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**Redefining 'Chinese' L1 in SLP: Considerations for the assessment of Chinese
bilingual / bidialectal language skills**

Abstract

Language assessment of bilingual/bidialectal children can be complex. This is particularly true for speakers from China, who are likely to be bilingual and bidialectal at the same time. There has been, however, a lack of understanding of the diversity of Chinese languages as well as data on bidialectal children's L1 syntactic development and the development of L1 bidialectal children's L2 acquisition. This paper provides information on the complexity of the language system for people from China. It will present illustrative examples of the expressive language outputs of bilingual and bidialectal children from the perspective of bilingual, bidialectal linguists and speech-language pathologists. Then it will outline why appropriate assessment tools and practices for identification of language impairment in bilingual Chinese children need to be developed. Considerations include that Chinese bilingual children may differ in L2 performance because of lack of exposure in the target language or because of their varied L1 dialectal backgrounds, but not necessarily because of language impairment. When evaluating morphosyntactic performance of bilingual children, a series of reliable threshold indicators for possible language impairment is urgently needed for SLPs to facilitate accurate diagnosis of language impairment.

Though a controversial topic, language impairment can be generally defined as the linguistic difficulties in expressive and/or receptive language skills relative to age-matched peers who have comparable language exposure (Bedore & Peña, 2008). However, children learning a second language are at particular risk of misdiagnosis of language impairment. For speech-language pathologists (SLPs), un-biased language assessment of bilingual children can be complex (Gillam, Peña, Bedore, Bohman, & Mendez-Perez, 2013). It becomes even more complicated when involving bidialectal L1 speakers. While bilingualism means the command of two distinct languages that are different in phonology, lexicon and syntax, bidialectism refers to the command of two similar linguistic varieties under the ‘same’ language (Bhatia & Ritchie, 2006).

To distinguish true language impairment from normal language difference has not been easy in practice due to inappropriate assessments and a lack of normative data (Kohnert, 2010; Teoh, Brebner, & McCormack, 2012). In fact, there are no unified understandings and/or standards for identification of bilinguals’ language impairment (Broomfield & Dodd, 2004), except a general agreement that impairment will be evident in all languages (Kohnert, 2010). It is important to know, however, that if impairment is present then there is a chance it will be present in both languages, which is a key determinant in differentiating cross-linguistic differences from disorder while discussing language impairment in bilinguals.

English and other Romance languages, due to their richness in morphological inflections and/or derivations (Tsarfaty, Seddah, Kübler, & Nivre, 2013), have provided SLPs with great opportunities to study morphological markers that may signal language impairment across languages. In turn, most cross-linguistic studies of the

morphosyntactic aspects of language impairment focus on morphological problems such as inflections and/or tense marking rather than syntactic issues (Paradis, Crago, & Genesee, 2005).

Furthermore, ‘Chinese’ has, unfortunately, been inaccurately defined in speech-language pathology studies. This, combined with the lack of data on the (sequential) development of Chinese bidialectal children’s L1 development and subsequent L2 acquisition, means that the information emerging on clinical markers of language impairment for Chinese bilingual children may not be particularly informative for clinical practice.

The primary purpose of this paper is, thus, to inform SLP practice by describing and defining the languages and dialects spoken by Chinese people. It will outline important considerations for appropriate assessment tools and practices for identification of language impairment in bilingual children through providing illustrative examples of the expressive language outputs of bilingual and bidialectal children from the perspectives of a bilingual, bidialectal linguist and SLPs.

Redefining Chinese as L1

The typological study of languages, or linguistic typology, is the study of the classifications of languages through their structural and functional features (Song, 2011). The cross-linguistic features (e.g. word order, morphosyntactic alignment, phonological systems etc.) are compared according to their similarities and differences, so that a framework for the description and classification of individual languages is provided (Bisang, 2001). While it seems to be commonly accepted that Mandarin and Cantonese

are two distinct Chinese languages they, and other dialects of Chinese, are treated as dialects in modern linguistic research despite their typological differences. By definition, a dialect is ‘a regional or social variety of a language characterized by its own phonological, syntactic, and lexical properties.’ and therefore can be typologically quite distinct (O’Grady, Archibald, Aronoff, & Rees-Miller, 2001). A language is typically the standard variety, i.e. an official dialect, that is selected through ‘arbitrary standards’ and promoted by the authorities (Fasold, 2006). There are no absolute answers to the question of what constitutes a language and what constitutes a dialect. The fact is the differences among Chinese dialects can be quite considerable. This paper follows the modern Chinese linguistic convention (e.g. Han, Arppe, & Newman, 2013) and refers to Mandarin, Cantonese and other Chinese varieties as ‘dialects’.

