. Nevertheless, as the present study is limited to exploring whether Filipino English has been adopted, a follow up study looking at the actual variety that participants produce will allow us to verify this postulation.

Another aspect that is worth noting about the attitude data is the finding that the Hong Kong accent no longer receives a negative evaluation as previously reported in the literature. If the findings gathered from the current population can be replicated in a larger study that looks into the general public's attitudes towards this variety of English, it perhaps suggests that Hong Kong English is ready to develop further in its own right and move out of the shadow of inner circle varieties, in particular the British and American models that have been revered in the local context. This in turn can be related back to participants' non-production of Filipino English because they do not regard it as part of their identity (Le Page 1986; Le Page and Tabouret-Keller 1985), whereas the increasingly positive attitude towards Hong Kong English may actually be signalling

the gradual incorporation of such an entity into their Hong Kong identity.⁵⁸ Nonetheless, this is another area for future pursuit since this study did not incorporate elements that examine identity issues.

Besides answering the research questions posed at the beginning of this thesis pertaining to participants' acquisition of the phonological system of various English varieties, the nature of learners' acquisition of the Filipino variety, the usefulness of L2 speech learning models in the context of input multiplicity, informants' attitudes towards the four English varieties, and the relationship between these attitudes and learners' speech production, the current study can potentially shed light on the English language teaching debate surrounding the employment of native or non-native English teachers. The findings that participants and controls performed equally well in the picture choosing tasks aimed at Hong Kong-, British-, and American- English seem to suggest that the presence of Filipino English speaker/"non-desirable" accented speech will not jeopardise the acquisition of other varieties of English so long as the availability of those varieties is guaranteed, in the present case through the ambient variety (Hong Kong English), native English teachers (NETs for British and American English) and the media (for all three varieties). This together with the research reviewed in the context section (cf. chapter 3) which suggests that exposure to input from live-in Filipino helpers has a positive effect on the acquisition of L2 English by children in various areas of competence (e.g. lexis, reading abilities, and phonology) might have a major impact on how those who favour native English teachers construe their arguments against the use of non-natives (see Cook 1999). Similarly, this point can also be upheld when research fails to support the claim that non-native English teachers will have a detrimental influence on students' L2 English acquisition (on other varieties). The latter

⁵⁸ It is noteworthy though that in the context of Hong Kong, the use of an admixture of Cantonese and English is seen as the marker of Hong Kong identity (Ho 2008).

of the two is exactly what was shown through the picture choosing task in the present study. In other words, it is unjustified to simply reject the employment of non-native English speaking teachers on the grounds of their accent or the variety that they speak, especially in the context where resources to ensure input from other varieties are available.⁵⁹ For instance, Sumdangdej (2007) found that Thai children were able to acquire the word stress system of British English after they were exposed to this variety via age-matched recordings introduced in the classroom (see also Young-Scholten in press).

Furthermore, the additional outcome of participants having superior abilities in listening to Filipino English compared to the controls can be seen as a welcome benefit in a society where there is a continuous upsurge in the numbers of non-native English speakers. The population of speakers who speak English as a second language is rising rapidly and has long exceeded the total number of native speakers (Crystal 2008). Crystal estimated the total number of English speakers to be two billion at the time of his writing; that is to say for every one native speaker, there were three or four non-native speakers, a ratio that has likely increased with time, as predicted by Graddol (1999). In other words, it is increasingly the case that English is used as a lingua franca among people who do not share a native tongue to communicate with each other instead of being used to converse with native English speakers (Graddol 2006). Against this backdrop, the command of other varieties of English is an asset that will allow people to communicate effectively despite being dissimilar to native English speakers' norms. In fact, researchers such as Derwing, Rossiter and Munro (2002) and Jenkins (2000) have

⁵⁹ But of course, as suggested in the discussion of the perception data (cf. section 6.1), how to make best use of multiple input to strengthen one's acquisition is still uncertain; one thing we know for sure, as found by Perrachione and his team (2011), is that the training materials have to be systematically structured to serve the purpose of enhancing the learning of phonological categories.

advocated the need for and desirability to educate native English speakers about other varieties of English so as to facilitate efficacious communications in the global arena where success depends on the abilities of both the speaker and the listener to understand each other (Lindemann 2006). Others have also made similar suggestions regarding the need to “revise the importance of ‘the’ native speaker model” (Hundt and Vogel 2011: 162) in a globalised world where non-native varieties of English are starting to impinge upon native varieties. Returning to the context of Hong Kong, Filipino English continues to be viewed as inferior as shown by the low ranking it receives in accent rating studies like Zhang (2010) and the verbal guise task of this study despite the fact that Filipinos are actively sought by middle class families to provide extra English input for children. As a matter of fact, parents often find themselves in a dilemma as field notes taken through the data collection process of the present study unveil. Most parents acknowledge the fact that the presence of a live-in English-speaking FDH will increase the opportunity for their children to practise English. Yet, they are somewhat reluctant to admit that these FDHs have a positive effect on children’s L2 English acquisition. Many parents indeed express concern over the potential of the FDHs’ accent permeating their children’s English. The following comments collected during the pilot in 2009 and the actual data collection in 2011 are illustrative of such a point:

I encourage my friends to choose carefully when selecting their maids (FDH); they shouldn’t just go for anyone, but a person who doesn’t have a strong accent. (Parent 1, in translation)

When I notice a pronunciation problem, I wouldn’t just try to work on the level of my child, but correct the pronunciation of my maid (FDH). (Parent 2, in translation)

If I hear a Filipino pronunciation from my child, I will correct it as it’s a mistake because English shouldn’t be pronounced in such a way. (Parent 3, in

translation)⁶⁰

This worry, though plausible, is not borne out by the current investigation. This research shows unequivocally that the presence of FDH speakers in a family exerts minimal Filipino influence on children's L2 English speech production. It will be interesting to find out how parents reconcile these findings from emerging scientific inquiries with their dissonant cultural views.

All in all, this doctoral study has drawn attention to the complexity involved in an acquisition setting where multiple varieties exist. In fact, this perhaps pioneering effort to study second language acquisition in the context of input multiplicity should by no means be confined to Hong Kong. Other countries and places such as Canada, Cyprus, Italy, Saudi Arabia, South Africa and Spain also commonly employ foreign domestic helpers (see Bakan and Stasiulis 1997; Constable 2007; Kambanaros, Grohmann, Michaelides and Theodorou 2012; Pe-Pua 2003; Shaalan 2009). It will hence be interesting to replicate and possibly expand the scope of this study to cover other areas of language in these places where input multiplicity is also vividly present. Relating back to the more prevalent SLA setting, without FDHs, the present study is also relevant in pointing out that, at least for English, homogenous speech communities are increasingly rare in the current age of mobility. That is to say, the knowledge gained through this study will be pertinent for understanding SLA in general since it is no longer sufficient to assume purely monolithic input as the raw material in any L2 English context (and for other second languages as well). One must wrestle with the reality that (S)LA is constantly under the influence of input multiplicity, and that we see through this doctoral study that this can have implications for the nature of acquisition

⁶⁰ It is worth pointing out that parent 3 is herself a kindergarten English teacher. As a gatekeeper in the education system her belief might be regarded as authoritative by students. This is perhaps another reason why the view of purists, who defer to native speaker norms, seems to perpetuate in Hong Kong.

as well as learners' code choice. This study, with its limitations pointed out in various sections, has only addressed some facets of the complicated acquisition picture with multiple input; other areas such as the influence of parents and teachers on learners' code choice and issues of identity are yet to be explored. Nonetheless, it is hoped that the present effort will stimulate more research on second language acquisition under the influence of input multiplicity. This will certainly add to our understanding of second language acquisition, allow us to reflect on existing SLA theories and possibly impact on the method of assessing attainment in L2 phonology as well.

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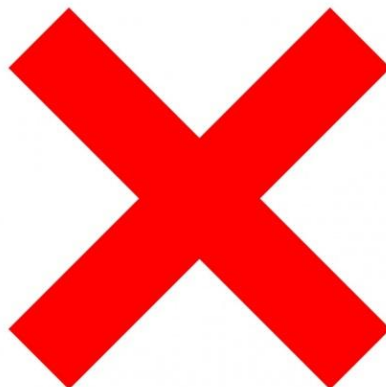
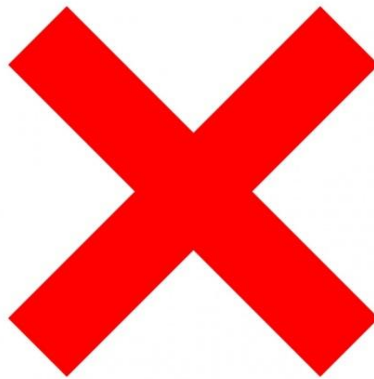
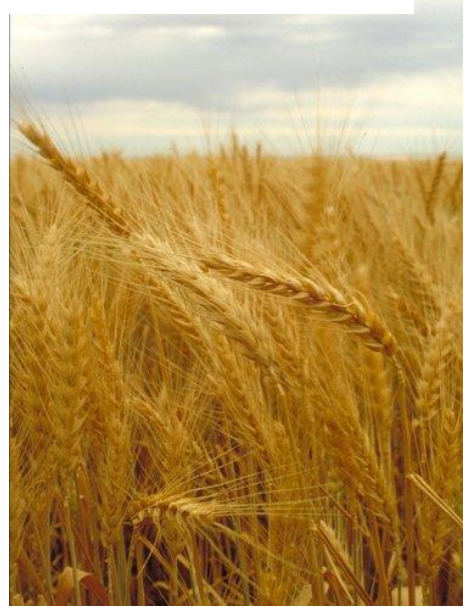
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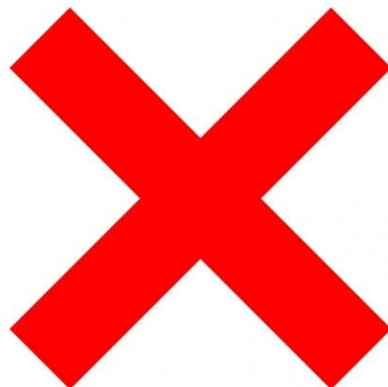
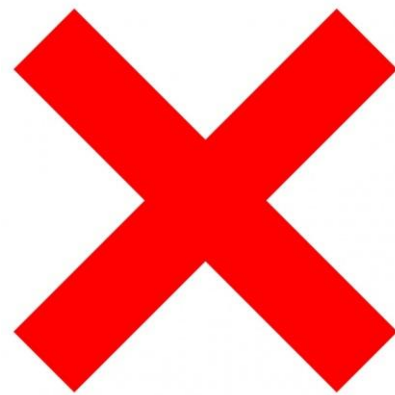
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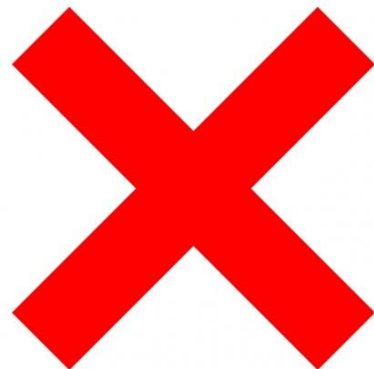
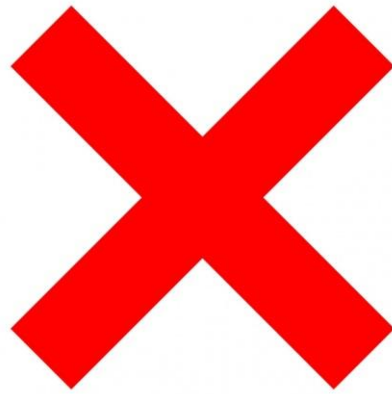
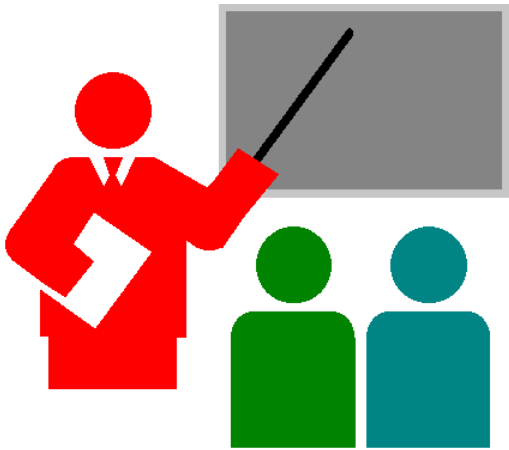
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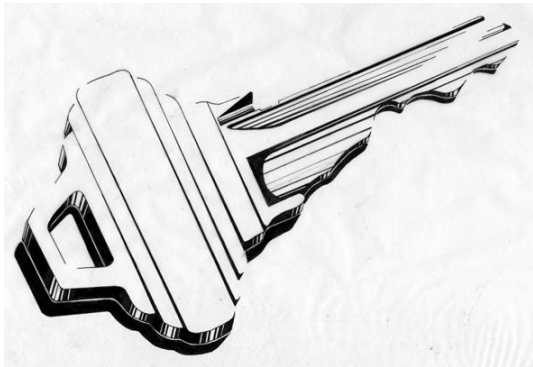
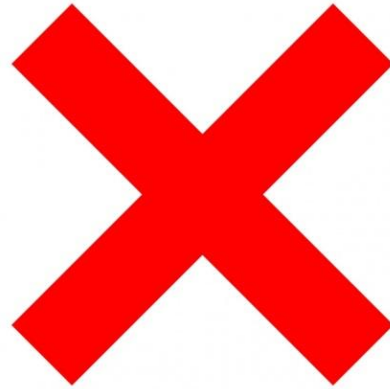
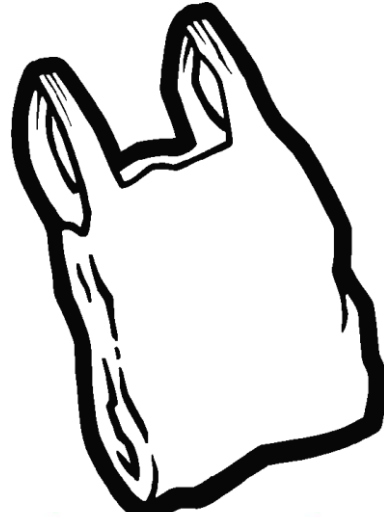
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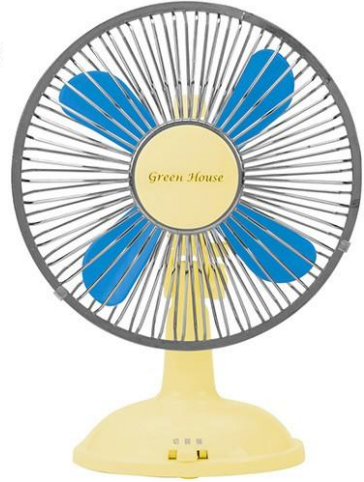
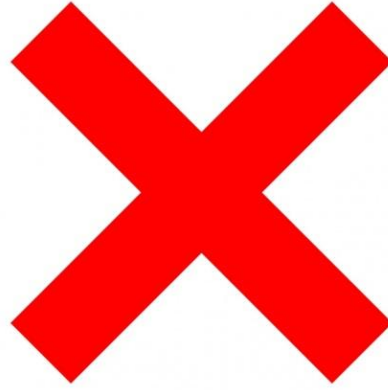
Appendix 1.1 – Pictures used in the picture choosing task (Filipino set)

