

# REPORT ON THE 2<sup>ND</sup> MEETING OF THE SINGAPORE CHILD LANGUAGE SPECIAL INTEREST GROUP

## A Survey of the Current Research on Language Norming in Singapore

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*Organized by: Singapore Child Language Special Interest Group*

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*Time: 9.00am – 11.30am*

*Venue: NUS, AS5/02-02 (Video Room 1)*

### **Opening of the 2<sup>nd</sup> SCLSIG Meeting:**

The second meeting of the Singapore Child Language Special Interest Group (SIG) was convened by Dr. Madalena Cruz-Ferreira in October this year. Its 25 participants come from diverse backgrounds but share a common interest in child language research. Among the participants were teachers, researchers, students and speech-language therapists.

The meeting commenced with a welcome address by Dr. Cruz-Ferreira. The first meeting had taken place one year ago, and the theme for this year's meeting was decided upon then. While the past year's meeting had offered an outline of child language research in Singapore, the second meeting related more specifically to the issues surrounding current language norming efforts in Singapore. Language norming is particularly crucial with the new Masters of Arts degree in Speech Language Pathology jointly offered by NUS' Faculty of Arts and Social Sciences and the Yong Loo Lin School of Medicine set to take off in January next year. In her opening address, Dr. Cruz-Ferreira also suggested a couple of themes that can possibly be taken up at the next meeting. The first of these is child multilingualism, which is especially important in light of Singapore's language environment. The second is school language or languages, those spoken by children and those taught by teachers. Feedback and other suggestions are welcome on this matter.

Dr. Cruz-Ferreira continued to highlight the recent activities of the SIG, which now comprises 80 members. An online network (<http://groups.yahoo.com/group/sclsig>) has been created in a bid to keep most of the SIG's activities online and accessible. This network will also allow members of the SIG to stay connected and engage in online discussion on issues of child language research. Members are to feel free to propose discussion topics or request for information on the network.

Other than the online network that has been set up, the *Bibliography of Child Language Research in Singapore* (Cruz-Ferreira, 2006) was updated recently in August. It has been made available on the website of the SAAL (<http://www.saal.org.sg/sigsmadalena1.html>), an organization which has been exceptionally supportive of the SIG and its activities. In addition, it is now accessible internationally, through incorporation in the CHILDES bibliography (<http://childes.psy.cmu.edu/bibs/singapore.html>). There are plans to update the *Bibliography* annually and Dr Cruz-Ferreira requested that researchers, project supervisors and students alike, keep her updated on their research efforts where child language is concerned. Besides current research, past research in other languages such as Malay,

Mandarin or Tamil are also welcome. All notices of research should include English abstracts.

The meeting then proceeded with presentations by Dr Cruz-Ferreira and invited speakers.

### **Presentations**

1. “Current Research on Language Norming in Singapore” by Dr. Madalena Cruz-Ferreira, Department of English Language and Literature, NUS

Dr. Cruz-Ferreira highlighted that the theme of the meeting was “language norming” and not “child language norming”. As reason stands, it does not make sense to research child language without knowing the target language(s) to which children are exposed. Norming will allow researchers to understand how children develop in the context of the local language environment.

The main thrust of this presentation concerned data, method and purpose. Where data is concerned, norms can be descriptive or prescriptive. At present, research is being produced from both the National Institute of Education and the National University of Singapore, with the former churning out the bulk of research. The problem however lies with the fact that most available research is concerned with the prescriptive sense of norming, because it has been produced for pedagogical reasons. There is thus impetus for the study of data to establish how people actually speak and not just how they are taught to speak. Dr. Cruz-Ferreira then postulated that there might be a wealth of invisible data for norming from the experiences of speech-language therapists who have to assess for errors. However, relevant publications cannot be found and Dr. Cruz-Ferreira hopes that speech-language therapists will come forward to share their data.

Next, methodology is also an issue for norming. Sometimes, language assessment models are imported in order to define norms. Problems can arise from importing these models across the board. For example, it is often difficult and inaccurate to translate assessment tools. Thus, models which have to be imported must be developed in actual practice, and not in theory only.

Finally, to consolidate the purpose of finding out more about child language in Singapore, Dr. Cruz-Ferreira proposed to set up a collection of publications or an online newsletter for members to share short articles, so that everyone can be kept informed of current trends.