The rest of this section is dedicated to describing and distinguishing the major dialects and their linguistic features in China. These include Mandarin (over one billion speakers worldwide), Pekingese (over 20 million native speakers), Shanghainese (over 20 million native speakers) and Cantonese (around 60 million speakers worldwide).

Overview

To most historical linguists, Chinese is more like a language family that consists of a large number of dialects, most of which have co-existed since before the Qin dynasty (221-206 B.C.). The Chinese dialectal complexity is in many ways analogous to the Romance language family. For example, there is as much difference between Pekingese and the Chaozhou dialect as there is between Italian and French; or the Hainan Min dialect is as different from the Xiang dialect as Spanish is from Romanian (Norman, 1988,

p. 187). Though politically or socially speaking there are differences between the standard and non-standard among Chinese dialects, linguistically, and clinically, they are equally important.

Mandarin, also known as Putonghua in mainland China and Guoyu in Taiwan, is the standard variety of Chinese. It is the only standard variety used in China (including Taiwan) and one of the many used in Hong Kong, Macau and Singapore. The phonology of Mandarin is mainly based on the Beijing dialect-Pekingese, but the vocabulary is drawn from dialects (which are highly intelligible to each other) spoken in northern, central and southwestern China. Very little is drawn from those dialects spoken in the South and Southeast, which are mutually unintelligible to each other and to Mandarin (refer to figure 1 for a map of dialectal distribution of Mandarin and other dialects).

[INSERT FIGURE 1 HERE]

Mandarin grammar is linguistically prescriptive and is standardized to the ‘Modern Chinese’ literary works emerging at the turn of the twentieth century. This means that there are prescribed ‘correct’ ways to use Mandarin such as rules for spelling, pronunciation, syntax and semantics (sometimes even pragmatics and functions) where variations are considered to be incorrect, improper, illogical, or even of low aesthetic value (Edwards, 2009, p. 259). Mandarin (as well as other Chinese dialects) is a tonal language with practically five tones: level, rise, fall-rise, fall and neutral. Tones distinguish meanings in Chinese. For pedagogical purposes, Hanyu Pinyin, a Romanization system with tone marks, is used to represent the pronunciation and tones of

each Chinese character. A conservative estimate of Mandarin speakers worldwide is over one billion. However, it should be noted that ‘Mandarin speakers’ refer to those who have native or near-native competence in the language and that most Mandarin speakers in China speak at least one more Chinese dialect. Unlike English, which is a subject-prominent language, typologically, Mandarin belongs to the ‘topic-comment’ category, while preserving a basic SVO word order. SVO means the verbal elements in a sentence are arranged through the Subject-Verb-Object order, such as in (1) below:

(1) 我 正在 学 言语病理学。

I PRES study speech pathology

‘I’m studying speech pathology.’

A topic comment structure, on the contrary, places the most important information at the beginning of a sentence. The preposed element can come before the subjects, as in (2), or after it as in (3):

(2) 言语病理学 我 正在 学。

speech pathology I PRES study

(3) 我 言语病理学 正在 学。

I speech pathology PRES study

Refer to Table I below for more examples of dialectal differences between the topic-comment structures.

[INSERT TABLE I HERE]

Pekingese, the Beijing dialect, is the dialect used for everyday communicative purposes spoken in the urban area of Beijing, the capital city of China. As the phonological basis of Mandarin, Pekingese is highly similar to the standard variety. However, one (even a foreign ear) can still distinguish the two without any difficulty. It is estimated that there are no more than 20 million native speakers of Pekingese.

Shanghainese, i.e. the Shanghai dialect, also known as Hu, is the standard variety of Wu, which is the most populous dialect (around 80 million users) in China second only to Mandarin. Shanghainese is spoken in the city of Shanghai and the surrounding regions in the Yangtze Delta. Like other Wu dialects, Shanghainese is basically unintelligible to other Chinese dialects out of the Yangtze Delta area. Shanghainese contains vocabulary and expressions from the entire northern Wu area (southern Jiangsu and northern Zhejiang) and has served as the regional lingua franca since its opening up in the first half of the nineteenth century (Han et al., 2013). In English, the term ‘Shanghainese’ is sometimes used to refer to Wu. Narrowly speaking, Shanghainese is estimated to have over 20 million speakers all over the world, while, broadly, Wu (including standard Shanghainese) has more than 80 million users worldwide.

