Dates: 19 to 21 June 2014

Venue: Lecture Theatre 5, Lee Shau Kee Building, The Chinese University of Hong Kong

Programme Book

Organized by



Department of Linguistics and Modern Languages 語言學及現代語言系

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賽馬會手語雙語共融教育計劃 JOCKEY CLUB SIGN BILINGUALISM AND CO-ENROLMENT IN DEAF EDUCATION PROGRAMME

手語及聾人研究中心

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Welcome Message

It is my pleasure to welcome you to the 2014 Symposium on Sign Bilingualism and Deaf Education. The aim of the conference is to share the state-of-the-art empirical findings of the Jockey Club Sign Bilingualism and Co-enrolment in Deaf Education Programme (2006-2014), conducted by the Centre for Sign Linguistics and Deaf Studies of The Chinese University of Hong Kong, with our fellow researchers, professionals and parents of deaf children. The programme has been funded by a generous donation from The Hong Kong Jockey Club Charities Trust.

The emergence of sign linguistics as a sub-discipline of linguistic research in the 1960s has triggered a growing interest in examining the role of natural sign language in bringing up and educating deaf students using a sign bilingual model. Since then, sign bilingualism has been practiced in deaf school settings. In recent years, this approach has been introduced into the regular school settings through the concept of co-enrollment, where a certain ratio of deaf children are brought into a mainstream classroom co-taught by a hearing teacher using primarily oral language and a deaf teacher using sign language. In this respect, sign bilingualism has acquired a new interpretation, which is to promote the partnership of sign language and spoken language, oral and written, in supporting deaf children's language and emotional development, as well as their academic attainment in regular school settings. This new concept of educating deaf children has been attracting the attention of researchers and educators in deaf education, as more and more programs of this nature have been developed worldwide. The symposium is meant to address these issues in response to the call for an evidence-based approach towards bilingualism and bilingual programming in deaf education. In this symposium, special focus will be on examining the ingredients for implementing sign bilingualism in deaf education in regular school settings in the Hong Kong context and hopefully to chart directions for future research in deaf education.

The symposium is honoured by the presence of a group of international experts in various fields of deaf-related research and education. The symposium is financially supported by The Hong Kong Jockey Club Charities Trust, the Department of Linguistics and Modern Languages and the Faculty of Arts of The Chinese University of Hong Kong. We hope that your participation in this symposium is a rewarding, fruitful and memorable experience.

With best regards,

Gladys Tang

Chairperson, Organizing Committee of the 2014 Symposium on Sign Bilingualism and Deaf Education Director, Centre for Sign Linguistics and Deaf Studies, Professor, Department of Linguistics and Modern Languages, The Chinese University of Hong Kong

Acknowledgements

Sponsors



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賽馬會手語雙語共融教育計劃 JOCKEY CLUB SIGN BILINGUALISM AND CO-ENROLMENT IN DEAF EDUCATION PROGRAMME

Acknowledgements

Supporting Organizations



Centre for Education Research Partnerships, National Technical Institute for the Deaf, Rochester Institute of Technology http://www.rit.edu/ntid/cerp/



Collaborative Innovation Center for Language Competence http://yynl.jsnu.edu.cn/



Deafness Cognition and Language Research Centre, University College London http://www.ucl.ac.uk/dcal/



Department of

Special Educati & Counselling 特殊教育與輔導學系 Department of Special Education and Counselling, The Hong Kong Institute of Education http://www.ied.edu.hk/sec/



National Center for Sign Language and Braille (China) http://ncslb.bnu.edu.cn/



Research and Technology Centre of Language and Communication Disorder, Shenzhen Research Institute, The Chinese University of Hong Kong http://www.lcd-cuhkszri.org/



The Institute of Human Communicative Research, The Chinese University of Hong Kong http://www.ihcr.cuhk.edu.hk/

Organization

Organizing Committee

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Programme

Day 1 Thursday 19 June 2014

Venue: Lecture Theatre 5 (LT5), Lee Shau Kee Building, The Chinese University of Hong Kong

13:00 - 14:00	Registration and Reception				
14:00 - 14:30	Opening Ceremony				
Theme I: Language Input					
14:30 - 15:10	Keynote 1	Bencie WOLL Why sign language is good for your brain?			
15:10 - 15:40	Talk 1	Chris K-M. YIU, Emily LAM, Tammy LAU Does early sign language input make a difference on deaf children with Auditory Brainstem Implants?			
15:40 - 16:00	Tea Break				
16:00 - 16:40	Keynote 2	Rachel I. MAYBERRY How infant language prepares the child's brain to read			
16:40 - 17:10	Talk 2	Qun LI, Gladys TANG, Chris K-M. YIU & Scholastica LAM Deaf students' literacy development in the SLCO Programme			
17:10 - 17:40	Panel Discussion I				

Day 2 Friday 20 June 2014

Venue: Lecture Theatre 5 (LT5), Lee Shau Kee Building, The Chinese University of Hong Kong