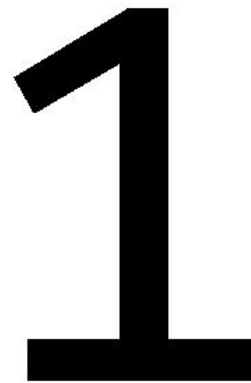
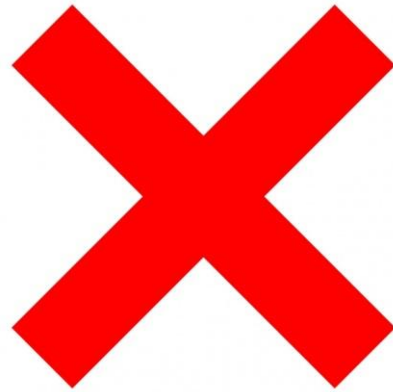


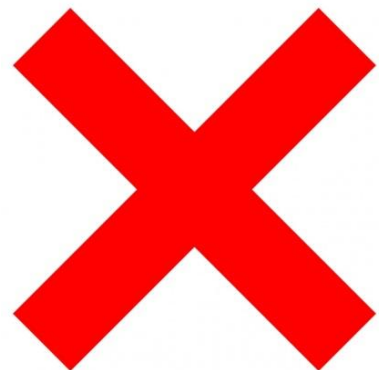
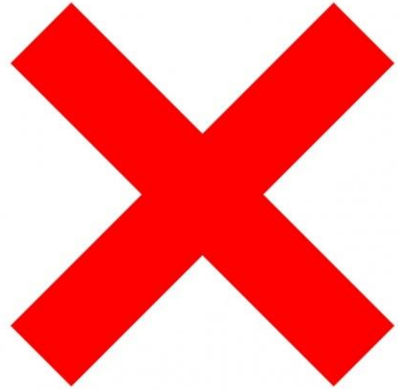


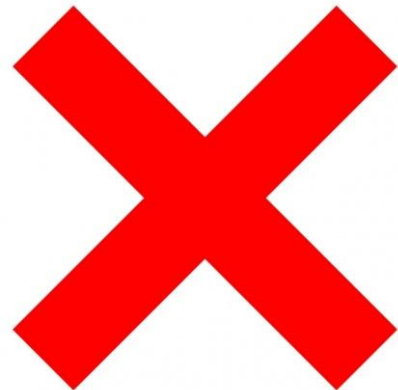
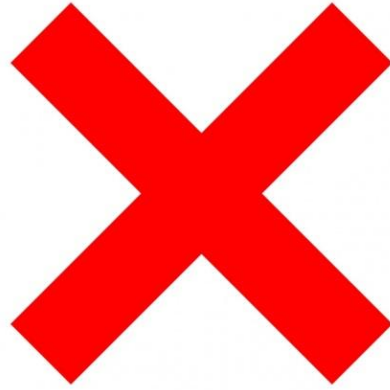


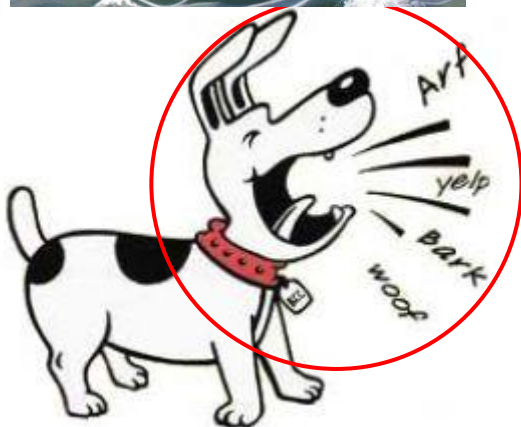


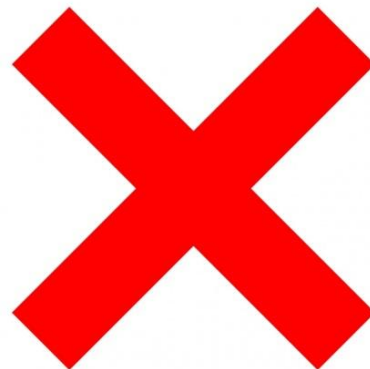
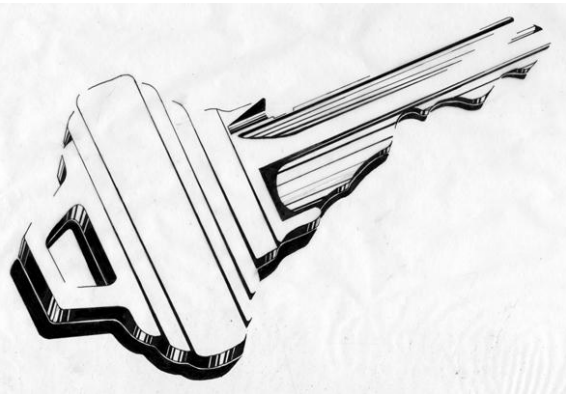
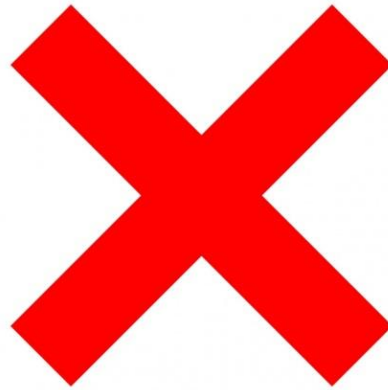


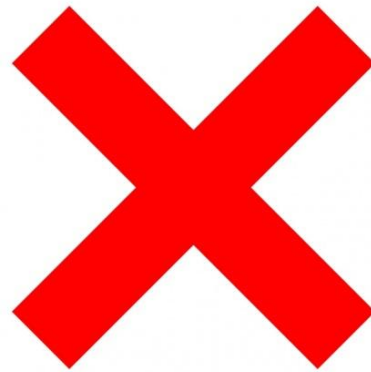
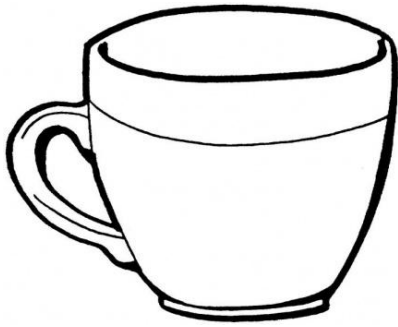
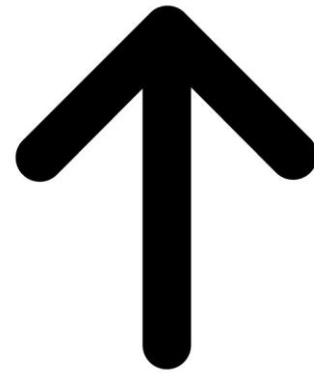


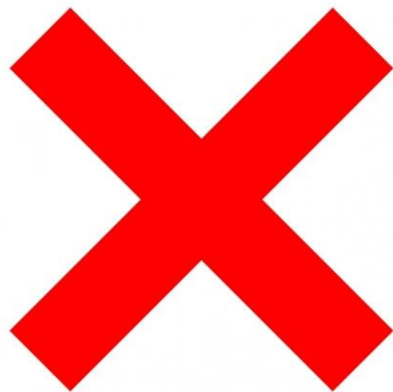
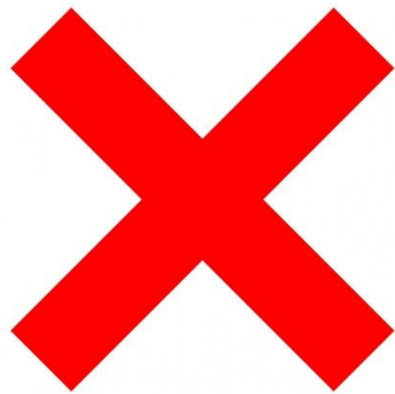


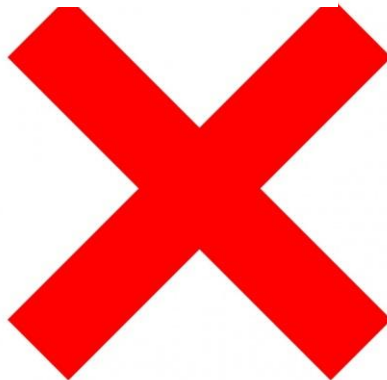
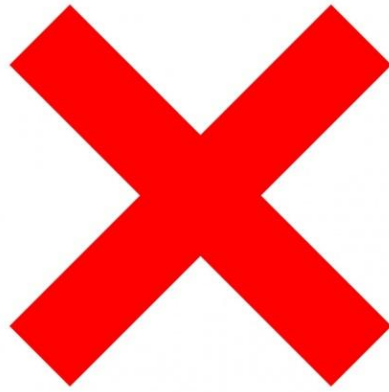


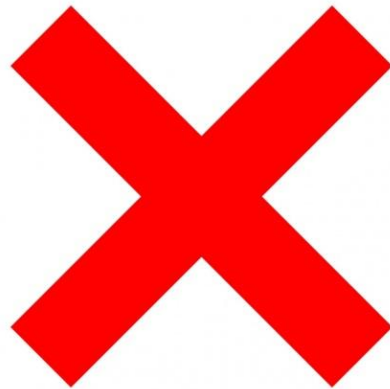
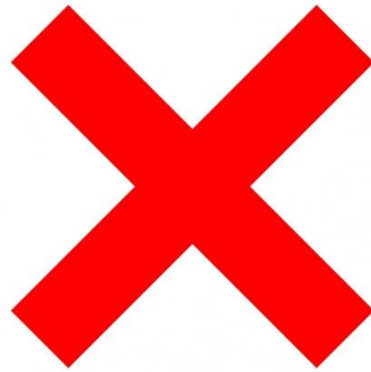


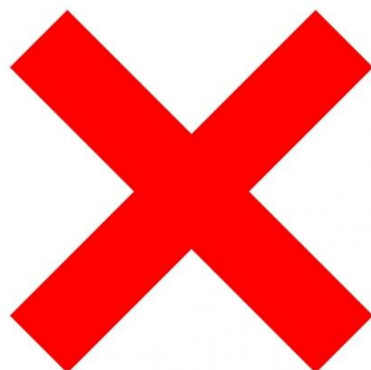
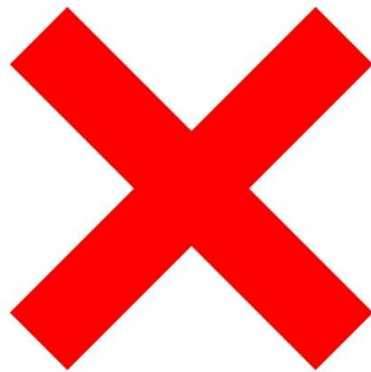


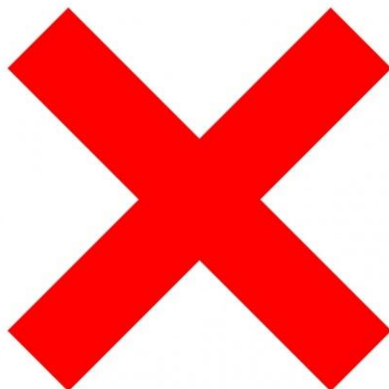
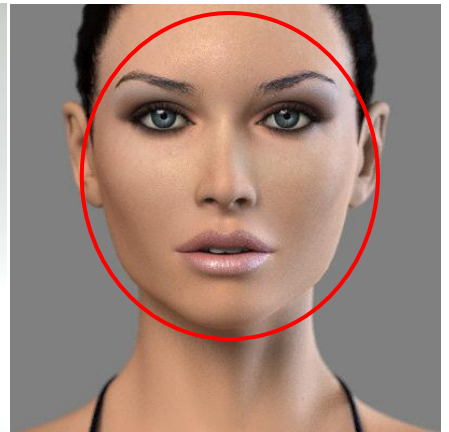
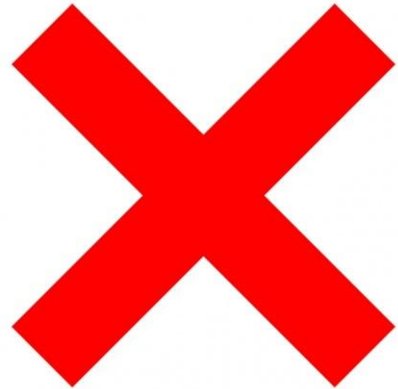




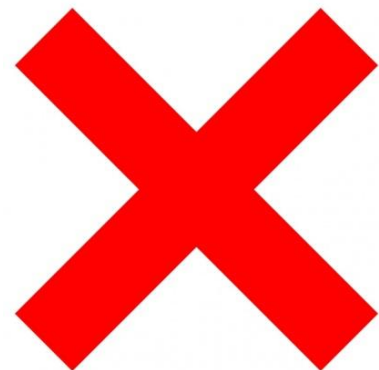
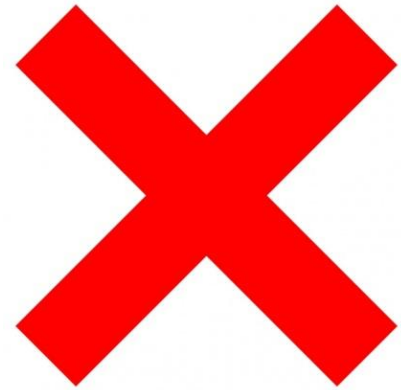


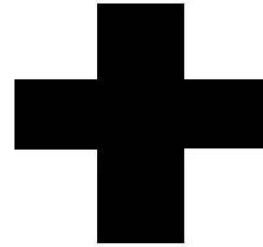
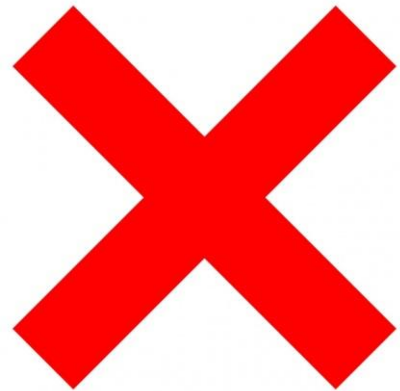




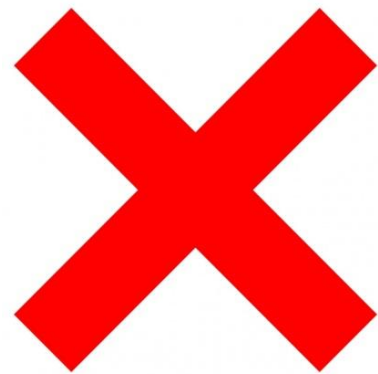


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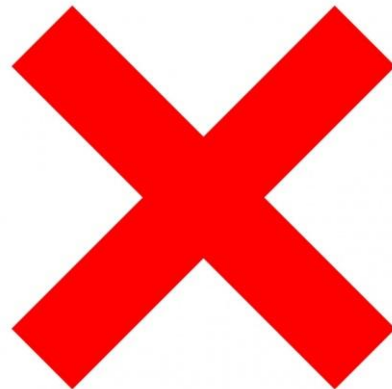
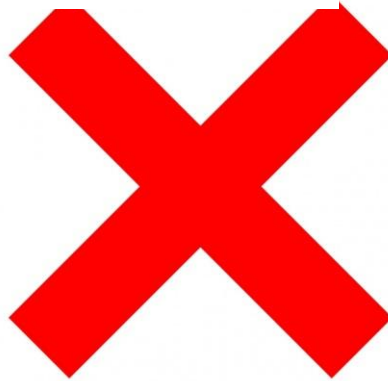