The audience then raised points about the feasibility of certain assessment tools being translated across different languages and the vast potential in child language research, considering the diverse language environments children in Singapore are exposed to. The issue of importing assessment tools across different languages and cultures was to be brought up again in later presentations.

2. “Infant Vocabulary Norms in Singapore” by Dr. Tan Seok Hui, Department of Psychology, NUS

In the second presentation, Dr. Tan Seok Hui shared with the audience her ongoing study that aims to establish vocabulary norms for Singaporean infants and toddlers who are acquiring English, Malay and/ or Mandarin.

Dr. Tan's study makes use mainly of the MacArthur Communicative Development Inventories (MCDI) (Fenson et al., 1993). The MCDI is a parental report checklist that is useful in measuring vocabulary in infants and toddlers. The version that is used for 8 to 16 month-old infants is different from the one used for toddlers who are 16 to 30 months old. Both have been adapted for use in Singapore. The study also tries to incorporate the investigation of speech samples based on observations of the children at play with their caregiver(s), so as to test the validity and reliability of these parental report checklists. Data obtained from the MCDI will then be used to examine theoretical issues. Among these are whether infants exhibit noun bias in their development (cf. Choi & Gopnik, 1995; Tardif, Shatz & Naigles, 1997) and whether they have a similar proportion of translation equivalents in their vocabularies that are similar to those that have been reported in earlier studies (e.g. Pearson, Fernandez & Oller, 1995).

Thus far, Dr. Tan's study aims to investigate trends among the local languages of English, Malay and Mandarin. There is currently not enough data for it to incorporate Tamil. There are plans to collect data from 80 monolingual children and 80 multilingual children. However, Dr. Tan reported that there are not enough informants to make up that number. This is especially so in the 8 to 16 months-old range. Dr Tan consequently appealed to the audience who may have very young children or who may be in contact with people who have very young children to aid her in recruitment efforts.

From the data that has been collected up to now, more than 90 percent of the children come from homes that speak English predominantly. Bilingual children do not appear to have smaller productive MCDI vocabulary than their monolingual counterparts. Other than that, among children whose caregivers' predominant language is English, a higher production of nouns by the caregiver corresponds to a higher production of nouns by the child, and a higher production of verbs by the caregiver corresponds to a higher production of verbs by the child. However, when all data is considered together, there seems to be no very distinct noun bias observed.

Several issues were raised in the course of the presentation. The role of diary studies was discussed and Dr Tan expressed that the MCDI and diary studies can be complementary. The MCDI is a snapshot of children's development, albeit an accurate one, while diary studies might be more comprehensive but tedious and unrealistic to carry out for a large number of children. Dr. Susan Rickard Liow and Dr. Cruz-Ferreira also communicated their individual stances on translation equivalence. The general notion was that the concept of translation equivalence is worth considering but has to be taken with a pinch of salt. The third issue that was then brought up was that of whether nouns and verbs are indeed conceptually different to children. Dr. Steven Graham conveyed that they may not be that different because children also use nouns to communicate actions. Finally, Ms. Joyce Lew and Ms. Alison Cannon stated that the type of caregiver-child interaction has bearings on the way children develop linguistically. The factors that they put forth separately were cultural background and maternal age. These are matters that can possibly be taken into consideration in this study and future ones.

3. "Norming the Wechsler Test of Adult Reading (WTAR)" by Dr. Steven Graham, Department of Psychology, NUS and Dr. Tomasina Oh, Department of English Language and Literature, NUS

In the presentation that followed, Dr. Tomasina Oh shared on behalf of Dr. Graham and herself their plans to norm the Wechsler Test of Adult Reading (WTAR), a measure of pre-morbid (before illness) intellectual function (IQ). Dr. Oh explained that when working with patient populations, it is crucial to have an idea of the patient's current and pre-morbid intellectual functioning. This information is useful because it allows the researcher to use appropriately matched control participants. Knowing a patient's intellectual status also helps the researcher establish whether failure on a test of cognition (e.g. executive function, memory or language) is due to a specific deficit or simply a general tendency to perform poorly.