8:30 - 9:00	Registration and Reception				
Theme II: Language development and language assessment					
9:00 - 9:40	Keynote 3	Anne E. BAKER			
		Assessing language abilities in deaf children			
		Felix SZE & Gladys TANG			
9:40 - 10:10	Talk 3	Bimodal Bilingual development of discourse referencing			
		strategies of deaf and hard-of-hearing children			
10:10 - 10:40	Talk 4	Jia LI, Jafi LEE, Gladys TANG & Scholastica LAM			
		Development of HKSL by deaf children in the SLCO Programme			
10:40 - 11:00	Tea Break				
	Invited Talk 1	Kathy LEE, Tammy LAU, Emily LAM, Joffee LAM,			
11.00 11.20		Gladys TANG & Chris K-M. YIU			
11:00 - 11:30		Oral language development of deaf children in the SLCO			
		Programme			
		Emily LAM, Tammy LAU & Wilson YU			
11:30 - 12:00	Talk 5	Speech perception and oral language development of deaf			
		children in mainstream schools			
12:00 - 12:30	Talk 6	Ada LAU, Karen CHEUNG & Kathy LEE			
		Cantonese tone production performance of mainstream school			
		children with hearing impairment			
12:30 - 13:00	Panel Discussion II				
13:00 - 13:45	Lunch				
13:45 - 15:00	Press Conference/Demonstration of Teaching/Research Resources + coffee & Tea				
Theme III: Teachers for the deaf in sign bilingual programming					
		Fay WONG			
15:00 - 15:30	Talk 7	Participation of Deaf and Hard of Hearing Students in a Co-			
		enrollment Program: An Exploratory Study in Hong Kong			
	Talk 8	Leung Sing SUNG, Lucia CHOW, Chris K-M. YIU & Anna PUN			
15:30 - 16:00		The SLCO Programme: views from the Deaf teachers			
16:00 - 16:30		Tea Break			
16:30 - 17:00		Chloe HO, Chris K-M. YIU & Anna PUN			
	Talk 9	Deaf teachers' involvement in the SLCO Programme:			
		Views from students			
17:00 - 17:30	Panel Discussion 3				
18:00 - 20:00	Gala Dinner				

Day 3 Saturday 21 June 2014

Venue: Lecture Theatre 5 (LT5), Lee Shau Kee Building, The Chinese University of Hong Kong

8:30 - 9:00	Registration and Reception				
Theme IV: Deaf Education in Regular Settings					
9:00 - 9:40	Keynote 4	Shirin D. ANTIA Making inclusion happen: Factors leading to success			
9:40 - 10:10	Talk 10	Chris K-M. YIU On the social integration of deaf and hearing students in the SLCO Programme			
10:10 - 10:30	Tea Break				
10:30 - 11:00	Invited Talk 2	Takashi TORIGOE What are the 'Co-enrollment' practices?: A comparison			
11:00 - 11:30	Invited Talk 3	Min-Hua HSING Recent changes of deaf education policies and practices in Taiwan: The road to sign bilingualism			
11:30 - 12:10	Keynote 5	Carl J. KIRCHNER Educational success = environmental change			
12:10 - 12:40	Panel Discussion 4				
12:40 - 12:50	Closing ceremony				

Keynote Speakers (in chronological order)



Bencie WOLL

University College London

Bencie Woll began her career in Sign Language and Deaf Studies research at the University of Bristol in 1978, where she was a co-founder of the Centre for Deaf Studies. She moved to London in 1995 to take up a Chair in Sign Language and Deaf Studies, the first in this field in the UK, and then to University College

London in 2005 where she is Professor and Director of the Deafness, Cognition and Language Research Centre, the largest research group in this field in Europe, with around 30 research students, research fellows and associated researchers, about 1/3 of whom are Deaf. Her research and teaching interests embrace a wide range of topics, including the linguistics of British Sign Language (BSL), the history and sociolinguistics of BSL and the Deaf community, language development in deaf children, neuroscience of signed and spoken language, and developmental and acquired sign language impairments. In 2012 she became a Fellow of the British Academy.

"Why sign language is good for your brain"

Abstract:

Cochlear implants (CI) are a very successful intervention for restoring functional hearing loss in severely or profoundly deaf children. Despite this, educational performance (including literacy and exam success) in children with CI continues to lag behind their hearing peers. Animal models of deafness and human neuroimaging studies have been used to propose that the functions of auditory cortex are compromised by cross modal plasticity. This has been argued to result from the use of visual language – in the form of sign language, or speech reading accompanying the auditory speech signal. Emotive terms such as 'invasion of auditory cortex' suggest a pathological process related to visual language use. I will argue that 'sensitive periods' comprise both auditory and language sensitive periods, and thus cannot be fully described with animal models. Despite prevailing assumptions, there is no evidence to link the use of visual language to poorer CI outcome. Cross modal reorganization of auditory cortex is the result of deafness (auditory deprivation), occurring regardless of compensatory strategies, such as sign language use. In contrast, language deprivation during early sensitive periods has been consistently linked to poor language outcomes. Cross-modal plasticity can be reduced by early implantation. However, language sensitive periods have largely been ignored when considering variation in CI outcome, leading to ill-founded recommendations concerning visual language in CI habilitation.

Keynote Speakers



Rachel I. MAYBERRY

The University of California San Diego

Rachel I. Mayberry is a Professor in the Department of Linguistics at the University of California San Diego (UCSD) and serves as Director of the Laboratory for Multimodal Language Development, UCSD. Her research investigates how language develops across the many forms that language can

take: sign language, spoken language, and written language. The past few years, her research focused on the following key questions: 1) the nature of the critical period for language, including language development and brain imaging studies; 2) whether and how proficiency in a sign language relates to reading proficiency, including meta-analyses and eye-tracking studies; and 3) the degree to which general cognitive principles are factors in the emergence of linguistic structure in sign languages, including studies of gesture and handedness in sign languages. Her research is currently funded by grants from the Kavli Foundation and the National Institute of Deafness and Other Communication Disorders. She has been awarded a number of honors and awards and her work can be frequently seen in various international edited volumes, books and journals, such as Cognition, Brain and Language and Applied Psycholinguistics.