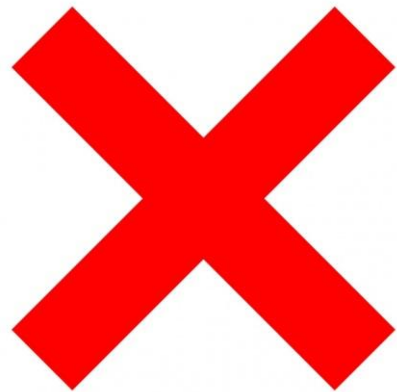
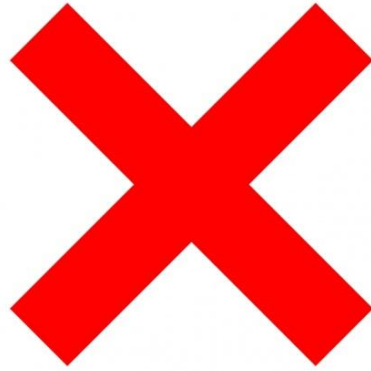


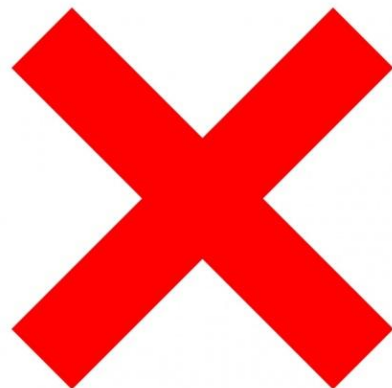
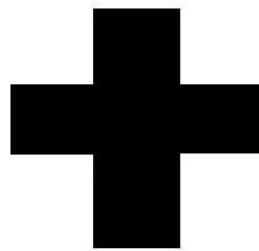
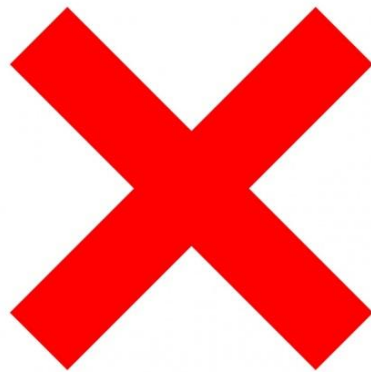
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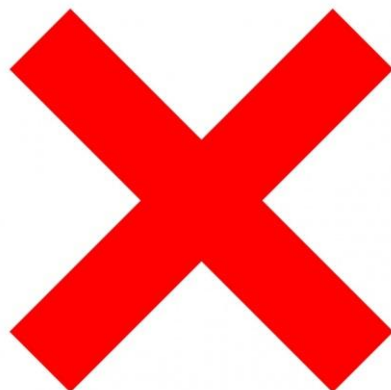
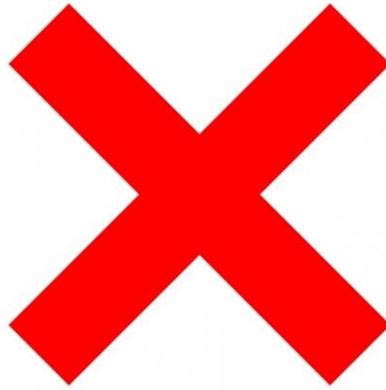


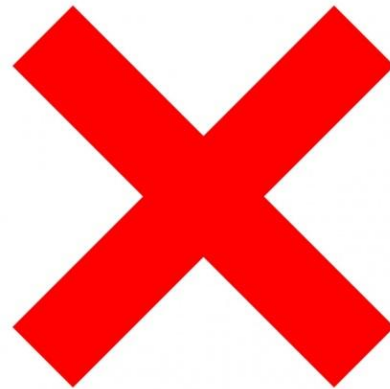
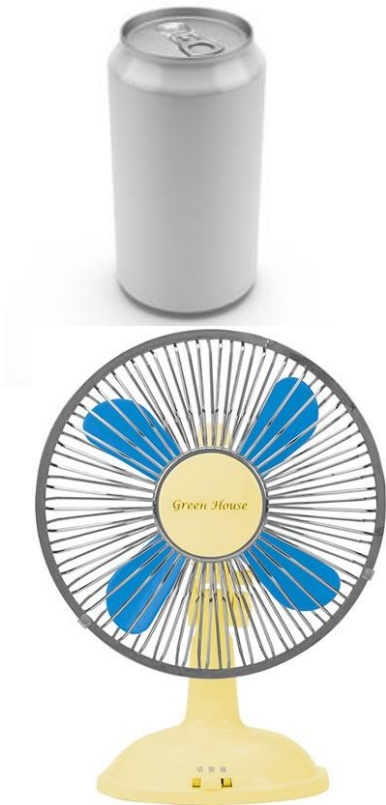
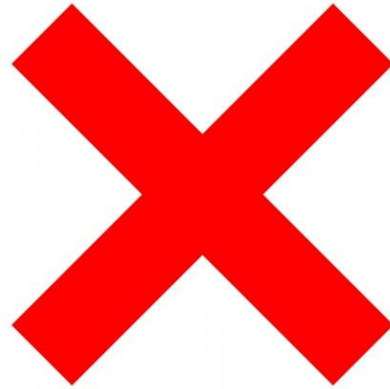
Appendix 1.2 – Pictures used in the picture choosing task (UK set)

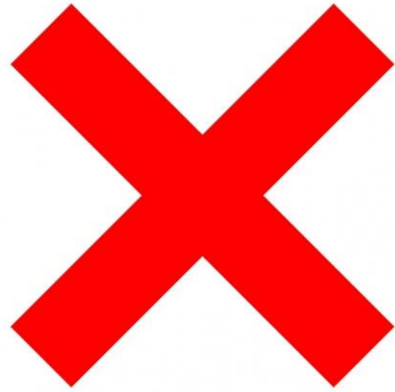
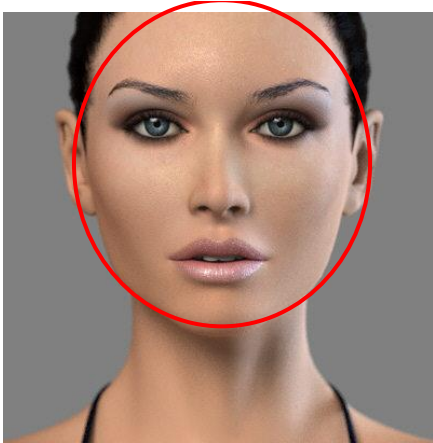






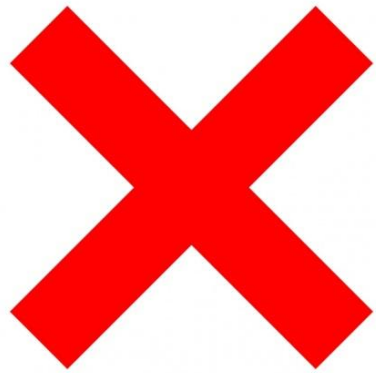




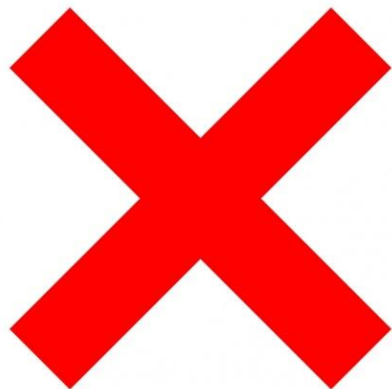
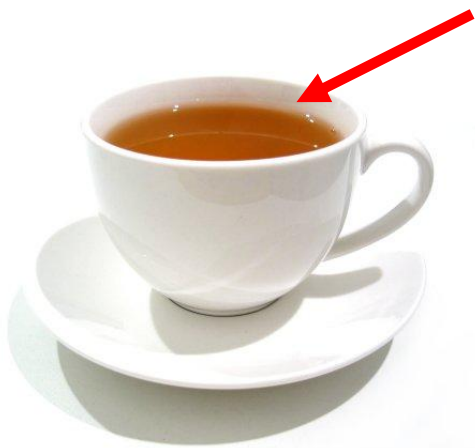


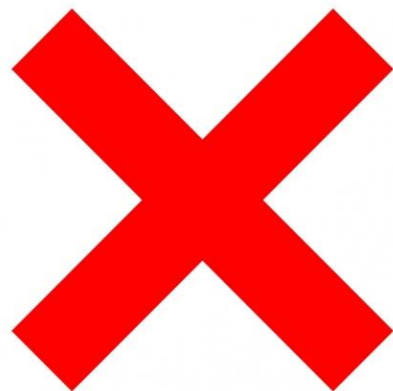
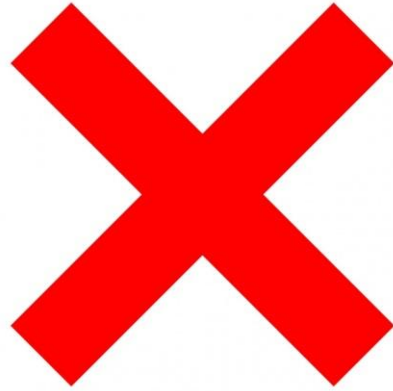
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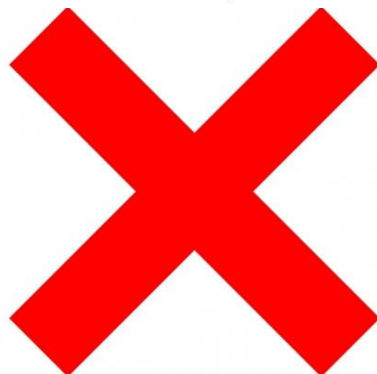
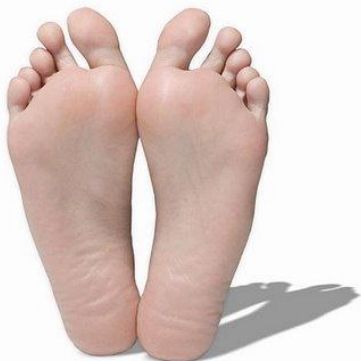
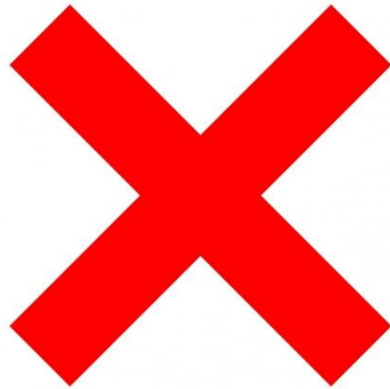


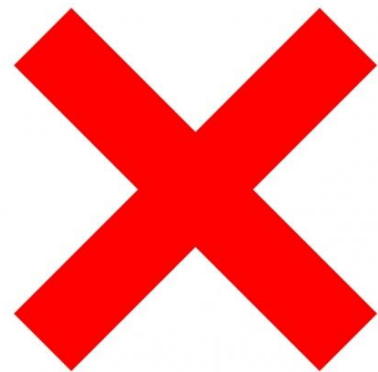
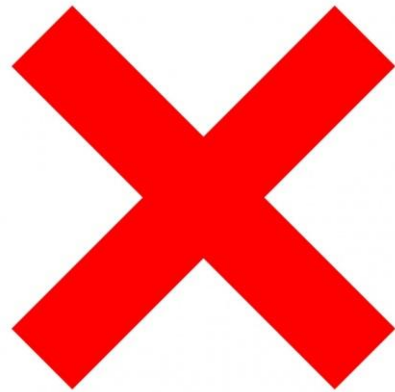
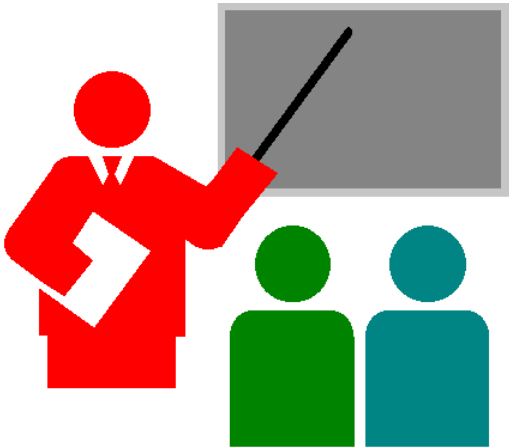


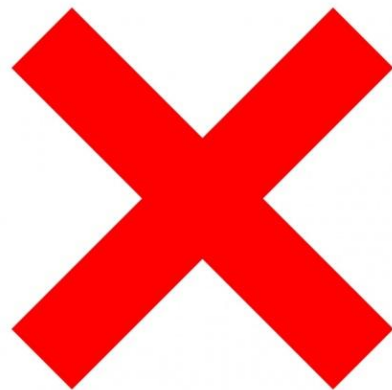
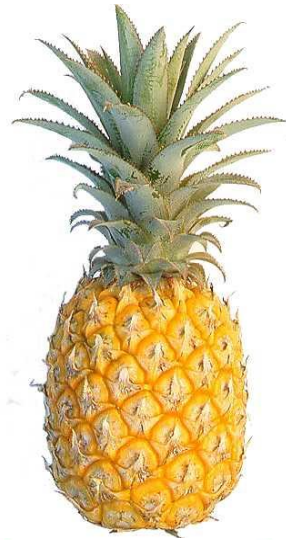
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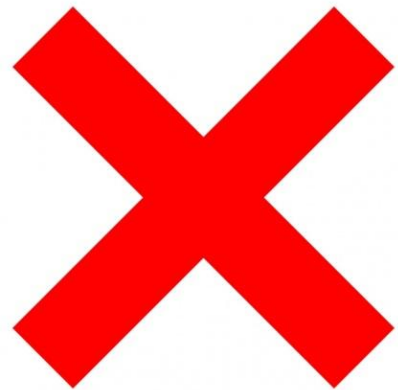


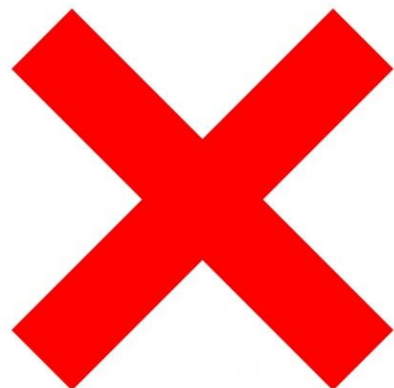
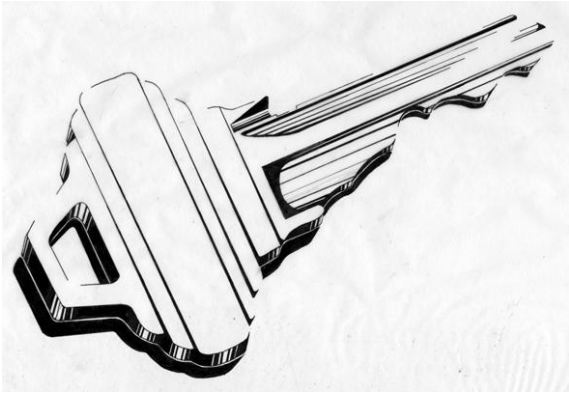