Like ‘Shanghainese’ is sometimes overextensively used to refer to Wu, the term ‘Cantonese’ is often misinterpreted as the sole dialect of Yue. Cantonese is a dialect, however, indeed referring to the (socially and politically) prestige variety of Yue. Unlike Shanghainese, Cantonese functions as a standard variety along with Mandarin in Hong Kong and in Macau. Due to some historical drivers of immigration, Cantonese happens to be the most well-known Chinese dialect especially outside China, so that it is even usually misused to refer to the notion of ‘Chinese’. Broadly speaking, there are around 60

million Cantonese (Yue) speakers around the world. Figure 2 presents a map of relationship between these dialects.

[INSERT FIGURE 2 HERE]

The number of overseas ‘Chinese’ speakers has also been increasing in recent years. For example, according to the Australian Bureau of Statistics, by 2011, 866 205 people in Australia, around 3.7% of the Australian population, claimed Chinese ethnicity by ancestry, while 4% of the total population was born in Mainland China (Australian Bureau of Statistics, 2012). While, historically, Cantonese is the predominant language of the Chinese immigrants, the number of Mandarin speakers has however surpassed that of Cantonese due to recent immigration from mainland China and Taiwan. For example, according to the 2011 Australian Census there are 263 673 speaker of Cantonese (as L1), around 1.1% of the Australian population, and 336 410 speakers of Mandarin (as L1), around 1.4% of the Australian population, in Australia (Australian Bureau of Statistics, 2013), which respectively ranks the fifth and second major languages (spoken at home) in the country (Australian Bureau of Statistics, 2012).

The phonological system

While the purpose of this paper is not to discuss in detail the phonological characteristics across the dialects, a general overview is provided here. Further information on the similarities and differences across Chinese dialects in phonology can be found in Zee (1999, 2003), Duanmu (1990, 2000), Xu et al. (1988).

The phonological role of tones is a somewhat challenging concept for monolingual English speakers and a useful one for SLPs to understand so that they exercise caution when speaking Chinese words when working with ESL Chinese speakers as tones are inextricably bound to the meaning of an utterance. That is, a change in tone can completely change the meaning of a word and therefore a sentence. Vowels and tones are equally important in Mandarin. There are altogether twenty-two consonants and nine vowels. A Chinese character is monosyllabic and most of them start with a consonant. However, only /n/, /ŋ/ and, very rarely, /ɿ/ can occur in the final position. Vowels can be monophthongs or diphthongs and function as rimes, the final element in a syllable, such as /a/ in /la/ or /ao/ in /lao/.

Traditionally, there are four tones in Mandarin, i.e. the level, the rise, the fall-rise and the fall (Zhu, 2007). It should be pointed out that a fifth tone, i.e. the neutral or light tone, is not simply the ‘neutral’ pronunciation of one of the other four tones. Instead, it also differentiates meanings, for example, *lǎozǐ* (the god of Taoism) and *lǎozì* (Dad). Therefore, in practical terms, there are altogether five defining tones in Mandarin. Again, tones are as important as vowels in the language since both are indispensable to make a syllable and to distinguish meanings.

Despite the two sounding mostly identical, some striking differences still exist between Pekingese and Mandarin (Nordhoff, Hammarström, Forkel, & Haspelmath, 2013). For example, Pekingese tends to overuse rhotic vowels (i.e. to place /ɿ/ in the final position) and to replace /w/ with /v/ before any vowel except /o/. Pekingese is famous for exaggerated tones and massive phonetic reductions that violate syllable formation rules in the standard variety.

Shanghainese is rich in vowels and consonants. In fact, it has the most vowels among all world languages (Wang, Ding, Tao, & Li, 2012). Unlike Mandarin and Pekingese, Shanghainese has voiced initial stops and/or affricates. The tonal system is also largely different from other Chinese dialects. It has seven tones with five in active use and two level tonal contrasts (high and low) while other major dialects such as Mandarin and Cantonese are fundamentally contour tonal.

Finally, Cantonese has the most syllabic combinations (around 630) among Chinese dialects. It uses tone contours to distinguish meanings (Snow, 2004). The number of tones, however, depends on the types of rime. Theoretically, there are nine tones in Cantonese. The number of phonemic tones, however, is six in Hong Kong and seven in Guangzhou, the capital city of the vicinity of Guangdong (i.e. Canton).