"How infant language prepares the child's brain to read"

Abstract:

The linguistic architecture of sign language is similar to that of spoken language and it is comprehended and produced similarly as well. However, unlike hearing children who acquire spoken language from birth, deaf children often acquire sign language at ages well past early childhood. In this talk I discuss recent research investigating the effects of sparse linguistic input during early childhood from two different perspectives: language acquisition and brain language processing. First I ask what the content and trajectory of sign language acquisition looks like when it begins after early childhood. Next I ask how the adult brain process sign language after a lack of language acquisition during early childhood. These studies show that that the infant's remarkable capacity to acquire language is diminished by a lack of linguistic stimulation from the environment. When language is absent from the young child's environment, only simple language structures can be learned, and the mature brain processes language in atypical ways. These linguistic and neural effects of a late onset of language acquisition help explain why deaf individuals who are highly proficient in sign language can become literate, and why many deaf students struggle to learn to read well.

Keynote Speakers



Anne E. BAKER

The University of Amsterdam

Anne E. Baker is an emeritus professor at the University of Amsterdam. She completed her Ph.D. at York University in the field of Linguistics in 1975 and then in 1985 her Habilitation at Tübingen University (Germany) where she was lecturing. She then worked in York (UK) as a senior lecturer from 1986 to 1988

when she was appointed chair of Psycholinguistics, Language Pathology and Sign Linguistics in the Faculty of Humanities at the University of Amsterdam. She served on the Faculty Board as vice-dean (1994-1997) and was director of the research institute Amsterdam Centre for Language and Communication (2002-2009). She was also a member of the Flemish Scientific Council from 2003 to 2009. She is president of the Sign Language Linguistics Society and is currently on the board of the Cognitive Science Center Amsterdam. Her research is in the field of psycholinguistics, specifically language acquisition of spoken and signed languages and developmental language pathologies. Her particular interest is in cross-linguistic investigation of acquisition and the relationship between language and cognition. She has been awarded several national and international grants and was a NIAS Fellow in 1990-1991 and 2005-2006, and her work has been published in many different international edited volumes and journals including Sign Language and Linguistics and Journal of Child Language.

"Assessing language abilities in deaf children"

Abstract:

Assessment instruments have the general aim of determining the linguistic level of the user, whether they are adults or children. They can be used for research purposes, but also for diagnostic and educational goals. For deaf children they have the important function of providing information for the planning of their educational program. They must cover the language forms the children are exposed to. The instruments used have to share the same properties of assessment instruments in general, such as reliability, validity and usability.

The assessment of language abilities in children has to take into consideration the language or languages they are exposed to. In the case of deaf children the exposure is almost always bimodal and bilingual, that is involving some form of signing and spoken language. They way that the two modalities are offered in the input to the child can vary a great deal – how the modalities are combined and the extent to which they made accessible to the child. As with any bilingual child language assessment has to take this diversity into account. Recently developed questionnaires for multilingual children (PABIQ: Tuller et al. 2014) offer the opportunity to develop instruments for deaf children, but there are challenges.

The bimodal bilingual production of the child also poses considerable challenges for assessment. Due to the particular situation of sign languages some aspects are difficult to realize such as standardization, whereas there are also aspects specific to sign languages such as the consideration

of iconicity in the lexical items used. Specific types of language assessment instruments like non-sign repetition or picture vocabulary tasks also pose specific problems due to the properties of sign languages. Observation instruments and spontaneous language analyses also needs careful construction for these bimodal bilingual children. A few examples of such instruments will be discussed.

Keynote Speakers



Shirin D. ANTIA

The University of Arizona

Shirin D. Antia, Meyerson Distinguished Professor of Disability and Rehabilitation, Department of Disability and Psychoeducational Studies (DPS), College of Education has directed the program in education of Deaf/Hard of

Hearing (DHH) since 1980. She teaches masters- and doctoral-level courses in the areas of language development of exceptional students, inclusion, and research. She is on the editorial board of the Journal of Deaf Studies and Deaf Education, the primary research journal in education of DHH individuals. She has been a board member of the Council on Education of the Deaf (CED), served as the president of the Association of College Educators-Deaf/Hard of Hearing (ACE-DHH) and is actively involved in professional preparation activities. She is the author of numerous articles and chapters on social interaction, social integration, and inclusion of DHH students. She is currently a co-principal investigator of the Center for Literacy and Deafness, a research center funded by the Institute of Educational Sciences. She has been honored as a UA CoE Erasmus Scholar, and received the Sister Mary Delaney award from ACE-DHH for her professional contribution to the field.

"Making inclusion happen: Factors leading to success"

Abstract:

Although many Deaf or Hard of Hearing (DHH) students attend general education programs with their hearing peers, professionals and parents have expressed concern regarding their academic and social outcomes. In the United States, general education classrooms usually include only a single DHH student who receives academic support from a specialized teacher of DHH students. Additional support may be obtained from sign language interpreters, audiologists, and speech-language professionals. The support provided to these students can range from consultation to the general education teacher to one-on-one teaching several hours a week. In these situations support may be predicated on the availability of a teacher of DHH, the size of this teachers' caseload, and school administrators' understanding of the needs of DHH students.

In contrast, co-enrollment is an inclusion model that seeks equal access, academically and socially, to the school and classroom community by both DHH and hearing students. The features of co-enrollment include a) the presence of a critical mass of DHH students within the classroom, b) team teaching by a general education teacher and a teacher of DHH students and c) the use of sign and spoken language within the classroom.