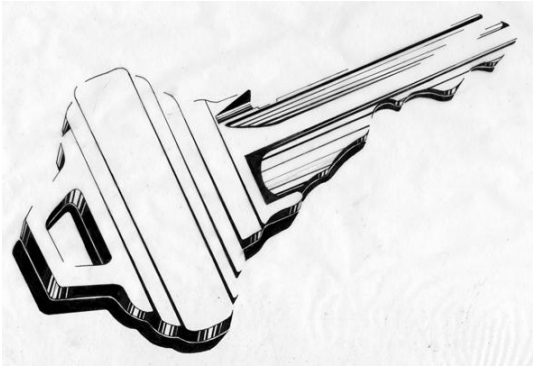




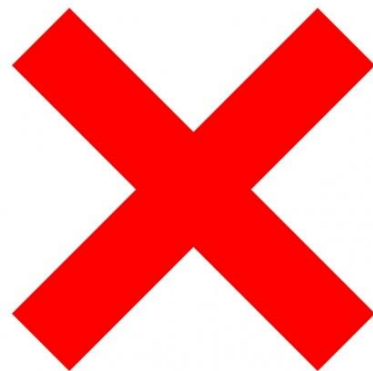
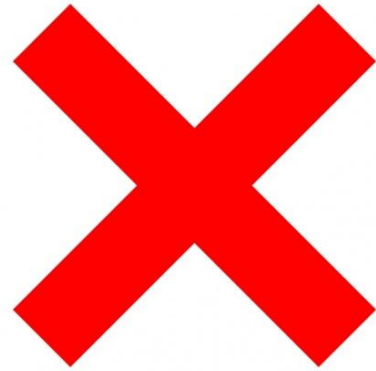
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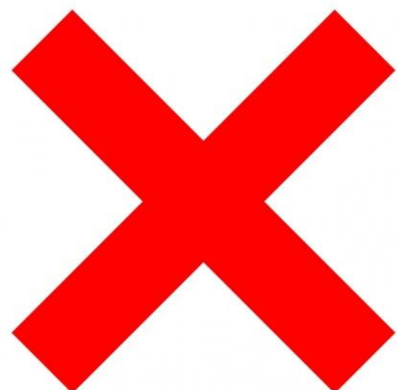
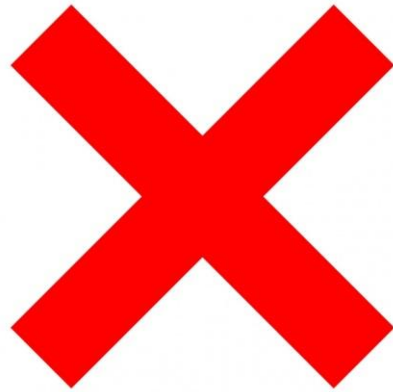


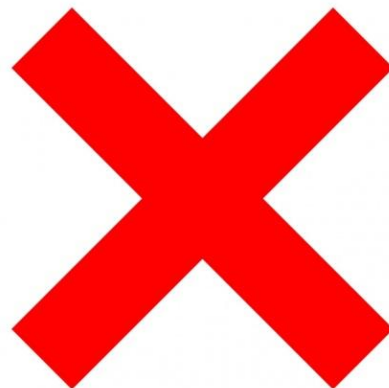
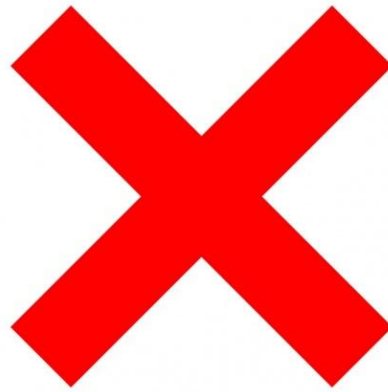


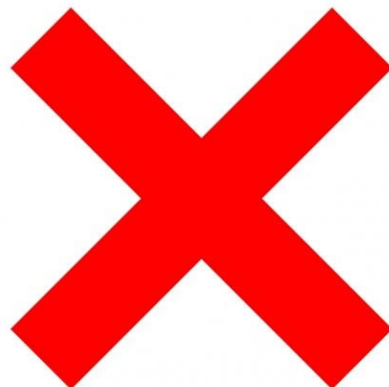
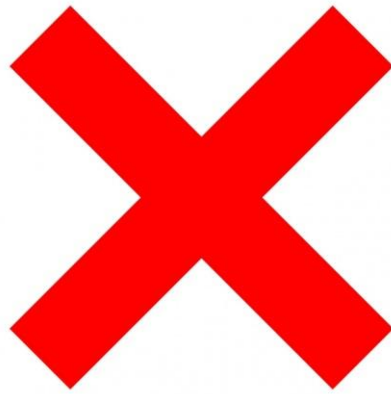


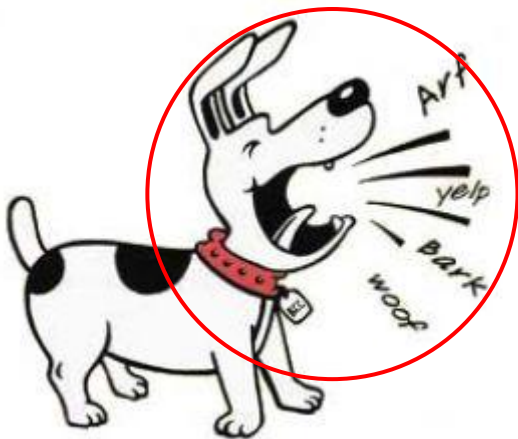
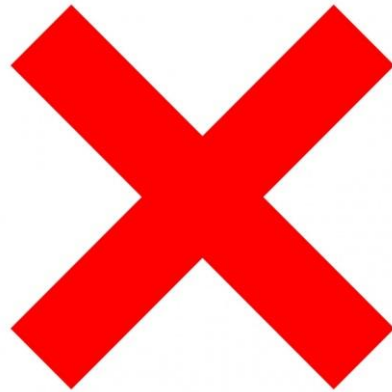
E

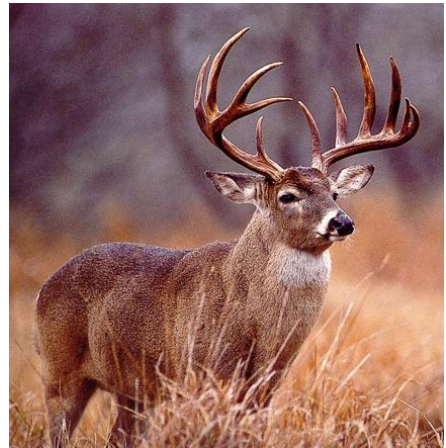
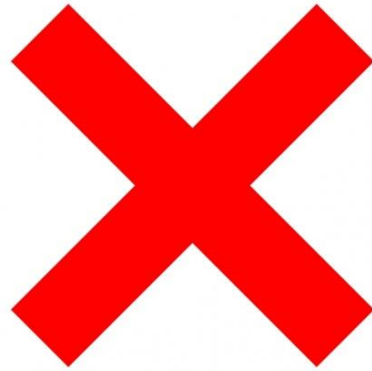
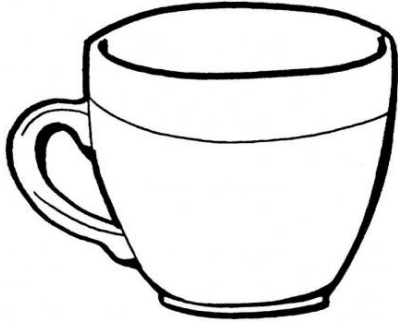
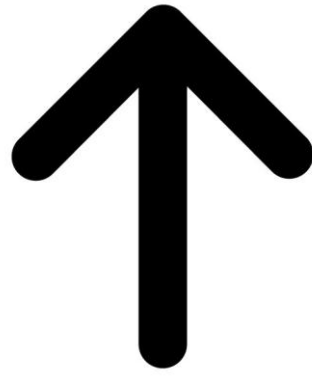




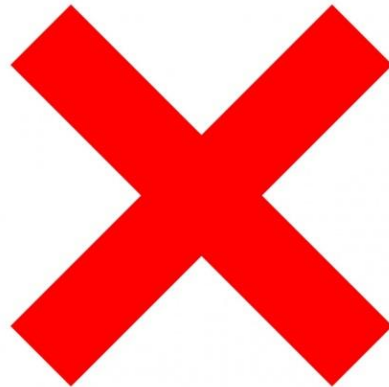
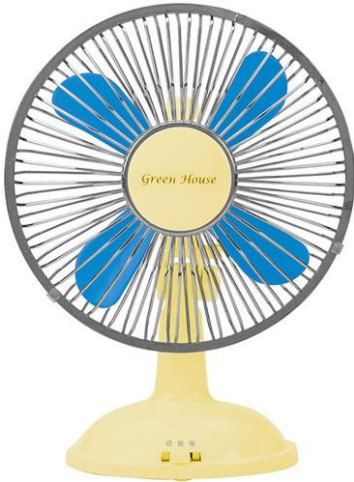




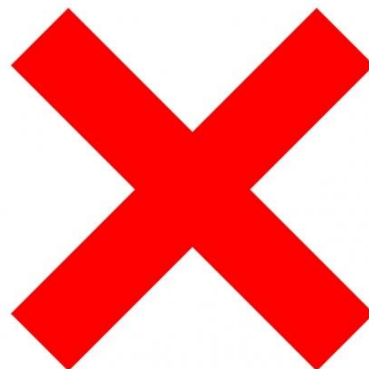


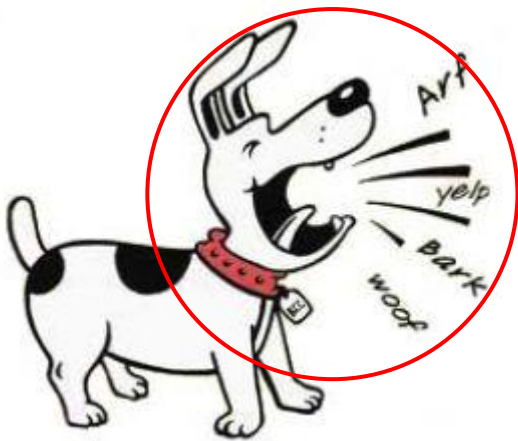


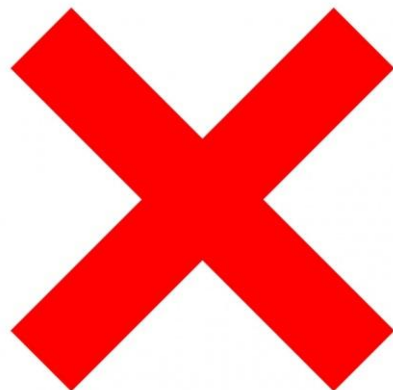
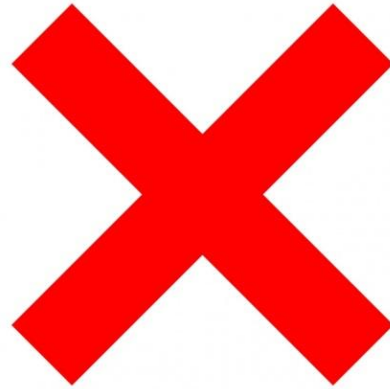
Appendix 1.3 – Pictures used in the picture choosing task (HK set)

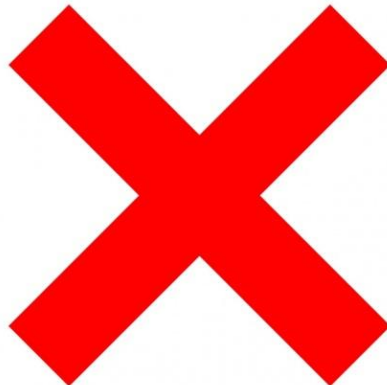


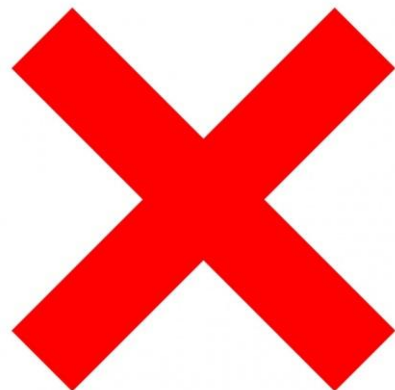
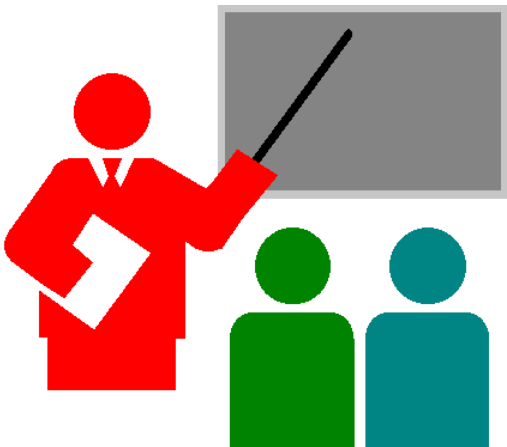
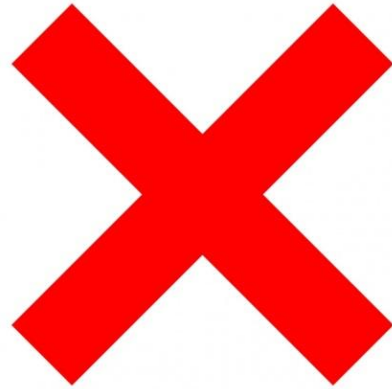
Do

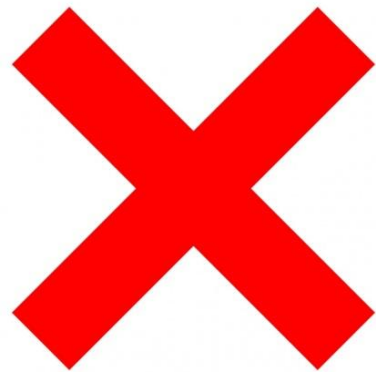
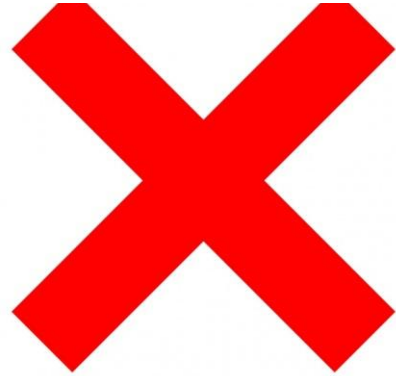