The writing system

The writing system of Chinese is based on a set of logogram systems, or ‘characters’. In mainland China and Singapore (and recently in Canada) it has promulgated a set of simplified forms, while in other places (Taiwan, Hong Kong, Macau and most overseas Chinese communities) a traditional writing system is mainly used. Generally speaking, the most obvious difference between traditional and simplified writing systems is the former tend to use more strokes to compose a character. The following examples present a visual comparison:

(4) Speech-Language Pathology and Audiology

言語病理學與聽覺學 (Traditional)

言语病理学与听觉学 (Simplified)

In modern Pekingese, a simplified writing system is solely used, while in modern Shanghainese, though a simplified writing system is applied by law, many words in Shanghainese that are absent in Mandarin are still written in the traditional way. In the Canton vicinity, like modern Shanghainese, the Cantonese writing system is composed of mainly the simplified plus a big fraction of the traditional system. While in Hong Kong and Macau (as well as many overseas Cantonese communities) the traditional system is used.

The vocabulary

The vocabulary in modern Chinese dialects largely shares the same basic reservoir with some dialectal-specific idiomatic expressions. Some dialects have been influenced by different foreign languages. And this is due to contact between languages which has occurred in big cities in China (from mid-19th to mid-20th century) due to their being colonies. In that time, the ‘suzerian’ languages became so dominant that they easily found their way to integrate themselves with the regional dialects. However, modern Shanghainese and Cantonese are believed to retain and use more frequently the old (archaic) and middle Chinese lexicons. Some of these lexicons still exist in today’s Mandarin and Beijing dialect but are only used in very formal contexts. Therefore, even in writing, Shanghainese and Cantonese can be very informal to Mandarin eyes. For example, vocabulary in Shanghainese and Mandarin has only 30% overlap. Such lexical similarity (or dissimilarity) is roughly the same as between English and French.

The syntax

Though typologically characterised as a topic-prominent language (Li & Thompson 1976), Chinese dialects differ in the degree of topic prominence. For example, while in Shanghainese almost every part of speech can be topicalised (Han & Shi, 2015, in press), Mandarin is most comfortable with the topicalisation of nominal (or pronominal) subjects and objects. In Cantonese, however, only very occasionally are topicalised objects acceptable, as illustrated in Table I.

There are also differences in the word order of the *GIVE* sentence, a ditransitive structure involving both a direct and an indirect object. For example, while (5) is often heard in Cantonese, the structure is hardly acceptable in Mandarin or Shanghainese with those dialects using a different order as per example (6).

(5) 给一支笔他。

Give a pen to him.

(6) 给他一支笔。

Give him a pen.

In other words, the acceptability of structures such as the inversion of indirect and direct object (usually through deletion or insertion of a preposition such as ‘to’ and ‘for’ in English) across Chinese dialects is not the same. See Table II for further comparison.

[INSERT TABLE II HERE]

Word order is, however, the one most important typological parameters in the classification of languages (Greenberg, 1966) since it is one of the most discernible syntactic variations. Word order is particularly important when it comes to topic-

prominent languages without much subject-verb agreement and/or case marking devices (Han, 2013).

Summary

Box 1 below summarises the differences in terms and definitions between Chinese and its dialects.

[INSERT BOX 1 HERE]

Generally, different dialects are spoken by residents in different regions (hence their names), while Mandarin is used across regions. Due to it being the standard teaching variety in schools, e.g. in mainland China and Taiwan, Mandarin has the most users compared to other Chinese dialects.

The following table (Table III) provides a comparative summary of the standard varieties of three of the most spoken dialects and Mandarin with regard to region, number of users, phonology, lexicon and writing, morphology, and word order.

[INSERT TABLE III HERE]

Problems existing in current ‘Chinese’ studies

Apart from a very limited number of clearly and correctly claimed studies of Chinese dialects (e.g. Yip & Matthews, 2000), most studies of ‘Chinese’ are actually studies of Mandarin but neglect to specify this (Ooi & Wong, 2012). Without having considered the

demographic factors (especially the dialectal backgrounds) of the ‘Chinese/Mandarin’ speakers, the findings reported by these studies may be compromised in a number of ways. First, many ‘Mandarin’ studies are actually Mandarin spoken in a particular area, i.e. where it is co-used with another Chinese dialects, so that the results might not be applicable to other Mandarin speakers with different dialectal backgrounds. In fact, most cross-linguistic studies involving ‘Chinese’ do not pay too much attention to their research subjects’ dialectal knowledge. Second, most comparative studies take Cantonese as the control dialect as opposed to Mandarin (e.g. Law & So, 2006) while paying little attention to other populous, yet typologically very different dialects, such as Shanghainese.