The WTAR comprises a list of words that have irregular grapheme-phoneme relationships (i.e. the pronunciation of these words cannot be guessed from their spelling), which participants are asked to read. The rationale behind this test is that reading recognition remains relatively stable even when a person experiences cognitive decline, and so it can be used as an estimate for pre-morbid IQ (The Psychological Corporation, 2001). Scoring is based on the correct pronunciation of these words, and the total score refers to the number of words read correctly.

One problem with using the test in Singapore, however, is that the stress patterns and hence pronunciation of words by speakers of local varieties of English is quite different from that of English speakers in the UK and the US, where the test is normed. This raises the possibility that researchers using the test here could end up under-estimating their patients' pre-morbid IQ. It becomes difficult to tell if the different pronunciation is due to the participant not knowing the word or if it is a result of the different stress/pronunciation patterns that the participant is used to. The norming study that Dr. Oh and Dr. Graham will carry out aims to address this problem by establishing how the list of words in the WTAR are pronounced by speakers of local varieties of English, taking into account different education levels, first languages and age groups.

The issues brought up by the audience dealt with the difficulty of establishing local stress patterns, as well as the way sampling might affect what these norms are. While Dr. Tan Ying Ying raised the earlier point, Dr. Rita Elaine Silver highlighted that sampling has to be carried out with care because the way people speak can be affected by factors such as social strata and even what one's parents' professions are. Dr. Rickard Liow then expressed concern over the ratio of different L1 groups that is to be used, considering the large number of subgroups of English speakers in Singapore. There is cause for concern because bilingual speakers of English and Malay speak English differently from bilingual speakers of English and Mandarin or even bilingual speakers of English and Tamil. In response, Dr. Oh assured the audience that group performances will be taken into consideration if there are enough participants from different ethnic backgrounds. Dr. Graham concluded the presentation by reiterating the need for the WTAR to be normed.

4. "Spelling Development in Singapore: Does Home Language Make a Difference?" by Dr. Susan Rickard Liow, Sajlia Bte Jalil and Stephanie Yeong Hui Min, Department of Psychology, NUS

The final presentation of the day was a shared effort between Dr. Rickard Liow, Ms Sajlia Bte Jalil and Ms Stephanie Yeong. The presentation was based on three past experiments that are linked by a common theme. The experiments focused on spelling development in kindergarten children, and supported the notion that spelling errors offer insight on the

relationships between oral language, phonological knowledge and literacy development. Singapore's unique multilingual environment allowed the establishment of significant differences in early cognitive processing due to the child's home language. One major postulation was that if critical skills like phonological awareness are learned from spoken language or own speech, the influence of this knowledge should be evident in the spelling of bilingual children. These three experiments were thus designed to study 5 to 7 year-old children's early spellings to dictation to see how home languages influence literacy development in first language (L1) and second language (L2).

Dr. Rickard Liow shared with the audience her experiment first. The participants were 80 second-year kindergarten students from a Singapore government kindergarten. Their mean age was 6.22 years and they came from three different language backgrounds. 31 of them were exposed to English at home, 21 to Mandarin and 29 to Malay. At school, they were exposed to 75 minutes of English language learning per day. The experiment, which was adapted from Treiman et al's (1994) experiment on flaps, required these participants to listen to a tape recording of a female Singaporean who would pronounce words such as water with a flap in the <t> position. These words with flaps contain a single medial [t] or [d] followed by a vowel, or a vowel plus [r]. The participants would then have to fill in answer sheets to determine if they had heard a <t> or <d> in the position of the flap.

The flaps spelling paradigm is as follows. For early spellings, children who make use of phonological information will tend to use the letter <d> to spell words with spoken t-flaps, even with a context sentence for the target word. Hence, a <d> bias shows use of phonological awareness. Factoring in this paradigm, Dr. Rickard Liow's experiment found that English word spellings are consistent with the features of the child's home language. Malay-L1 children use more phonological knowledge and show an advantage for multi-syllabic words, Mandarin-L1 children are more sensitive to word frequency and use more visual skills, and only English-L1 children combine visual and phonological knowledge. These results are expected because of certain trends like the following. In kindergarten, Mandarin is taught through rote learning and is not likely to promote phonological awareness for English literacy. Standard Malay's Rumi orthography-phonology relationship is shallow when compared to English, and this is a possible cause for Malay children using more phonological awareness than the other children. It is thus supported that bilingual children's experience with home language(s) whose features contrast with Standard English influences metalinguistic knowledge and that qualitative analyses of spelling can help researchers study cognitive-linguistic processing.