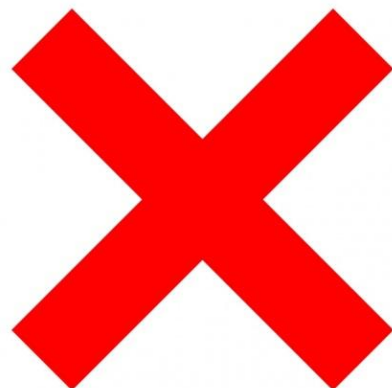
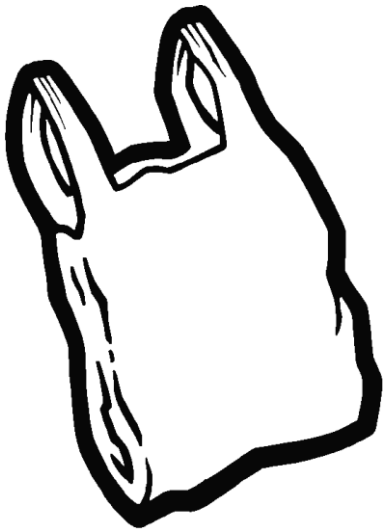
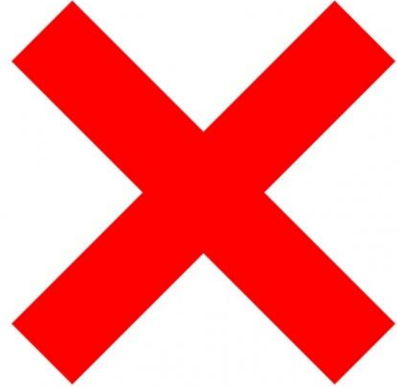


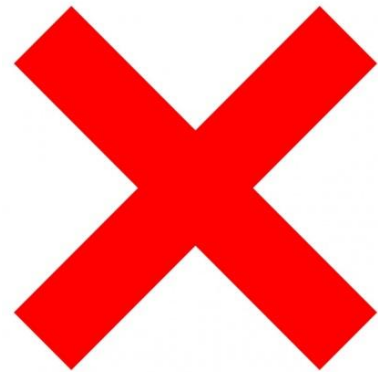
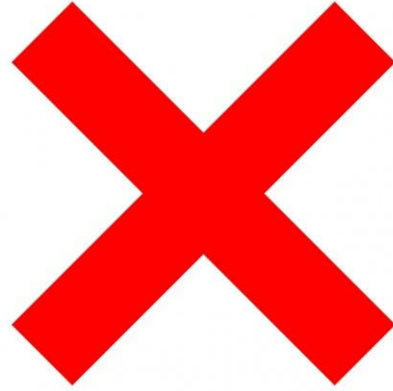


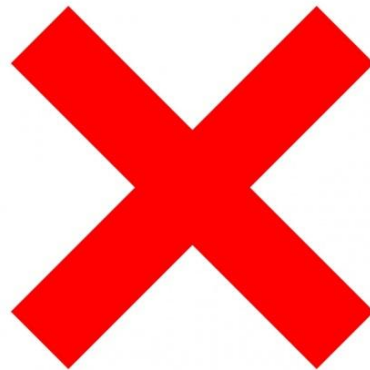
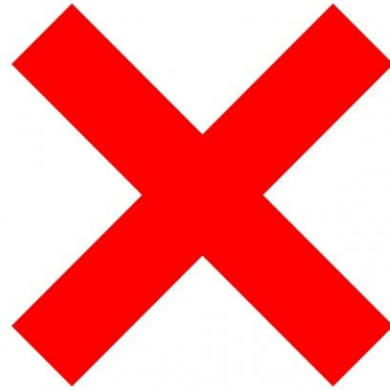


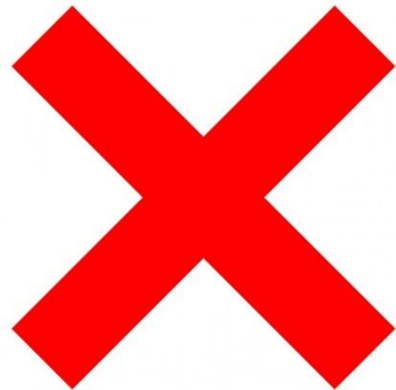
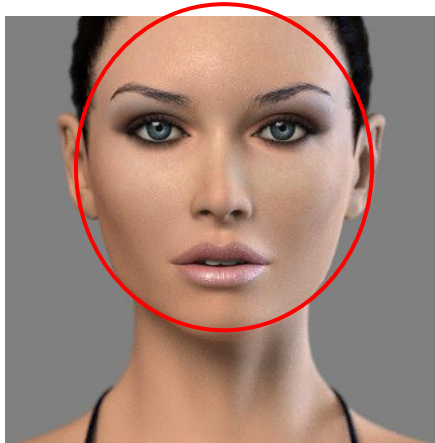
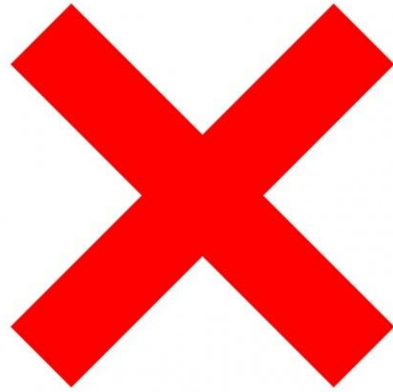


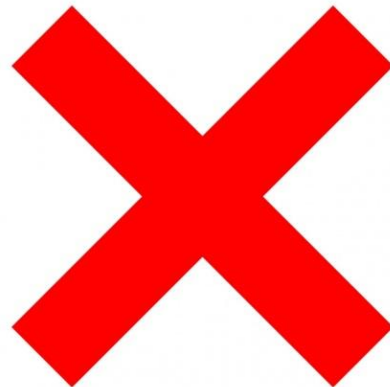
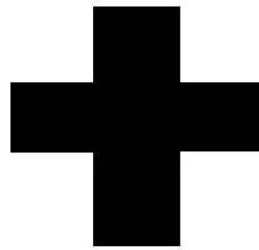
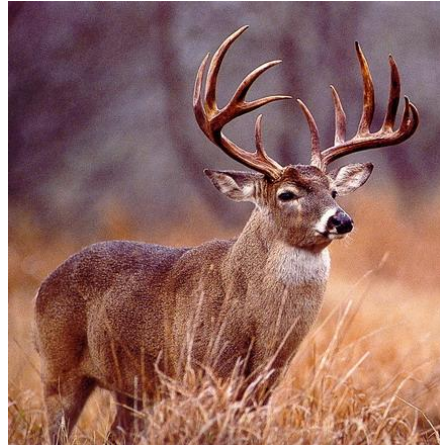


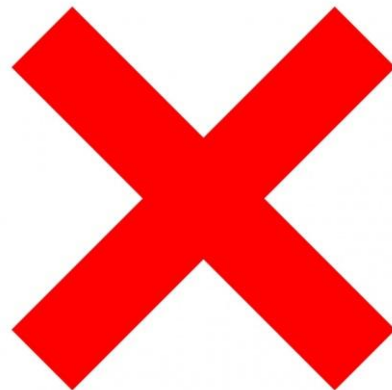
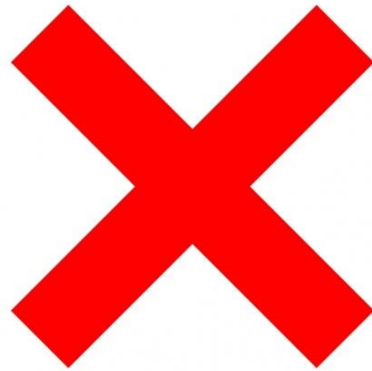


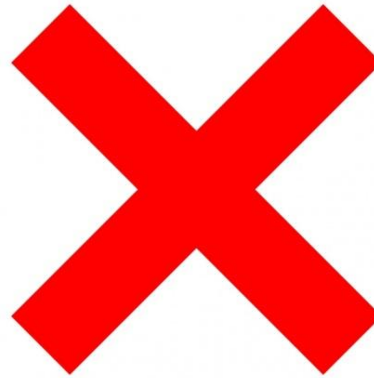


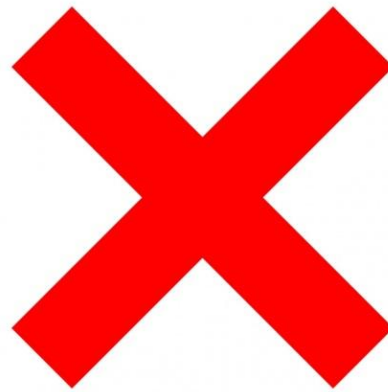


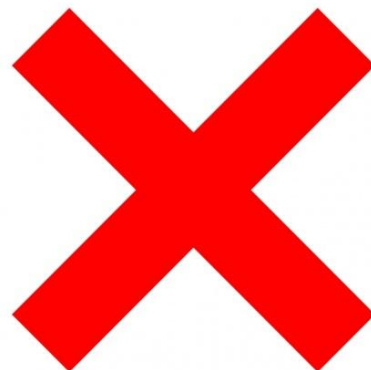
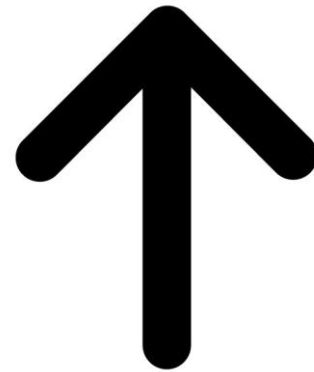
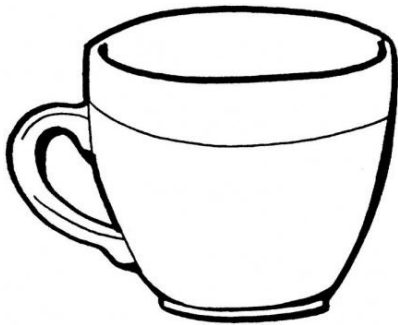
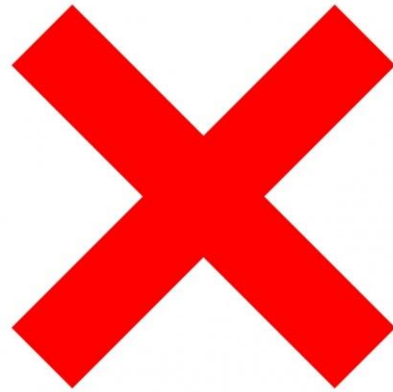
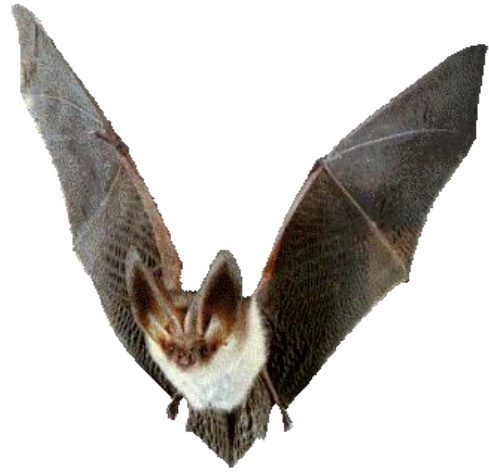


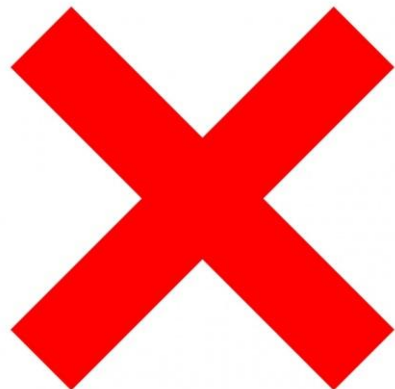
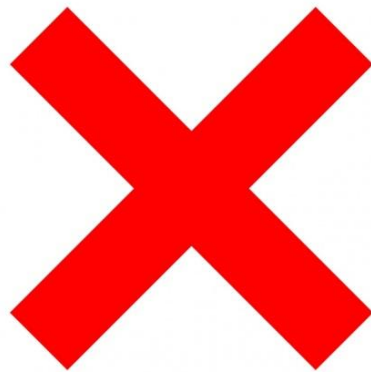


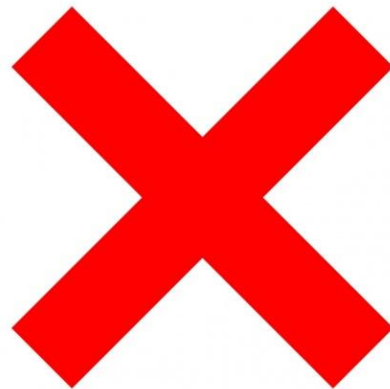
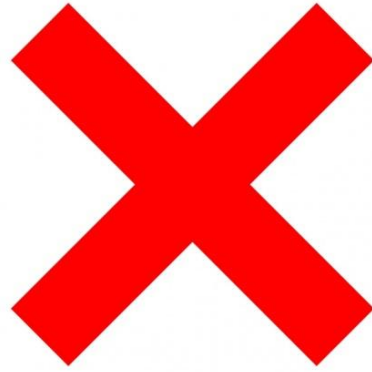
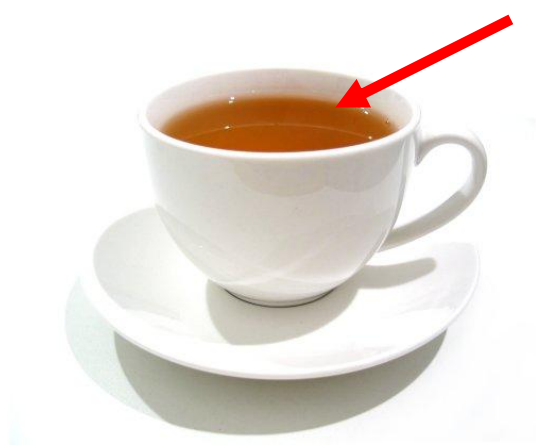
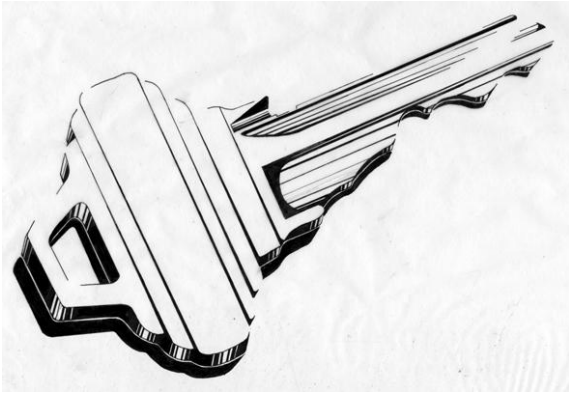


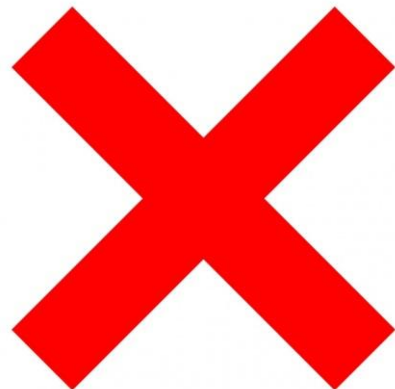
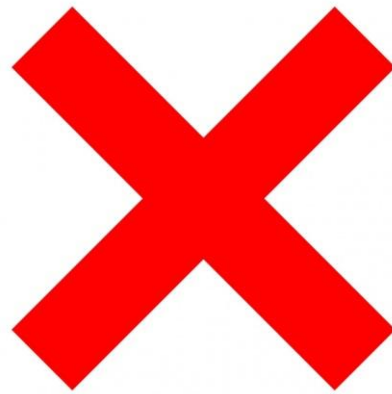