For example, Zhang (2010) examined the linguistic effect of cross-linguistic transfer (positive and negative) on morphological awareness of Chinese-English bilingual children by selecting participants from a county in Northeast China, which, to quote Zhang, is ‘the business and political center’ (p. 922). However, due to the great labour migration since the ‘Reform and Opening-up Policy’ starting from late 1970s, business and/or political centers in China have seen an increasing inflow of migrant workers whose native dialects are not even close to Mandarin or other Northern dialects (Gui, Berry, & Zheng, 2012). Cross-dialectal and typological interference between these dialects is likely to occur. Not identifying the linguistic backgrounds of the subjects or the assumption that subjects currently living in Northern China are mono-dialectal Mandarin speakers could lead to biased results. For example, according to Zhang’s consistent analysis of Chinese as a head-final language, its construction of compound nouns should be in the manner of ‘Det.+N.’, such as ‘公鸡’ (male-chicken). In some

dialects in Zhejiang and Fujian (two Southeastern provinces in China), however, the ‘male-chicken’ is somehow ‘chicken-male’ (鸡公), which fits in with a head-initial analysis. Uses like the latter are, therefore, identified as ‘wrong’ performances as per the standard rules, which, in fact, are just normal dialectal variations. What is more important is, even for the numerous Northern dialects, they are not typologically identical to Mandarin.

Chen (2007) in his study of the word order (which he called ‘information sequence’) acquisition of Chinese-English bilinguals, found that English CSL (Chinese as a second language) learners tended to acquire target-like *because-initial* order in Chinese (despite the *because-medial* preference in English), but not the *because-so* paradigm.

In a ‘because-initial’ sentence, the ‘because’ clause proceeds the main clause, e.g. (7), while in a ‘because-medial’ sentence, the ‘because’ clause goes after the main clause, e.g. (8). On the other hand, the ‘so’ clause goes after the ‘because’ clause in the ‘because-so’ structure, e.g. (9).

(7) 因为狗叫了，小男孩跑了。

Because the dog barked, the boy ran.

(8) 小男孩跑了，因为狗叫了。

The boy ran, because the dog barked.

(9) 因为狗叫了，所以小男孩跑了。

Because the dog barked, so the boy ran.

Chen’s study implies that English-L1 Chinese learners transfer what is extant (i.e. either *because-initial* or *because-medial*) but not what is absent (i.e. *because-so*) in L1 to L2. However, the ‘Chinese’ used by the participants in his study is actually Taiwanese

logical sequence of words and phrases to form meaningful sentences. Syntactic studies are important in many ways including providing us with comprehensive understanding of human languages. It is particularly important to point out that syntactic studies from a cross-linguistic perspective are critical in understanding bilingualism and cognitive development (Cook & Bassetti, 2011).

Considering the complexities between Chinese dialects and the complicated linguistic background a Chinese client may have, it is necessary that clinicians and researchers have accurate linguistic information about the clients. Development of reliable threshold indicators of possible language impairment is thus urgently called for so that accurate diagnosis can be achieved. Therefore it is important that a more nuanced understanding of ‘Chinese’ as a language with multiple dialects with distinct syntactic differences is developed by SLPs working with people who have ‘Chinese’ as their L1.

L1 bidialectism and L2 syntactic acquisition

Generally, cross-linguistic transfer is expected in second-language acquisition and can pose a challenge for SLPs distinguishing between differences arising from transfer and actual language impairment. Paradis et al. (2000) found that due to the fact that switches are more likely to happen to the grammatical boundaries between L1 and L2, bilinguals are more sensitive to syntactic inconsistencies. Therefore, bilinguals tend to be more syntactically aware of the language they use most (Bedore, Fiestas, Pena, & Nagy, 2006). Studies have also found that bilinguals, in order to balance the syntactic inconsistencies, may use some ‘bridge’ constructions, which are more like transitional structures an L2 learner may use to access the target structures, to replace the more complex ones in the

target language (Gawlitzek-Maiwald & Tracy, 1996), or simply use a low-frequency or unusual construction (Bedore & Peña, 2008). For example, in Gawlitzek-Maiwald and Tracy's (1996) study, an English child learning German used an English infinitival construction as a bridge to the construction of the slightly more complex German infinitival construction. Bedore & Peña (2008) found, on the other hand, a Spanish child learning English tended to use more past progressive constructions in narratives while English monolinguals are more likely to use the simple past tense. Therefore, considering the topic-prominent nature of Chinese and subject-prominent nature of English, Chinese (L1)-English (L2) bilinguals may use more low frequent or unusual topic-comment structures in English. The frequency of this behaviour may vary with different dialectal backgrounds. Therefore, differentially diagnosing between syntactic differences arising from L1 to L2 transfer versus language impairment relies on an understanding of the potential for these cross-linguistic transfers as well as an understanding of the characteristics of the different languages/dialects spoken.