Research on the academic outcomes of DHH students who attend general education classrooms, including co-enrollment classrooms, shows that these students are achieving higher than the national average of DHH students, but lower than their hearing peers. Socially, most students are in the average range as rated by their teachers and by themselves. Predictors of academic and social outcomes include the DHH students' ability to participate in classroom communication; their expressive and receptive communication skills; their participation in school and community extra-curricular activities; appropriate

support from a teacher of DHH and sign language interpreter as necessary; and communication between general education teachers, teachers of DHH, and interpreters.

This presentation will

- Discuss different models of inclusion including co-enrollment and explain the difference between "mainstreaming" and "inclusion".
- Report on the research on academic and social outcomes of DHH students in general education classrooms
- Report on the academic and social outcomes of DHH students in co-enrolled classrooms
- Discuss the classroom and school factors that have been found to lead to successful inclusion of DHH students.

Keynote Speakers



Carl J. KIRCHNER

National University - San Diego

Carl J. Kirchner is a son of Deaf parents (CODA) in his fifty-fourth year of professional education services serving deaf and hard of hearing students and adults. He established the D/HH teacher preparation program at California State University- Northridge serving as an Assistant and Associate Professor. He co-

founded the private Los Angeles K-12 D/HH School - TRIPOD where he served as administrator and educational director. He has worked in residential, special day class and mainstreaming programs and was an educational consultant for the California State Department of Education. He has been in leadership positions serving as President of the Southern California Registry of Interpreters for the Deaf (SCRID), the National Registry of Interpreters for the Deaf (RID) and the Convention of American Instructors of the Deaf (CAID). Currently, he is an Adjunct Faculty member at National University, LaJolla, California and is particularly honored to be an overseas consultant to the "Jockey Club Sign Bilingualism and Co-enrollment in Deaf Education" research program for which he provided support to the program staff.

"Educational Success = Environmental Change"

Abstract:

In the book, Through the Looking Glass, the walrus and the carpenter are walking together on the beach. The walrus says, "The time has come to talk of many things." Sad to say that in deaf education, we have TALKED too long about too many things with little or no positive results. For well over 150 years, students have been subjected to...small class size.....self contained classrooms.....peers with limited language....inappropriate age groupings......refused access to the academic challenges of hearing peers.... teachers lacking appropriate subject credentials. These situations continue because of the false notion that deaf or hard of hearing children need curriculum content spoon-fed from bottom-up rather than top down while the real meal should be a mixture of both and more importantly a change of environment.

From the teacher practitioner's perspective, current educational success is measured by a student's SIGN usage and the teacher's limited teaching strategies. These are necessary but not fulfilling the student's entire educational needs. Deaf Education has been too controlled and kept in a limiting environment. Also forgotten is the wealth of information gained from social interactions with those outside of one's immediate cultural groups. Social behaviors silently modify behavior and create educational challenges that encourage the students to achieve beyond what professionals label "success". For this reason teachers must step outside of the old deaf education box with their goals, strategies, materials and emphasis on SIGN and create a rich, multifaceted and exciting learning environment. More importantly they must break down the sides of that box and push their students into the light. Returning to the characters walking on the beach, "If this were only cleared away," they said, "it WOULD be grand!"

Invited Speakers (in chronological order)



Kathy Yuet Sheung LEE

The Chinese University of Hong Kong

Kathy Y.S. LEE is currently an Associate Professor and Chief at the Division of Speech Therapy, the Department of Otorhinolaryngology, Head and Neck Surgery, the Chinese University of Hong Kong. She is an experienced Speech-Language Pathologist who has participated extensively in designing the

assessment and habilitation programs of various client groups since 1995. She has developed a number of validated tests including the Cantonese Receptive Vocabulary Test (CRVT), the Cantonese Basic Speech Perception Test (CBSPT) and the Cantonese Tone Identification Test (CANTIT). Her main research areas lie in pediatric speech and language development, Cantonese tone perception and production, test standardization and validation.

"The oral language development of deaf children in a sign bilingualism and co-enrollment program"

Abstract:

Purpose:

To explore the oral language development of Cantonese-speaking children with hearing impairment enrolled in a sign bilingualism and co-enrolment program in Hong Kong and to compare the oral language development of students enrolled in the bilingualism and co-enrolment program and those in other mainstreaming schools.

Method:

A total of 14 children with hearing impairment, enrolled in the sign bilingualism and co-enrolment program in Hong Kong, were included. The oral language performances of these children were assessed with the Hong Kong Cantonese Oral Language Assessment Scale (HKCOLAS) at two time points. The two time points differed about 3 years (+/- 0.5 years). The scores over time were compared using a repeated measures ANOVA test. The language abilities of 12 of these children were further selected to be compared with 16 children with hearing impairment in other mainstreaming schools. The comparison was made by using a repeated measures ANCOVA test, after controlling the degree of hearing loss and speech perception ability.

Results:

The results showed that students in the sign bilingualism and co-enrolment program in Hong Kong showed improvement in oral language in general. Improvement was noted in five out of six subtests, including Cantonese grammar, textual comprehension, word definition, lexical-semantic relationship and story retell. The improvement in textual comprehension was statistically significant.

For the comparison with children with hearing impairment in other mainstreaming schools, it was found that students in the sign bilingualism and co-enrolment program developed oral language at a faster rate than those in other mainstream schools in the overall oral language performance. The faster development rate by students in the sign bilingualism and co-enrolment program was found in four out of six subtests, including Cantonese grammar, textual comprehension, lexical-semantic relationship and story retell.