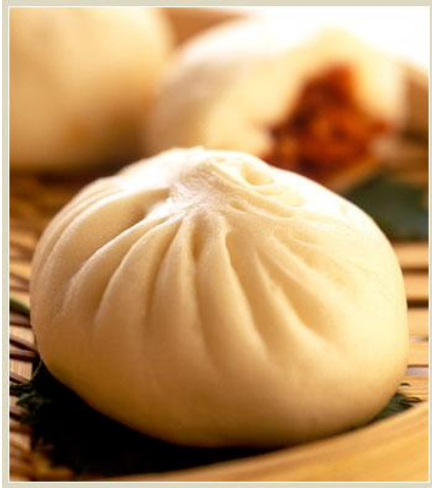




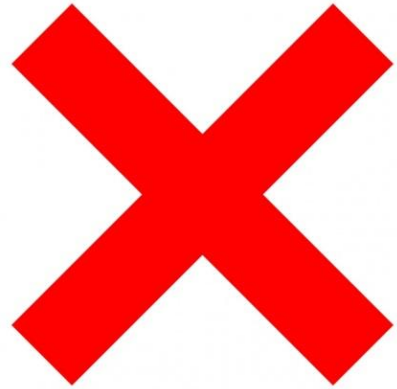




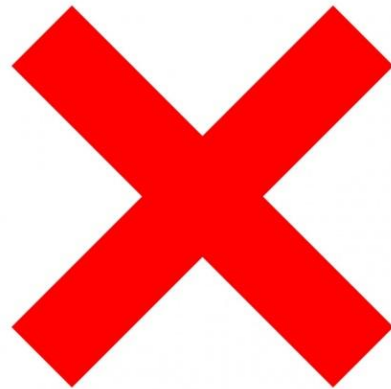




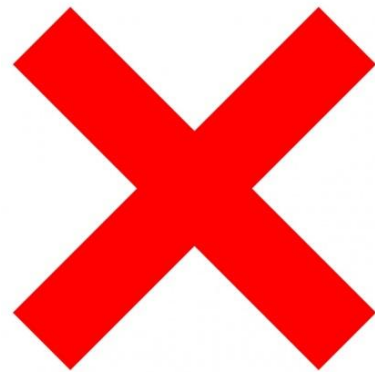
1



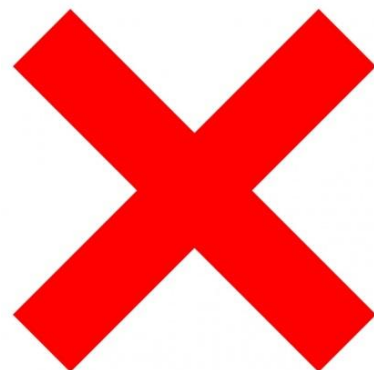
3

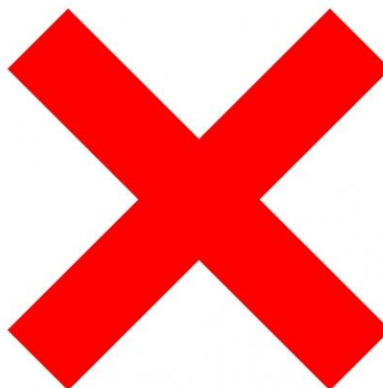
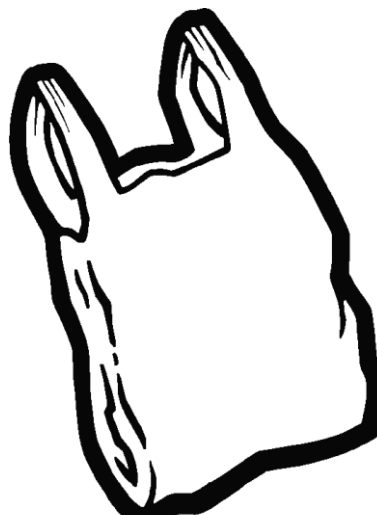
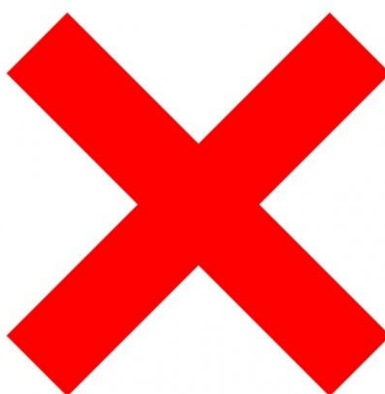


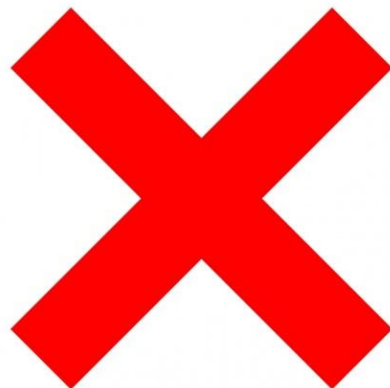
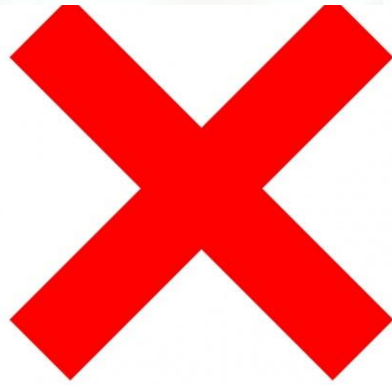
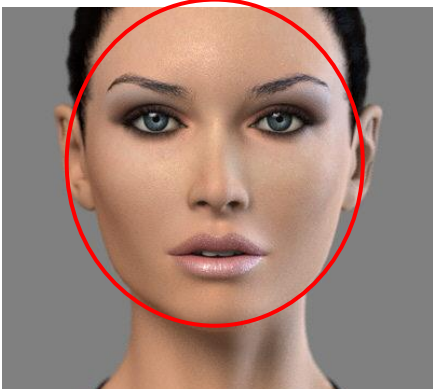
Appendix 1.4 – Pictures used in the picture choosing task (US set)

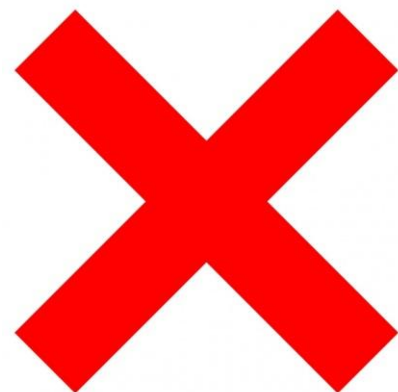


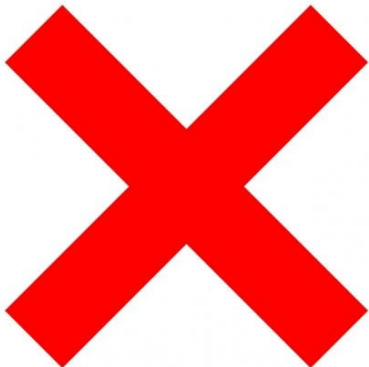
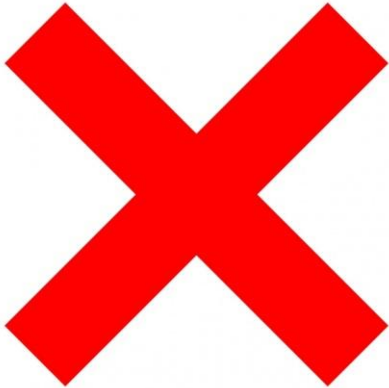
Do

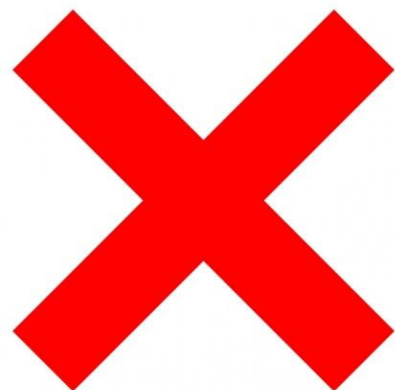
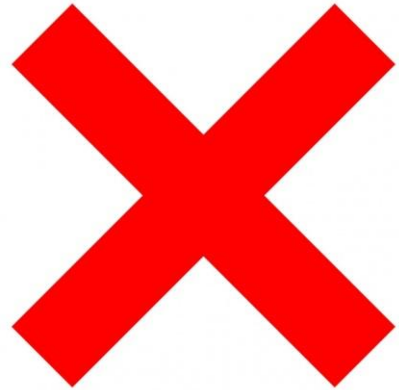


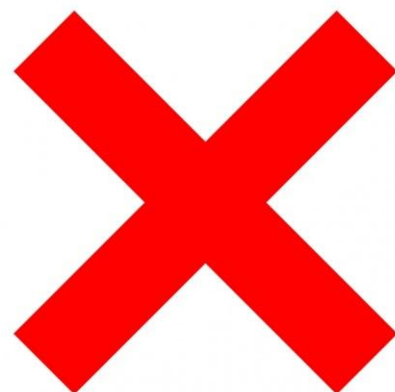
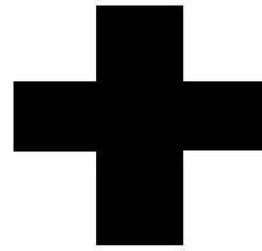


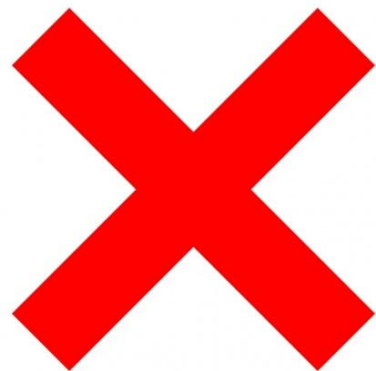
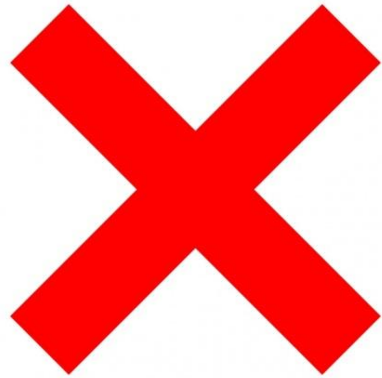


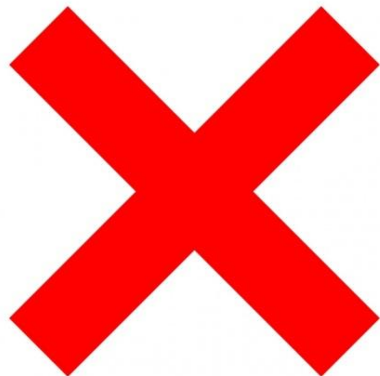
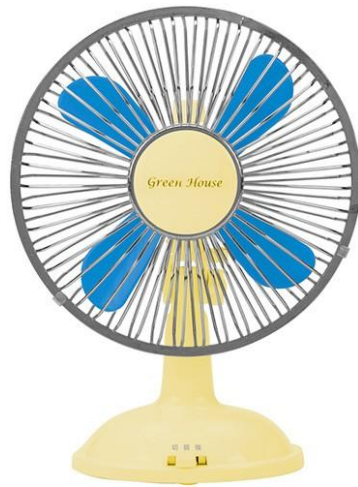


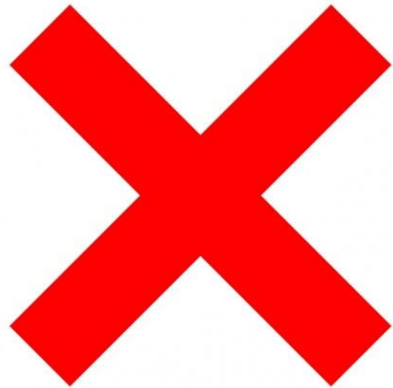
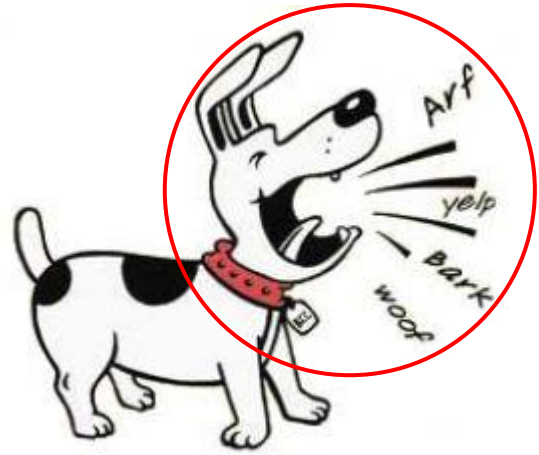


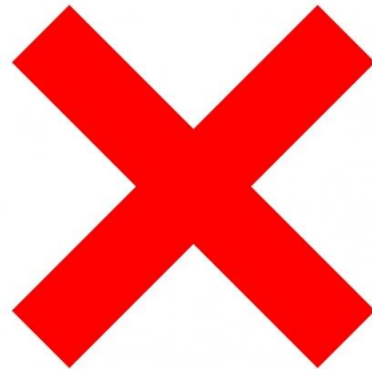
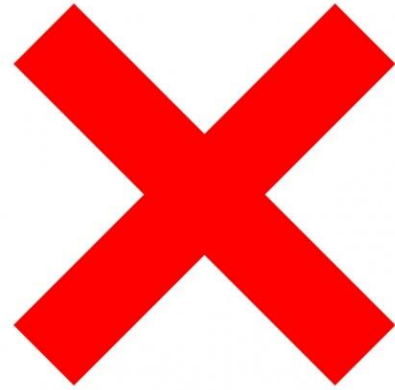


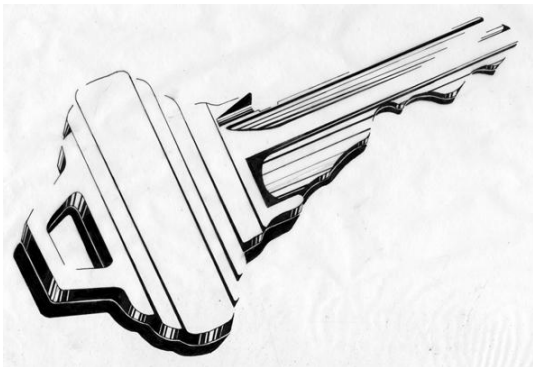
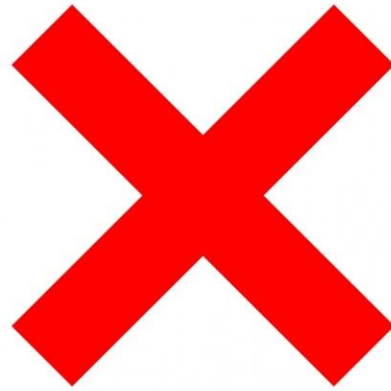