It is also proposed that, rather than prediction, information from observations should serve to improve the accuracy of diagnostic decisions with regard to bilingual/bidialectal children (Gillam et al., 2013). The following examples (11)-(16) were observed and collected in mainland China and Hong Kong by the authors cited below. The speakers under investigation were all bidialectal Chinese-L1 English learners (between five and twelve for (11)-(15) and both young and adult learners for (16)). Such performance is traditionally labelled as 'wrong'. However, despite the fact that the examples are technically 'wrong', the production can be explained by cross-linguistic transfer and are therefore not 'wrong' for these individuals (Isurin, 2005). As all new learning involves

transfer based on previous learning (Bransford , Brown, & Cocking, 2000), these ‘wrong’ sentences in L2 are the results of negative transfer from the learners’ L1, also known as L1 ‘interference’. In other words, speakers of (11)-(15) transfer the L1 specific linguistic features onto the L2 structures, a process that occurs particularly when there are greater typological differences between the two languages (Ellis, 1994). Also, negative transfer can occur in a reverse manner, i.e. from L2 to L1, as evidenced in (16) (Jarvis & Pavlenko, 2008). Therefore, understanding the influence of these types of cross-linguistic transfers will enable SLPs to avoid diagnosis of language impairment where there is none, and/or intervention for structures that are not incorrect.

These ‘incorrect’ structures in English (the target sentence) follow the structures from the Chinese language (or source sentence). These include features such as word order in (11) and (14), object and subject dropping in (12) and (13), infinitival dropping in (15) and auxiliary adding in (16). One can expect similar patterns will occur for the Chinese L1 speaker when producing English sentences, and these patterns will be subject to dialectal typologies of the L1 of the speakers. It may be that the structure of the target English sentences could be influenced by several dialects for multi-dialectal Chinese speakers, or by only one dialect for monodialectal speakers of Chinese. However, there is currently no evidence that particular patterns of sentence structure in English are likely to indicate a primary language impairment that is also present in the speaker’s Chinese L1.

(11) 伊苹果欢喜 (Shanghainese)

*He apple likes. (Han, 2008)

(12) 你拿, 我食 (Cantonese)

*You get Ø, I eat Ø. (Yip & Matthews, 2006)

(13) 落雨啦 (Cantonese/Shanghainese)

*Ø raining. (Han, 2013)

(14) 我先跑路 (Shanghainese/Mandarin)

*I first run. (Han, 2013)

(15) 我喜欢打篮球 (Cantonese/Shanghainese/Mandarin)

*I like Ø play basketball. (Han, 2012)

(16) I have had breakfast.

我 *有 吃过早饭 (Mandarin/Cantonese/Shanghainese) (Han, 2012)

Considering the dialectal backgrounds of the subjects, based on observations, it would be predicted that:

- Shanghainese-Mandarin and/or Cantonese-Mandarin bidialectals negatively transfer less in structures like (11), (12) and (13) in English than Shanghainese and/or Cantonese monodialectals. The bidialectal speakers who are able to speak Mandarin in addition to Shanghainese or Cantonese are not advantaged in learning English as the Mandarin structures also mismatch the English structures.
- Shanghainese-Mandarin and/or Cantonese-Mandarin bidialectals use less possible structures like (14) and (15) in English than Pekingnese-Mandarin learners.
- Structures like (16) are more liable to happen for Shanghainese-Mandarin and Cantonese-Mandarin bidialectals than for Pekingnese-Mandarin ones.

It is generally believed that bilingual children present with poorer performance on measures of L1 and L2 compared to monolingual speakers (Gillam et al., 2013). The above observations suggest, however, different dialectal backgrounds in L1 will also make a difference in children's syntactic performance in L2. Thus, accurate information

about the languages/dialects that a child speaks is essential to facilitate the diagnostic process.

Implications for assessment

It is a global phenomenon that bilingual children are likely to be overidentified and/or underidentified for language impairment or learning disabilities (Bedore & Peña, 2008; Gillam et al., 2013). MacWhinney (2005), taking a functional perspective, pointed out that similar forms between L1 and L2 are more salient to the speaker so that they are more highly frequently used, while those forms unique to L1 or L2 are less salient and less likely to be used. The proposal of this paper is, however, that for Chinese bilingual speakers the dialectal background of their Chinese L1 plays an important role. The more syntactically complex L1 dialects and L2 are, the less negative syntactic transfer from L1 on L2 is expected. That is, it is expected that speakers of syntactically complex L1 dialects would make less errors in L2 than their monodialectal counterparts. This is due to bidialectals having more complex knowledge of the syntax-semantics interface so that they turn out to be more sensitive than monodialectals to the syntactic differences between L1 and L2.