Conclusion:

Children with hearing impairment enrolled in a sign bilingual co-enrollment educational program showed positive oral language growth over time in general. Moreover, their rate of oral language development is faster than that by the students in other mainstream schools. Hence, exposures to sign language do not seem to hinder the positive oral language growth in children with hearing impairment.

Invited Speakers



Takashi TORIGOE

Hyogo University of Teacher Education

Takashi Torigoe is a professor in the Department of Special Needs Education at Hyogo University of Teacher Education, where he has being working since 1996, shortly after he obtained his Ph.D in Psychology from Hiroshima University (1994). Before that, he served as an instructor for Sign Language Interpreter

Training Program at National Rehabilitation Center for the Disabled (1990-1996). Throughout 1999 to 2013, he has worked in a number of European universities, including Stockholm University, the University of Oslo, and University of Jyvaskyla, as visiting researcher or visiting professor. His research fields involve psychology and education for deaf and hard-of-hearing (DHH) children, sign language studies, developmental psychology, and language acquisition. For each of the research fields, he has presented lots of products, internationally or nationally, in various forms, including journal papers, book chapters and conference presentations.

"What are the 'Co-enrollment' practices?: A comparison"

Abstract:

Nowadays many Deaf and Hard-of-Hearing (DHH) children enrolled in the regular schools in Japan as well as in developed countries, rather than in the special schools for DHH. Those inclusive DHH children, however, are sometimes reported to experience various challenges academically, socially, and psychologically. The co-enrollment program would be a promising attempt, in terms of sign bilingualism and inclusive learning for DHH. I visited several co-enrollment programs in the world (USA, Italy, Norway, Hong Kong), and found their differences and diversities of the practices in the classrooms. I defined tentatively the 'co-enrollment' as (1) DHH (not one, but a group) and hearing children in a classroom; (2) The general education teachers and the special education teachers (or Deaf teachers, sign language interpreters) teach collaboratively, and (3) Signed and spoken languages are both used as educational languages. In this paper, I would talk about my observation and experience of those co-enrollment programs including Japan (though it is still in an infantile stage), and compare their practices in the co-enrollment classrooms. More concretely, I would focus on those issues; what constitutes good practices in the co-enrollment classrooms? What challenges? How teachers collaboratively construct bilingual environment and cooperative learning situations for hearing and DHH children? What are the relations between signed and spoken languages in the coenrollment classrooms?

Invited Speakers



Min-Hua HSING

National University of Tainan

Min-Hua Hsing is a professor of National University of Tainan. She graduated from National ChenChi University (majored in Chinese Literature) in Taiwan. She went to USA to study generic special education and got her first master degree (M.Ed.) at Hardin-Simmons University in Abiline, Tx. USA. She then went back to

Taiwan and was a teacher for middle-school deaf students at Taipei Municipal School for the Deaf for 10 years. During this period, she also got her second master degree in education at graduate school for special education from National Taiwan Normal University. She continued pursuing her doctoral degree at University of Washington in Seattle and got her Ed.D degree in 1994. She then went to National University of Tainan (former name: National Tainan Teachers College) and served as an associate professor and then professor at the Department of Special Education. Her research interests include deaf education, sign langue teaching, sign/bilingual model, and deaf studies. Currently she is following Hong Kong's model and is executing a small sign bilingual inclusion experiment at the kindergarten level in Tainan, Taiwan.

"Deaf education in Taiwan: recent changes of policies regarding sign language and students with hearing impairment"

Abstract:

Sign bilingualism is more and more emphasized in international deaf education field. In Asia, sign bilingual deaf education model has been implemented in China, Hong Kong, and Japan, etc. Since 2006, sign bilingual reading model was implemented by Professor Huang at a private kindergarten in Kaohsiung, Taiwan. Since 2011, Hsing started to follow Hong Kong's model and began to conduct a sign bilingual partial inclusion experiment in Tainan, Taiwan at the hearing kindergarten level for 2 years. Since fall 2012, a sign bilingual experiment was conducted at a 1st grade classroom in a local deaf school till now. Since spring 2014, sign bilingual full inclusion experiments for one-week long were explored twice at a hearing kindergarten class (Hsing, 2014).

Some recent changes in deaf education and sign language policies in Taiwan include the national special education new curriculum outline announcement and a new kind of license offered for sign language interpreters -- advanced level. Recent practice changes emerged from Hong Kong sign bilingual team's visits to Taiwan and shared their successful experiences. Since then, few novice programs were conducted in Taipei by Professor H Chang (2014) and in Taichung by Professors Liu (since 2013).

Some obstacles were recognized, such as Taiwan government officials' ignorance of the importance of TSL for deaf students, and some teachers and parents' resistance to change attitudes. The conclusion is that sign bilingual deaf education model is beneficial for both deaf and hearing students and it is accessible. The road to sign bilingualism in Taiwan has already been opened. More endeavors are needed.

Abstracts

Talk 1

Does early sign language input make a difference on deaf children with Auditory Brainstem Implants?

Chris K-M. YIU, Emily LAM & Tammy LAU

Auditory Brainstem Implant (ABI) has become one of the options for deaf children with no cochlear nerve or with cochlear disorders that could not benefit from a Cochlear Implant (CI) (Colletti & Shannon, 2005). The perceptual outcomes of ABI vary among individuals (Pallares & Diamante, 2011), non-tumor ABI recipients showed to have some benefits in speech perception and environmental sound detection, but they are still facing risk of inaccessibility of linguistics input sufficient enough for their oral language development.