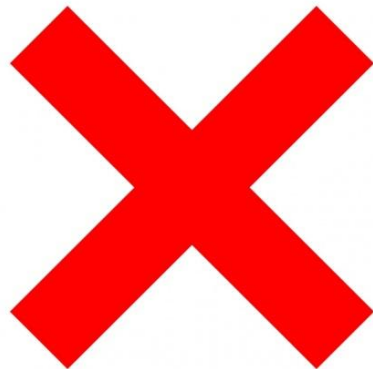


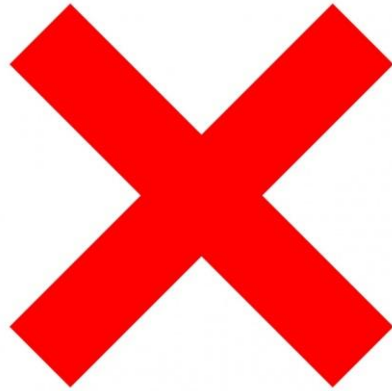




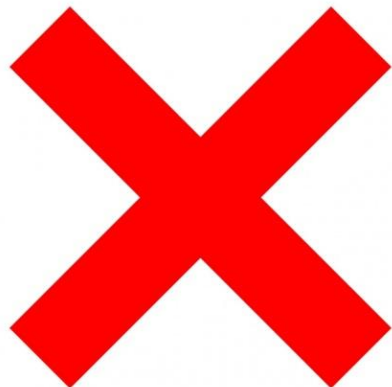


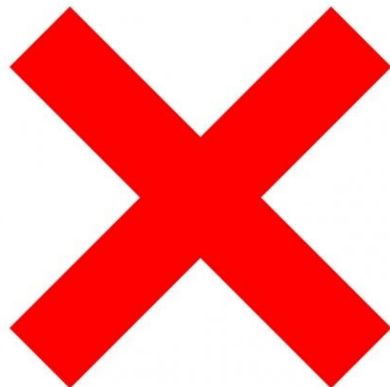
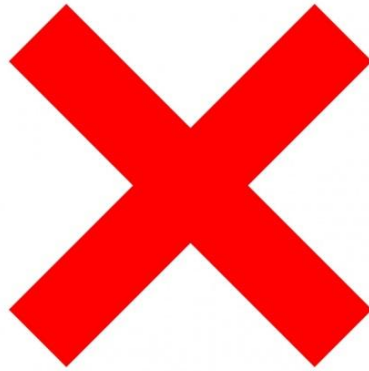
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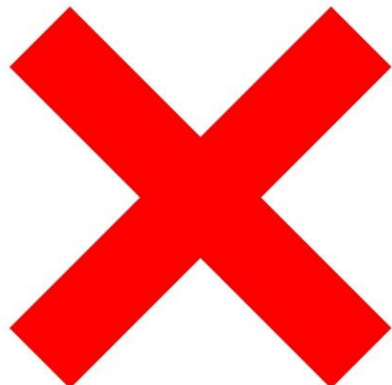
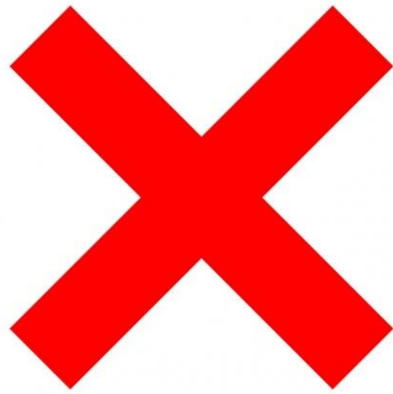


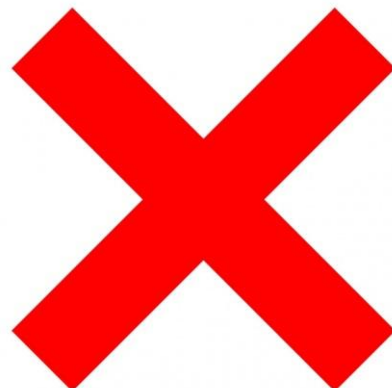
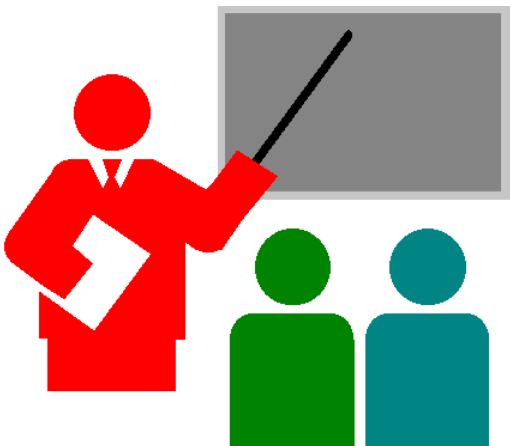
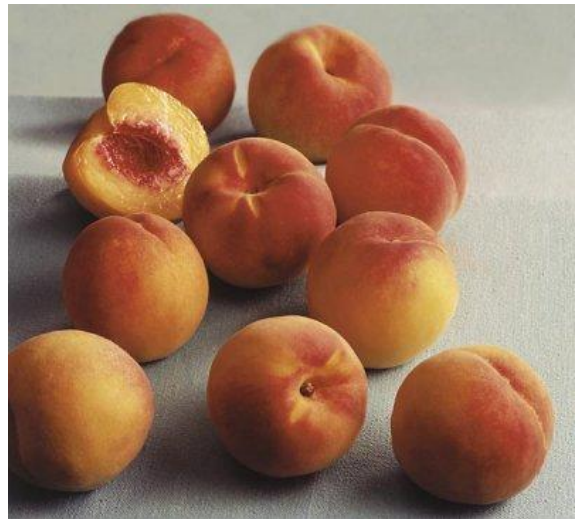


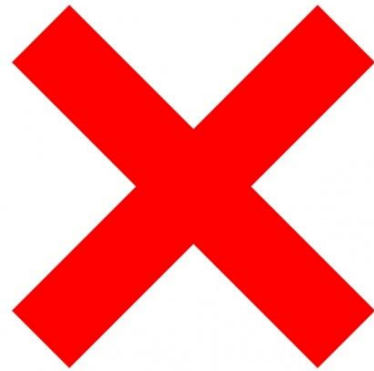
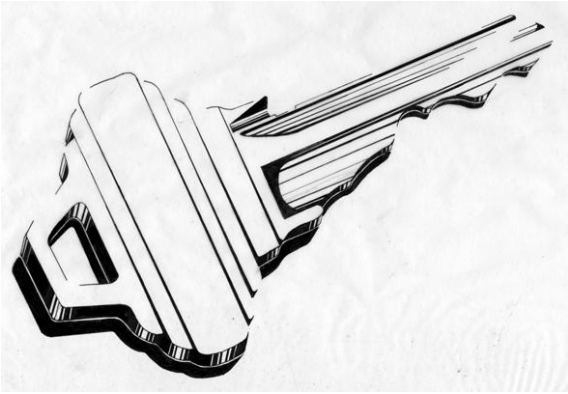
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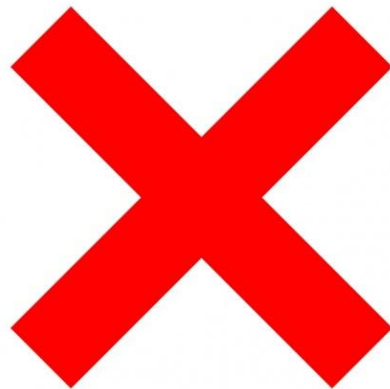


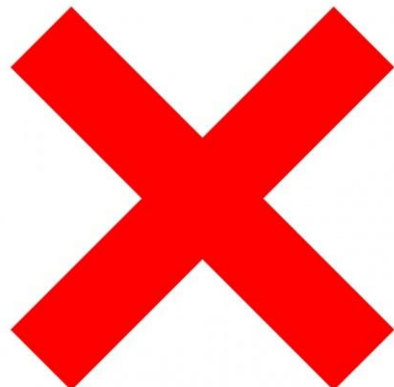
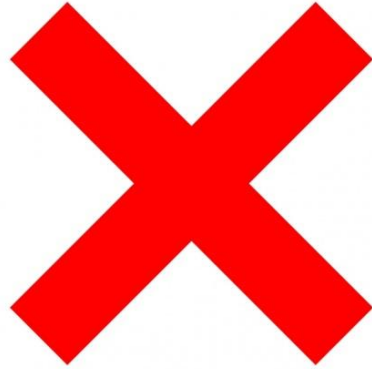
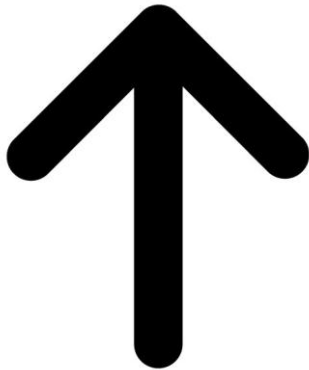
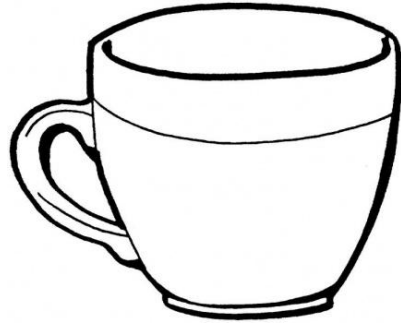


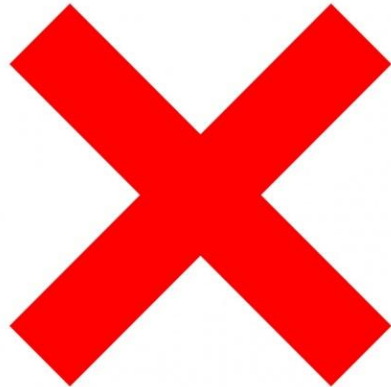
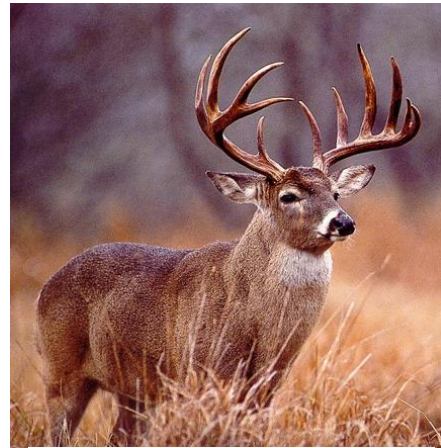
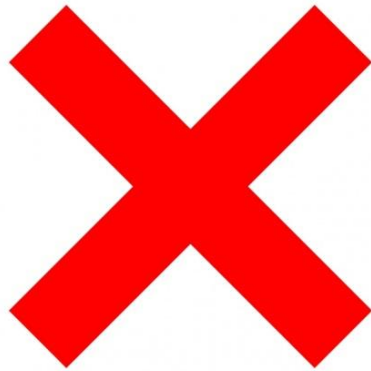




3







Appendix 2

Original paragraph for the verbal guise task prior to editing:

The story of Pat.

In an old farm very far away lives a fat furry panda called Pat. Pat likes eating very much. He likes all sorts of food. Vegetables are good for him. He loves fruits too, pineapple, pumpkin, pear and more, but berries are his favourite fruit.

One day he goes to the peak to look for some berries and peaches. He sees a lot of new faces that day, among them is a pair of funny fish near a river, Pat asked: "Where can I find some sweet berries and tasty peaches?" The fish replied: "You can ask the frog next to the forest by the river." "Thank you very much!" said Pat as they part.

Pat keeps going. He sees the forest and some footprints. He goes on to ask the frog about the fruits. The frog said: "You can take some of mine; they are really sweet and nice. Take some tomatoes and potatoes too." "Thank you very much Mr. Frog, you are so kind!" Pat replied joyfully. Pat goes back home happily with yummy food to eat and some new friends to show his cat.

The passage about a panda called Pat is designed to be interesting even for youngsters, who are one of the target groups of the study. The text has a very high readability rating of 96.9 out of 100 in the Flesch Reading Ease scale (Flesch 1948; DuBay 2004).^{61,62} The text is made up of short sentences of 8 words long on average. It contains 70% monosyllabic words and most of the words in the passage are high frequency words such as "fat", "very", "pear", "take", "cat", etc. These features are used to reduce the processing load imposed on the listeners.

⁶¹ Flesch Reading Ease measures the readability of a text by measuring the sentence length, the number of syllables of words, the length of the passage etc. The higher the figure a passage yields, the more readable it is.

⁶² Flesch-Kincaid Grade Level is also used which is a scale that roughly correlates to the grade-level a person has to have completed in order to be able to understand the given text. The passage yields a Flesch-Kincaid Grade Level of 1.6, however this measure can only serve as a rough guide as there are accuracy issues involved (for details please refer to DuBay 2004).

Appendix 3 - Verbal guise task (for secondary school students)

Speaker:

Not friendly	1	2	3	4	5	Friendly
Not sociable	1	2	3	4	5	Sociable
Not intelligent	1	2	3	4	5	Intelligent
Not humble	1	2	3	4	5	Humble
Not highly educated	1	2	3	4	5	Highly educated
Not warm	1	2	3	4	5	Warm
Not wealthy	1	2	3	4	5	Wealthy
Not pleasant	1	2	3	4	5	Pleasant
Not successful	1	2	3	4	5	Successful
Not helpful	1	2	3	4	5	Helpful
Not sincere	1	2	3	4	5	Sincere
Not elegant	1	2	3	4	5	Elegant
Not kind	1	2	3	4	5	Kind
Not competent	1	2	3	4	5	Competent
Not honest	1	2	3	4	5	Honest
Not interesting	1	2	3	4	5	Interesting
Not hard-working	1	2	3	4	5	Hard-working
Not considerate	1	2	3	4	5	Considerate
Not reliable	1	2	3	4	5	Reliable
Not modern	1	2	3	4	5	Modern
Not generous	1	2	3	4	5	Generous
Not polite	1	2	3	4	5	Polite

Where is this speaker from?

Does this person sound like someone who would get the job of a radio/TV announcer?

Not at all 1 2 3 4 5 very much

Do you think this person sounds like a Hong Kong speaker of English?

Not at all 1 2 3 4 5 very much

Would you like to sound like this person?

Not at all 1 2 3 4 5 very much

Appendix 4 - Verbal guise task (for kindergarten students)

Speaker:

Not friendly	1	2	3	4	5	Friendly
Not warm	1	2	3	4	5	Warm
Not pleasant	1	2	3	4	5	Pleasant
Not helpful	1	2	3	4	5	Helpful
Not sincere	1	2	3	4	5	Sincere
Not kind	1	2	3	4	5	Kind
Not competent	1	2	3	4	5	Competent
Not interesting	1	2	3	4	5	Interesting
Not hard-working	1	2	3	4	5	Hard-working
Not generous	1	2	3	4	5	Generous
Not polite	1	2	3	4	5	Polite

Where is this speaker from?

Does this person sound like someone who would get the job of a radio/TV announcer?

Not at all 1 2 3 4 5 very much

Do you think this person sounds like a Hong Kong speaker of English?

Not at all 1 2 3 4 5 very much

Would you like to sound like this person?

Not at all 1 2 3 4 5 very much

Appendix 5 - Questionnaires to parents/ teachers

Please look at the statements below (1 – 30) and circle where appropriate (1 = strong disagreement, while 5 = strong agreement). Also please answer the questions when necessary.