Understanding the Chinese-speaking child's linguistic capabilities is essential to ensure equal access and quality of language impairment diagnosis, assessment and intervention. As Chinese immigration continues to increase, the linguistic needs of the immigrant population are likely to diverge from the linguistic capabilities of SLPs. Therefore, further research on language discordance is needed in order to reduce the risk of 'language discordant clinical encounters' (Sears, Khan, Ardern, & Tamim, 2013) for

these children and negative health outcomes associated. Of critical importance is an understanding that cross-linguistic transfer will differ depending on Chinese dialects and the language mix of the speaker. Without doubt, it is imperative to distinguish between normal linguistic performances of L1 bidialectals versus language impairment.

It is incisively pointed out that ‘a particular difficulty in assessment of language ability in bilingual children is the lack of standardised tests that are valid and reliable for that purpose’ (Bedore & Peña, 2008, p. 17). For example, Spaulding, Plante and Farinella (2006) found most available tests of English linguistic abilities are not as reliable as they should be. This is because most tests use arbitrary cutoff scores, instead of empirically derived cut scores for identification, while sensitivity and specificity values were not available or could not be calculated for most tests (also see Gillam et al., 2013, p. 1820). On the other hand, research has shown that bilingual children’s performances should not be compared to monolingual normative data (Gn, Brebner, & McCormack, 2014; Teoh et al., 2012). Therefore, when it comes to the morphosyntactic domain, for bilingual Chinese-L1 children, a series of reliable threshold indicators of possible language impairment drawn from the careful study of normative groups taking into account the dialectal backgrounds is urgently needed. The normative group should consist of children in the same bilingual language context and with the same dialectal backgrounds. This will enable SLPs to determine whether suspected language impairment exists for particular children so that accurate diagnoses can be made.

Bedore and Peña (2008) pointed out that three aspects should be taken into serious consideration for the development of appropriate assessment tools and practices for identification of language impairment in bilingual children. These need to be applied to

Chinese-L1 children in the light of the differences between Chinese dialects and the common occurrence of bidialectism in Chinese. First, that the children's performance should be compared to appropriate normative groups. Therefore, Chinese-L1 bilinguals should be compared to children with the same L1 dialectal backgrounds. Second, appropriate targets for the language should be developed. Consequently, for Chinese speaking children, markers/indicators of language impairment should be developed from careful study of normative peers, i.e. those that speak the same Chinese dialect(s). Third, the way that two languages might interact or influence each other should be considered. In the case of Chinese speaking children, this consideration will need to be made based on the features of the languages/dialects that the child has.

There is sufficient evidence suggesting that cross-language associations are affected by a series of variables, especially by the typological linguistic features (Kohnert, Hernandez, & Conboy, 2010). In addition to the above three aspects, it is believed that it is equally important to pay attention to the differences between L1 bidialectism (e.g. degree of syntactic complexity) and L2.

The complexity of conducting appropriate, unbiased assessment of bilingual children's language has been acknowledged in the literature (Teoh et al., 2012). There are few ready-for-use tests for identification of language impairment in bilingual children, particularly for lower incidence home languages such as Chinese. There is even less availability of accurate information on language development for children who speak bidialectal L1. It has been outlined how Chinese-L1 bilingual children may differ in L2 performances because of lack of exposure (input and output) in the target language or because of their varied L1 dialectal backgrounds, but not necessarily because of language

impairment. It is worth mentioning that the European COST initiative *Language Impairment in a Multilingual Society: Linguistic Patterns and the Road to Assessment* (European Union COST Action, 2008-2013) adopts an interesting approach for bilingual children's assessment by attempting to isolate the influences of bilingual language learning from language impairment. The approach is applicable across languages and thus possibly has implications for speakers with complicated L1 backgrounds, such as Chinese bidialectals and/or multidialectals.

Summary and Conclusion

The primary purpose of this paper was to inform SLP practice by describing and defining the languages and dialects spoken by Chinese people. Important considerations have been outlined for appropriate assessment tools and practices for identification of language impairment in bilingual and bidialectal children. In summary, a series of reliable threshold indicators for possible language impairment is urgently needed to facilitate accurate diagnosis of language impairment in bilingual/bidialectal speakers of Chinese languages and dialects. Furthermore, it is imperative that SLPs and clinicians seek case-specific linguistic information that is accurate for clients who have Chinese as their L1. This will inform assessment and diagnosis through having developed an understanding the characteristics of the clients' Chinese dialects.