Recent advancement in research on sign linguistics and sign language acquisition has enabled us to reconsider the possibility that signed language may support spoken language development, no matter in their oral or written form. This case study examined the language development of two deaf children with ABI, one received sign language exposure at the early age at 1;3, and another received sign language late at 5;6.

With a similar chronological age of 6;7 and 6;8, both KC and MY are born to hearing parents. They were profoundly deaf, and they received their ABI surgery at 2;8 and 3;5 respectively after a few months trial of CI.

The assessment results of KC and MY were compared in: i) their oral language abilities including speech perception, receptive vocabulary, receptive and expressive language in Cantonese; ii) their vocabulary and grammatical knowledge in Chinese; and iii) their grammatical knowledge and narrative skills in Hong Kong Sign Language (HKSL). Results showed that KC had similar speech perception, receptive vocabulary and language comprehensive abilities as compared to that of MY. KC had a better vocabulary and grammatical knowledge in written Chinese than that of MY. Finally, when we considered their verbal expression, KC was found to have a much superior performance than that of MY. At the chronological age of 6;10, MY had a language age of 2;7, but KC showed to have a very positive growth in his oral language expression after having been admitted to the SLCO Programme.

With an early input of sign language, KC has developed a certain level of sign language skills in HKSL, but MY as a late learner of HKSL, is still struggling with the language. This preliminary study on deaf children with ABI in a sign bilingual and co-enrollment setting brought to our attention that early sign language input does not hinder their spoken language development. Enhanced signed language development seems to associate with more positive growth in spoken language development of a deaf child in a sign bilingualism and co-enrollment setting.

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Talk 2

Deaf students' literacy development in the SLCO Programme

Qun LI, Gladys TANG, Chris YIU & Scholastica LAM

For students, both deaf and hearing, literacy skill development is a critical educational need and a critical factor in their academic success. However, deaf learners generally experience persistent difficulties in grammar development, reading comprehension and written expression (Kelly 1996; Berent 2001; etc.). Hearing loss, linguistic experience, along with some other factors exhibited great obstacles to deaf students to learn the speech-based written forms. Grammar of written Chinese follows that of Mandarin rather than Cantonese, thus, in Hong Kong, hearing children may utilize their acquired Cantonese vocabulary and grammar to learn Chinese as a second language. However, deaf children have to decipher written Chinese by making use of what restricted Cantonese they have learned through oral training.

According to Linguistic Interdependence Hypothesis (Cummins 2006), it is possible that knowledge of a first language, which can be a sign language, can be transferred to a second language if given adequate exposure and motivation in the language environment. In 2006, the Jockey Club Sign Bilingual and Co-enrolment (SLCO) in Deaf Education Programme was initiated in Hong Kong. In a mainstream school under the programme, Hong Kong Sign Language was introduced in class as an instruction language in addition to oral Cantonese to develop deaf students' written Chinese and literacy skills. Since vocabulary and grammatical knowledge are fundamental components of literacy development, this study will investigate SLCO deaf students' knowledge of Chinese vocabulary and Chinese grammar to address the issues of their literacy development in the sign bilingual environment.

It is found that under the SLCO environment, although deaf children's vocabulary developmental rate lags behind hearing peers, these deaf children's vocabulary abilities improved significantly over time (from Grade 1 to Grade 3). Repeated Measures ANOVA revealed a significant interaction effect of Grade X Hearing Status, F (2.13, 161.33) = 14.69, p<.001, partial η^2 = .162. However, the difference was shown in expressive vocabulary abilities, not in receptive vocabulary abilities. Results of the Assessment of Chinese Grammatical Knowledge revealed a general increasing trend as grade level moves up for all children and the difference between SLCO deaf children and SLCO hearing peers was found in Grade 1 only (t(67) = -2.172, p<.05), and not found from Grade 2 onwards. In addition, a regression analysis revealed that Chinese vocabulary ability (r = .915, p<.01) and Chinese grammar ability (r = .793, p<.01) are significant factors that highly contribute to D/hh students' literacy development (F (4,7) = 14.817, p<.01, R2 = .834).

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Talk 3

Bimodal Bilingual Development of Discourse Referencing of Deaf/Hard-of-Hearing Children

Felix SZE & Gladys TANG

This paper investigates the bimodal and bilingual development of discourse referencing in the Cantonese and Hong Kong Sign Language (HKSL) narratives of a group of Deaf/hard-of-hearing d/hh) children who study in a sign-bilingual (i.e. sign and spoken language) co-enrolment (i.e. D/hh and hearing students) programme entitled The Jockey Club Sign Bilingualism and Co-enrolment in Deaf Education Programme. In this program, Hong Kong Sign Language and Cantonese are two major teaching languages.

Discourse referencing refers to the means by which referents are introduced, maintained, and reintroduced in a discourse. Developmental patterns of discourse referencing in narratives provide a good window to children's acquisition of nominal forms and the process through which children gradually master the pragmatic knowledge of using appropriate forms to meet the communication needs of the listeners (Wong & Johnston 2004). For hearing children, complete mastery of discourse referencing in spoken languages is attained after the age of ten (Hickmann 2003). Prelingually deaf children very often show significant delays in the development of spoken language relative to hearing age-mates due to limited auditory input. Acquiring NP structures and discourse referencing skills in Cantonese apparently represents an even bigger challenge to d/hh children in Hong Kong as they are also exposed to written Mandarin in school, which differs significantly from Cantonese in terms of the role of bare nouns and classifiers in encoding (in)definiteness. Like other sign languages, HKSL relies heavily on space in reference tracking. Relevant spatial referencing devices include spatial indexing of referents, verb agreements, classifier predicates and role shift (cf. Morgan 2002, 2005; Morgan & Woll 2003). How do d/hh children gradually master these spatial devices? What strategies would d/hh children use before they learn to use space? What happens when d/hh children develop discourse referencing skills in a spoken language and a sign language at the same time? Can they distinguish the two language systems? Would there be any interlinguistic transfers? If yes, what are the transfer patterns? This research project aims at answering these questions by looking into the spoken Cantonese and HKSL narratives of 15 d/hh children studying in the coenrolment programme.