1. English spoken by Filipino housekeepers is different from that of Hong Kong people.

Strongly disagree 1 2 3 4 5 Strongly agree

2. I am aware of the Filipino accented English.

Strongly disagree 1 2 3 4 5 Strongly agree

a. Can you name some features of it?

3. English spoken by Filipino housekeepers is different from English spoken by Americans.

Strongly disagree 1 2 3 4 5 Strongly agree

4. English spoken by Filipino housekeepers is different from English spoken by British.

Strongly disagree 1 2 3 4 5 Strongly agree

5. English spoken by Filipino housekeepers is different from English spoken by Australians.

Strongly disagree 1 2 3 4 5 Strongly agree

6. A person pronounces an English word correctly when s/he sounds like an American.

Strongly disagree 1 2 3 4 5 Strongly agree

7. A person pronounces an English word correctly when s/he sounds like a British.

Strongly disagree 1 2 3 4 5 Strongly agree

8. A person pronounces an English word correctly when s/he sounds like an Australian.

Strongly disagree 1 2 3 4 5 Strongly agree

9. A person pronounces an English word correctly when s/he sounds like a Hong Konger.

Strongly disagree 1 2 3 4 5 Strongly agree

10. A person pronounces an English word correctly when s/he sounds like a Filipino.

Strongly disagree 1 2 3 4 5 Strongly agree

11. The Filipino way of pronouncing English words is a correct way of pronouncing them.

Strongly disagree 1 2 3 4 5 Strongly agree

12. Pronouncing English words in a Filipino way is frowned upon.

Strongly disagree 1 2 3 4 5 Strongly agree

13. Pronouncing English words in a Filipino way is praised.

Strongly disagree 1 2 3 4 5 Strongly agree

14. Pronouncing English words in a Filipino way is a subject of ridicule.

Strongly disagree 1 2 3 4 5 Strongly agree

15. Pronouncing English words in a Filipino way is a subject for admiration.

Strongly disagree 1 2 3 4 5 Strongly agree

16. I find it easy to understand Filipino accented English.

Strongly disagree 1 2 3 4 5 Strongly agree

17. I find it hard to understand Filipino accented English.

Strongly disagree 1 2 3 4 5 Strongly agree

18. My child/ student find it easy to understand Filipino accented English.

Strongly disagree 1 2 3 4 5 Strongly agree

19. My child/ student find it hard to understand Filipino accented English.

Strongly disagree 1 2 3 4 5 Strongly agree

20. I have corrected the Filipino housekeeper's speech when I heard her pronouncing words differently from how I read them.

Strongly disagree 1 2 3 4 5 Strongly agree

21. I have corrected my child's/ student's speech when I heard them pronouncing a word in a Filipino way.

Strongly disagree 1 2 3 4 5 Strongly agree

22. I will correct my child's/ student's pronunciation when s/he pronounces a word in a Filipino way.

Strongly disagree 1 2 3 4 5 Strongly agree

23. The presence of a Filipino in the household is good for my child's/ student's English fluency.

Strongly disagree 1 2 3 4 5 Strongly agree

24. The presence of a Filipino in the household is bad for my child's/ student's English fluency.

Strongly disagree 1 2 3 4 5 Strongly agree

25. The presence of a Filipino in the household is good for my child's/ student's English pronunciation.

Strongly disagree 1 2 3 4 5 Strongly agree

26. The presence of a Filipino in the household is bad for my child's/ student's English pronunciation.

Strongly disagree 1 2 3 4 5 Strongly agree

27. I want my child/ students to have a Filipino accent when speaking English.

Strongly disagree 1 2 3 4 5 Strongly agree

a. If not which accent do you prefer? Please give your reason(s).

28. I don't want my child/ students to have a Filipino accented when speaking English.

Strongly disagree 1 2 3 4 5 Strongly agree

29. My child should speak like Filipinos

Strongly disagree 1 2 3 4 5 Strongly agree

30. My child shouldn't speak like Filipinos

Strongly disagree 1 2 3 4 5 Strongly agree

Appendix 6 - Demographics questionnaire

1. Age of your child:

2. Year when s/he started learning English:

3. Medium of instruction in kindergarten:

4. Language(s) the child speaks (Please indicate the level and which is his/her mother tongue):

5. The language your child speaks with you in:

6. Whether you have employed a *Filipino* maid (if yes, since when. Also whether s/he is the primary care-giver of the child):

7. Whether your child has attended English tutorial classes (if yes, since when):

8. Contact information (for sending feedback and further contact if necessary):

Appendix 7 – Interaction pattern questionnaire

1a. How much time (hours) does the foreign domestic helper spend interacting with your child in weekdays (Monday-Friday)?

1b. What are the activities that they do together and how much time do they roughly spend on each of them? E.g (but not limited to) Speaking, watching English TV, playing games, reading in English, teaching English, or others (please name them.)

2a. How much time (hours) does the foreign domestic helper spend interacting with your child in weekends (Saturday-Sunday)?

2b. What are the activities that they do together and how much time do they roughly spend on each of them? E.g Speaking, watching English TV, playing games, reading in English, teaching English, or others (please name them.)

3a. How much time (hours) do you spend interacting with your child in weekdays (Mon-Fri)?

3b. What are the activities that you do together and how much time do you roughly spend on each of them? E.g Speaking, watching TV, playing games, reading, teaching, or others (please name them.) (Please also specify the language in which these activities are carried out)

4a. How much time (hours) do you spend interacting with your child in weekends (Sat-Sun)?

4b. What are the activities that you do together and how much time do you roughly spend on each of them? E.g Speaking, watching TV, playing games, reading, teaching, or others (please name them.) (Please also specify the language in which these activities are carried out)

Appendix 8 - Topic guides for the focus group

Proposed medium of the focus group: Cantonese

Composition of groups: group with maids, group without maids, and mix

To see if there's any group identity evolved, co-constructed attitude, etc

Core issues to be addressed by the Focus group

Opening Q; Introductory Q; Key Q; Transition Q; Ending Q

Child's attitude

Child's perception of parent/ teacher/ peer's attitude

Child's identity

Relationship with peers, parents, teachers, and domestic helpers

Child's view on foreign domestic helpers

Do you like spending time with your domestic helper?

What do you normally do together?

Do you think she has an influence on you?

Accent awareness

Do you think Filipino speaks differently from you? If yes, how different?

Since when do you realize such difference?

Do you think (Filipino accent) is the way that others speak, e.g. teachers/
parents / peers

Personal experience with Filipino pronunciation

e.g. Have you ever spoken a word like "X"? Do you think it's a proper way of
doing it? What do your teacher/ parents/ friends think?

e.g. Have you experienced ridicule when you did so?

What if your friends speak like that? Will you correct him? (will they be
ridiculed?).

Methods:

Discussions

Impersonation

e.g. What would your parents/teachers do and say when you say “Pilipino” rather than “Filipino”

Play accented speech and ask them to comment

e.g. observe laughter, ask questions such as “do you think that sounds familiar/strange?”, “do you like to sound like that”, “do you think that sound like your Filipino maid”?

Other prompts and questions raised in the pre-collection brainstorm:

Do you think you can understand FDH’s Eng?

Do you think you can learn English from your FDH’s speech?

How does your FDH treat you? Will your FDH get mad at you?

Do you prefer local domestic helper / FDH?

Can you communicate with an FDH (without problems?)

Have u been taught (English) by your FDH?

Do you think the presence of an FDH increased your input? Does it in any way increase your willingness to speak in English?

Do you think the “correctness issue” is the driving force for you to adopt or not adopt the FDH accent?

Is peer pressure an issue?

Appendix 9 - Project description



NEWCASTLE UNIVERSITY

Project Description/ participant's copy

Project title: Child second language acquisition in context

The employment of foreign domestic helpers is common in Hong Kong. Foreign domestic helpers account for approximately three percent of Hong Kong's population. They are often responsible for taking care of the children while employers are at work during the day. However, the potential influence these helpers have on the children's language acquisition has gone largely un-researched. The project described below aims to fill the gap and add to our understanding about child second language acquisition.

This project investigates the way in which children learn more than one language in the context of Hong Kong. Specifically, the study looks at what potential influence Filipino foreign domestic helpers might have on the learning of English by children within the household that employs them.

Participants with Filipino foreign domestic helpers in their household and those without will both be included in the study so a comparison can be made.

The project involves the children in various speaking and listening tasks. For example, they will be asked to differentiate sounds-triad that are played to them. Participants will be recorded while they are completing the tasks. This provides data for later analysis.

Selected participants will be invited to engage further by being involved in group exercises and in longer-term observation of the languages used in their household which are also recorded.

The study will be risk-free, it does not involve any intrusive experiment as it simply involves speaking and listening exercises. Participants' privacy and confidentiality (i.e. that of the children, their parents and the housekeepers) will be treated with the utmost respect. Any data collected will remain anonymous.

As mentioned at the beginning, studies of similar nature are rare; this study is in fact among the very first of its kind. Therefore, your participation is invaluable as it will shed light on an interesting area of research in the field of child second language acquisition. In addition, taking part in the study offers the child a good opportunity to practice dealing with unfamiliar situations and interacting with new acquaintance. These transferrable skills are going to be useful for various occasions including interviews.

Your participation in the study is highly appreciated and it will help the researcher to achieve the aim of the study. As a gesture of appreciation, participants will be given a *certificate of participation* for taking part in the study. Research findings will be made available in due course.

Researcher: Alex Ho-Cheong LEUNG

Contact: h.c.leung@ncl.ac.uk ; + 852 xxxxxxxx, + 44 (0) xxxxxxxxxx

Supervisors: Prof. Karen Corrigan, Dr. Martha Young-Scholten

Research time table:

3-4 sessions

Session 1/ 2: Listening tasks

Session 3/4: Interview and discussion

Appendix 10 - Consent form



NEWCASTLE UNIVERSITY

FORM OF CONSENT TO TAKE PART IN A RESEARCH PROJECT

CONFIDENTIAL

Project title: Child second language acquisition in context

- I agree to participate in the study⁶³*
- I do not agree to participate in the study*

Thank you for agreeing to take part in this research.

The researcher will provide a written document for you to read (*or refer to statements above*) before you agree to take part. If you have any questions arising from this, ask the researcher before you decide whether to take part. You will be given a copy of this consent form to keep⁶⁴.

I confirm that I have read the statement provided for the above research project and have had the opportunity to ask questions⁶⁵. I agree to be recorded for the purpose of the study.

I understand that my participation is voluntary and that I am free to withdraw from the project at any time, without needing to give a reason.

- My family has employed a Filipino domestic helper*
- My family has not employed a Filipino domestic helper*

⁶³ Please put a tick ✓ where appropriate.

⁶⁴ A copy will be made in due course.

⁶⁵ Researcher's contact info: Alex LEUNG, H.C.LEUNG@NCL.AC.UK, (852) xxxx xxxx

Name of participant⁶⁶ Date Signature

Name of person giving consent if Date Signature
Different (Parent/ Guardian)

I, the undersigned researcher, certify that the details of this project / investigation have been explained and described in writing to the individual named above and have been understood by him / her. I also take the full responsibility to keep data confidential and the participant's identity anonymous. The participant's privacy and safety is my top responsibility in this project.

Ho- Cheong LEUNG _____
Researcher Date Signature

⁶⁶⁶⁶ If the participant is a child, one of his/her parents is to sign this form on his/her behalf.

Appendix 11 - Assent form



NEWCASTLE UNIVERSITY

FORM OF ASSENT TO TAKE PART IN A RESEARCH PROJECT

CONFIDENTIAL

Project title: Child second language acquisition in context

Thank you for agreeing to take part in this research.

The researcher will explain the project verbally to you before you agree to take part. If you have any questions arising from this, ask the researcher before you decide whether to take part. You will be given a copy of this assent form to keep.

I confirm that I have listened to the description of the project and have had the opportunity to ask questions. I agree to be recorded for the purpose of the study.

I understand that my participation is voluntary and that I am free to withdraw from the project at any time, without needing to give a reason.

Name of participant

Date

Signature

I, the undersigned researcher, certify that the details of this project / investigation have been explained and described orally to the individual named above and have been understood by him / her. I also take the full responsibility to keep data confidential and the participant's identity anonymous. The participant's privacy and safety is my top responsibility in this project

Ho- Cheong LEUNG

Researcher

Date

Signature

Appendix 12 - Debriefing document



NEWCASTLE UNIVERSITY

Debriefing

Project title: Child second language acquisition in context

The employment of foreign domestic helpers is common in Hong Kong. Foreign domestic helpers account for approximately three percent of Hong Kong's population. They are often responsible for taking care of the children while employers are at work during the day. However, the potential influence these helpers have on the children's language acquisition has gone largely un-researched. The project described below aims to fill the gap and add to our understanding about child second language acquisition.

This project investigates the way in which children learn more than one language in the context of Hong Kong. Specifically, the study looks at what potential influence Filipino foreign domestic helpers might have on the learning of English by children within the household that employs them.

In the project children had taken part in various speaking and listening tasks. They had tried naming pictures and played a game of matching as part of the speaking task, while in the listening part of the study, they had engaged in a picture choosing task where they select pictures after listening to words spoken in different accents of English. Also, they had tried distinguishing different sound triads where they had to point the odd one out. Furthermore, they had commented on an English paragraph read by four different speakers. Some of the participants had taken part in a discussion where they were guided to express their feelings toward the employment of foreign domestic helpers and their use of English.

May I take this opportunity to stress once again that participants' privacy and confidentiality (i.e. that of the children, their parents and the housekeepers) will be treated with the utmost respect. Any data collected will remain anonymous.

As mentioned at the beginning, studies of similar nature are rare; this study is in fact among the very first of its kind. Therefore, your participation has been invaluable as it will shed light on an interesting area of research in the field of child second language acquisition. Research findings will be made available in due course.

Here are some of the preliminary observations:

- Accents of children whose family has employed Filipino domestic helpers (F-FDHs) are not directly affected. i.e. most children in the experimental setting have not adopted the Filipino accent while speaking English. Although, it is not unusual

hearing “Filipino-accented” speech from the children when they are talking to F-FDHs.

- These children are better at perceiving English words spoken in such an accent.
- Children with F-FDHs are more confident in speaking English to a certain extent as they think the presence of F-FDH in the household increased their chance of using English.
- Children vary highly in their attitudes toward different types of English accent (HK, US, UK, Filipino). However, they do not seem to have an accent that they particularly hate or like.
- Parents and teacher seem to have a key role to play in whether the children accept Filipino-accented English or not.

Please note, however, that these are very coarse generalisation made without scrutinising the data. For a more detailed account pertaining to the pilot of the current study, please refer to:

Leung (to appear in 2011, May). I know [pɪlɪpɪno] but I say [fɪlɪpɪno]: an investigation into Filipino foreign domestic helpers’ influence on Hong Kong Chinese’s L2 English phonology acquisition. *Poznań Studies in Contemporary Linguistics* 47(1).

Thank you very much once again!

Details of the research team:

Researcher : Alex Ho-Cheong LEUNG

Contact : h.c.leung@ncl.ac.uk ; + 852 xxxxxxxx, + 44 (0) xxxxxxxxxx

Supervisors : Prof. Karen Corrigan, Dr. Martha Young-Scholten