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TABLES

Table I. Difference in the degree of topic-prominence between Cantonese, Mandarin and Shanghainese

Topic-Comment Structure	Cantonese	Mandarin	Shanghainese
我呢，不吃千层面。 I TOPIC MARKER, don't eat lasagne.	×	✓	✓
千层面呢，我不吃。 Lasagne TOPIC MARKER, I don't eat.	✓	✓	✓
我千层面呢，不吃。 I lasagne TOPIC MARKER, don't eat.	×	?	✓
我呢，千层面呢，不吃。 I TOPIC MARKER, lasagne TOPIC MARKER, don't eat.	×	×	✓
急急忙忙呢，我吃了千层面。 Quickly TOPIC MARKER, I eat lasagne.	×	×	✓
和我儿子呢，我吃了千层面。 With my son TOPIC MARKER, I eat lasagne.	×	×	✓
吃呢，我千层面。 Eat TOPIC MARKER, I lasagne.	×	×	✓

Table II. Word order of the *GIVE* structure in Cantonese, Mandarin and Shanghainese

Word order of the <i>GIVE</i> structure	Cantonese	Mandarin	Shanghainese
炒一盆菜给他 Cook a meal for him.	✓	✓	✓
炒他一盆菜 Cook him a meal.	✓	×	×
买一枝花给她 Buy a flower for her.	✓	?	✓
买她一枝花 Buy her a flower	✓	×	×

Table III. Comparison between Mandarin, Cantonese, Shanghainese and Pekingese.

	Places spoken in China	Estimate d number of users	Phonology	Lexicon and writing	Morphology	Word order
Mandarin	China (including Taiwan, Hong Kong and Macau), Singapore.	Over 1 billion	9 phonemic vowels and 22 consonants; five tones; around 420 syllabic combinations	Standard lexicons of Modern Chinese; Simplified writing system in Mainland China, Singapore and Canada, but traditional system in Taiwan, Hong Kong and Macau	Not rich in inflections. Inflections with similar meanings may be in different forms compared to other dialects. e.g. the plural morpheme for pronouns: ‘们’	The word order between subject, verb, object and other major part of speech (such as adverbial and complement) varies. e.g. within the SVO order, Mandarin allows SAdvVO, but not AdvSVO, or SVOAdv
Cantonese	The vicinity of Canton (Guangzhou), Hong Kong, Macau and Singapore.	60 million	11 phonemic vowels and 19 consonants; it has the most sound combinations , 630; nine tones	Much archaic and middle Chinese vocabulary still in use; Simplified writing system in mainland China	Plural morpheme for pronouns: ‘啲’	Allows SVOAdv and SAdvVO (very rarely), but not AdvSVO
Shanghainese	The Yangtze Delta.	20 million	14 phonemic vowels and 28 consonants;	Much archaic and middle Chinese vocabulary still	Plural morpheme for pronouns: ‘拉’	Allows AdvSVO, SAdvVO and SVOAdv (occasionally)

			seven tones	in use. Mainly Simplified writing system		
Pekingese	The municipality of Beijing.	20 million	Same number of vowels and consonants as Mandarin, but with extensive rhotic as the final; five tones	Modern Chinese. Simplified writing system	Plural morpheme for pronouns: ‘们’	Similar to Mandarin

BOX

Box 1: Terms of Chinese and its dialects

<i>Chinese</i>	A term usually misused to refer to one common language that is used by the 'Chinese people'. Modern Chinese linguistics generally considers 'Chinese' to be a general language category that consists of many varieties, i.e. Chinese dialects, which are typologically different from each other.
<i>Mandarin</i>	One of the many varieties of Chinese dialects. However, Mandarin is the only standard variety for major Chinese speaking communities (e.g. mainland China, Taiwan etc.). Linguistically, Mandarin grammar is prescribed and consequently has no sub-varieties as most other major dialects in China do.
<i>The Northern dialect</i>	The dialect that is the phonetic, phonological as well as tonal basis for Mandarin. However, it is syntactically

	and/or lexically distinct from the latter. It is mainly spoken in the Northern (including the Northeastern and Northwestern) part of China. The Northern, Eastern, and Southwestern dialects share most linguistic characteristics with Mandarin and are mutually intelligible.
<i>Wu dialect</i>	The most populous Chinese dialect second only to Mandarin. It is mainly spoken in the East and Southeast part of China.
<i>Yue dialect</i>	The third most populous Chinese dialect mainly used in the southern part of China (including Hong Kong and Macau).
<i>Pekingese</i>	A standard variety* of the Northern Dialect
<i>Shanghainese</i>	A standard variety of Wu.
<i>Cantonese:</i>	A standard variety of Yue. (Refer to Figure 2)

*standard varieties are subdialects that have historically served as a lingua franca for a particular dialect.

FIGURES

Figure 1. Geographical distribution of Chinese dialects.

Figure 2. Dialectal relationship of Chinese.