Our data suggest that d/hh children initially use a high percentage of bare nouns for referencing purposes in both languages. They use more spatial devices such as pointing signs and verb agreement in signing narratives as their signing proficiency improves, resulting in a gradual drop of bare nouns. Such developmental patterns reflect that the d/hh children are approximating adult HKSL grammar over time. In contrast, in their Cantonese narrative productions, bare nouns predominate across all four spoken language proficiency levels. This naturally begs the question, 'Is the high % of bare nouns in the Cantonese data a transfer effect, given that bare nouns can occur in both definite and indefinite contexts in HKSL?'. Since no clear-cut correlation can be found in the

production of bare nouns in the spoken and signed narratives across the d/hh children, we would like to argue that the predominance of bare nouns in the Cantonese productions cannot be fully attributed to transfer from HKSL. Other factors such as possible influence from written Mandarin, general developmental issues, and delayed acquisition due to deprived auditory input will be discussed.

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Talk 4

Development of HKSL by deaf children in the SLCO Programme

Jia LI, Jafi LEE, Gladys TANG & Scholastica LAM

Children with exposure to natural sign languages from birth can successfully acquire them as first language (L1) without much effort. Early language acquisition studies show that native-signing deaf children can seamlessly approximate their developing grammar with that of the native deaf adults (cf. Chen Pichler (2010) on ASL; Morgan (2006) on BSL; Van den Borgaerde & Baker (2005) on NGT). In addition, their developmental milestones are similar to those of hearing children's spoken language (Anderson & Reilly, 2002; Lillo-Martin, 1999; Mayberry & Squires, 2006; Petitto, 2000; a.o.). However, when the majority of deaf children are born to hearing parents with little or no sign language experience during their early life, their onset age of sign language acquisition could be quite varied. In this paper, we examined the critical period effects on the acquisition in Hong Kong Sign Language (HKSL) by deaf children whose exposure to HKSL was delayed.

Four profoundly deaf children of hearing parents (DH) enrolled in the SLCO Programme participated in the current study. All were exposed to HKSL after 6 years old. Three of them started to use CI at 3;2-5;1, while the remaining one had been wearing HA since the age of 3;2. They all received both HKSL and Cantonese input at school. At the time of this study, they had a mean length of six years of exposure to HKSL. In addition, two deaf children of deaf parents (DD) who started to acquire HKSL at around 1;3-1;9 were recruited into the study. Their mean length of exposure to HKSL was around ten years. Three productive tasks were designed to test their grammatical development in HKSL: 1) picture description for classifier constructions and negation; 2) elicited production for wh-questions; and 3) story retelling for verb agreement and modals.

Generally speaking, these DH late learners underwent similar developmental process as the DDs despite of their delayed exposure to HKSL. This can be attributed to the rich linguistic environment they had been immersed for more than six years. In this environment, there was sustained HKSL input through interactions between other DH children and deaf teachers, as well as between DH children and DD classmates. Such kind of sign language input seems to be quantitatively and qualitatively conducive for DH late learners to acquire HKSL to some extent.

However, these DH late learners have not yet fully acquired all aspects of HKSL grammatical knowledge. Although their accuracy rates of the syntactic position of modals, wh-signs and classifier constructions were 97%, 75% and 72% respectively, they could only attain 35% for appropriate nonmanuals especially those are associated with the syntactic scope of wh-questions. Also, their performance in verb agreement was quite low (i.e.33%). Interestingly, the grammatical structures that DH children had displayed difficulty were also those that were acquired relatively late by the monolingual signing native DDs. Given the fact that both our DH and DD children are sign bilinguals, further investigation on their syntactic acquisition of nonmanuals and verb agreement is needed to show if they can ultimately achieve native-like performance as monolingual native deaf adults on HKSL.

Individual variation was also observed among our DH children. LKY had mastered most of the grammatical aspects of HKSL (with a mean accuracy rate of 90%, except for verb agreement), while TWK performed quite poorly on verb agreement, wh-questions, and classifier constructions (the mean accuracy rate was 33%, 42%, 43%, respectively). Taking these DH children's oral language abilities into consideration, TWK performed much better than LKY in terms of Cantonese speech perception (CANSWORT: TWK-56%; LKY-0%) and grammatical knowledge in Cantonese (HKCLOAS: TWK-77%; LKY-37%), implying that TWK could get linguistic input through both Cantonese and HKSL fairly readily. For LKY, HKSL was the only accessible language due to his extremely poor speech perception (i.e 0% CANSWORT). Hence, cross-linguistic influence may have an effect on the production of HKSL by TWK. This was confirmed by the error analysis in which TWK consistently adopted the Cantonese word order in his production of classifier construction (i.e. 0% for sign order in classifier constructions). Instead of using syntactic nonmanual markings for wh-questions, he mouthed Cantonese-equivalent wh-words 91% of the time. These findings suggest that spoken language-based signing can be derived internally by deaf children when they have knowledge of either spoken or natural signed languages.