The second experiment was presented by Ms Yeong. This experiment investigated how phonological features of the home language would affect spellings in Standard English. The participants are 51 second year kindergarten students whose mean age was 5.71 years. 27 of them were exposed to English at home, and 24 to Mandarin. The main task they had to carry out were spelling tests that involved English word spellings comprising <v> and <b>, two letters whose corresponding phonemes are absent in Mandarin. It was predicted that the Mandarin-L1/ English-L2 children's English word spellings involving <v> and <b> would be poorer than that of matched English-L1/Mandarin-L2 speakers. Such a finding would suggest that pre-readers' spellings are based on speech-based representations

Ms. Yeong found that the predicted interaction between phoneme type and language background was indeed significant for both sets of phonemes ([f] vs. [v] & [p] vs. [b]). However, in light of errors made, the interaction between type of confusion and language

background was only significant for [v] and [f] but not for [b] and [p]. Mr. Keith Tan questioned, from the audience, if the Mandarin-L1/English-L2 children's knowledge of the Hanyu Pinyin <b> sound might have interfered with their English spelling for [b], but Ms. Yeong said that this would be unlikely, because the Hanyu Pinyin <b> sound is an unaspirated [p] and does not sound like the [b] sound the children had been asked to spell. Ms. Yeong's conclusion was that English second language learners have specific difficulties in spelling acquisition due to the differences in the phonology inventories of their first language and English. In addition, Mandarin-L1 children have weaker phonological representations for English than the English-L1 children who are able to use these representations to aid spelling. However, the Mandarin L-1 children were able to use a similar sounding phoneme from their phonological knowledge as a substitute for the novel sounds they hear in words, thus making confusion errors. The important question to then consider would be whether these errors might persist into adulthood, even with the standard exposure to English language in school.

Ms. Sajlia then presented the third and final experiment. Instead of focusing on English, as with the previous two experiments, this experiment paid attention to Malay language literacy. The research question was whether the emergent spellings of diglossic Malay-speaking children in Singapore would be systematically different from those of non-diglossic children in Jakarta when the same words are dictated with standard phonology, in consideration of the notion that early phonological representations influence subsequent development in literacy. While children in Singapore are exposed to both standard and non-standard Malay, the children in Jakarta are only exposed to standard Malay. The two varieties differ in phonology. For example, non-standard Malay substitutes [e] in place of [ɪ] for words like 'manis' (sweet) which is then pronounced [manɛs], and [o] in place of [ʊ] in words like 'kebun' (garden) which would be pronounced as [kəbɔn]. To investigate the aforementioned research question, 41 diglossic Malay-L1 children from Singapore (mean age 6;6) and 41 non-diglossic Malay-L1 children from Jakarta (mean age 5;6) were recruited. Both had been matched on word spelling proficiency. Among the tasks that they had to perform were word spelling tests and non-word spelling tests.

Findings were that when target words were dictated with standard pronunciation, Singaporean children made spelling vowel substitutions, <e> for <i> and <o> for <u>, that are consistent with non-standard pronunciation, whereas the non-diglossic Indonesian children did not. It is thus found that Malay word spellings are influenced by diglossia at home. Ms. Sajlia concluded her part of the presentation by saying that this study also shows that kindergarteners use their own speech representations to support early writing. This was followed by a brief discussion of the notion of redintegration (Thorn et al. 2005), in view of which it is possible that there is rapid decay of auditory input as well as reliance on stored representation to spell the word.

Indeed, these three experiments show that spelling errors offer insight on the relationships between oral language, phonological knowledge and literacy development. However, as was suggested by this final presentation, it remains a conundrum to decide whether bilingual children indeed have non-optimal literacy skills.

**Closing of the 2<sup>nd</sup> SCLSIG Meeting:**

After the presentations, participants continued to share and discuss matters over tea. The second SCLSIG meeting had come to an end and SCLSIG members are already enthusiastically anticipating another great year ahead.

## References

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