These results offer some preliminary clues that immersing deaf children in a sign bilingual environment with sustained input in HKSL supports the development of this language to some extent. Some follow up study is necessary to verify the critical period effects, to find out if these DH children can eventually attain full knowledge of these grammatical constructions, despite late exposure to HKSL.

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Talk 5

Speech perception and oral language development of deaf children in mainstream schools

Emily LAM, Tammy LAU & Wilson YU

Purpose:

It is generally agreed that hearing impairment will have a considerable negative impact on speech perception and oral language development. However, with the technical advancement in recent years, deaf children are more ready to access speech information, and hence the potential for developing oral language skill increased. Mainstreaming deaf children into regular schools with the adoption of auditory-oral communication approach for teaching deaf children has been the major trend in Hong Kong deaf education for many years. On one hand, this practice is said to further increase the opportunity for using the residual hearing and practice their oral language. On the other hand, no systematic study has been done in Hong Kong to review the general oral language level and development of deaf children. Aiming at building a foundation for further research studies in deaf education, this study tries to answer the following questions: (1) What is the oral language ability of deaf children in HK? (2) What factor(s) may better predict the oral language outcome in deaf children? (3) What is the development of oral language ability of deaf children over time?

Method:

A total number of 111 Cantonese-speaking deaf children were recruited in the study. They were all studying in mainstream primary schools, and with degree of hearing loss ranged from 'mild' to 'profound'. Their oral language abilities were tested with the Hong Kong Cantonese Oral Language Assessment Scale (HKCOLAS), and their speech perception were tested with Cantonese Lexical Neighborhood Test (CLNT) and the Cantonese tone identification test (CANTIT) at time point 1. About 3 years later (+/- 0.5 year), 83 children's oral language abilities were re-assessed using HKCOLAS, and the results of 55 children still studying in primary school were used for analyses at time point 2.

Results:

In general, the oral language ability of deaf children as a whole was poorer than that of the normal hearing children. Based on the standard diagnostic criteria of HKCOLAS and the statistical method, there were as high as 65% of deaf children experiencing different levels of oral language delay. Multiple regression analysis was carried out to predict the contribution of several predictors to oral language outcomes. It suggested that lexical tone perception ability could significantly explain the variance. Over the time, majority of deaf children (71%) stayed in their respective language ability groups, some of them (5%) showed a regression and others (24%) showed improvement.

Conclusion:

The results of the present study were both positive and negative. While 35% deaf children showed age appropriate oral language skill, about two-thirds of deaf children in mainstream schools had difficulties in verbal comprehension and verbal expression. Instead of referring to the degree of hearing loss, Cantonese lexical tone perception is an important factor to predict the oral language outcome. Growth in oral language ability in deaf children is shown over the time, but what factors may contribute the regression or improvement in mainstream education is left to be answered.

Talk 6

Cantonese tone production performance of mainstream school children with hearing impairment

Ada LAU, Karen CHEUNG & Kathy LEE

This study investigated the Cantonese tone production ability of children with hearing impairment studying in mainstream schools. The participants were 87 Cantonese-speaking children with mild to profound degrees of hearing loss aged 5.92 to 13.58 from mainstream schools in Hong Kong. Most of the children were fitted with hearing aids (n = 65), 17 children with profound hearing-impairment and one with severe hearing loss had received cochlear implantation. In addition, there were four children with mild hearing loss who did not use any hearing device. The Hong Kong Cantonese Articulation Test was administered and the tones produced were rated by two of the authors and a speech-language pathologist. Group effects of tones, hearing loss level, and also an interaction of the two were found to be significant. Children with profound hearing-impairment performed significantly worse than most other children. Among the six tones, the high level tone (tone 1) was produced most accurately while production of the low level tone (tone 6) was the poorest. The number of years of mainstreaming was found to be unrelated to the tone production ability of these children. Analysis of the tone production error patterns revealed that confusion patterns in tone perception coincided with that in production. Tones having similar fundamental frequency (FO) at the onset also posed difficulty in tone production for children with hearing-impairment.

Talk 7

Participation of Deaf and Hard of Hearing Students in a Co-enrollment Program: An Exploratory Study in Hong Kong

Fay WONG

Co-enrollment provides Deaf and Hard of Hearing (D/HH) students with opportunities for academic and social integration with hearing peers. Classes are team-taught by a deaf teacher and a regular education teacher in a mainstream classroom. In the school setting, children are exposed to experiences embedded in the social system and they learn how to use language in the cultural settings of their classrooms. They construct meaning through their social interactions with teachers and peers (Biederman, 2003). In this light, we would like to view the co-enrollment class- room as a specific culture community. In this classroom community, both the hearing and Deaf communities construct their new common culture gradually through daily interactions.

The extension of integration of the D/HH and hearing students' classroom community has been examined from three perspectives. The first perspective focuses on the observation of language choice in peer interactions (the proportion and content of students using sign language and spoken language have been coded and analyzed); the second perspective focuses on the participants' interaction patterns [Initiation-Response-Feedback/ Follow-up(IRF) model and classroom interactional analysis(Triadic Dialogue) model proposed by Lin(2007) have been adopted to explore the interactional pattern in classroom discourse]; the third perspective focuses on academic engagement of the participants (the Mainstream Version of the Code for Instructional Structure and Student Academic Response(MS-CISSAR) has been employed to track the attention and time-on-task pattern of the D/HH and hearing students).

Results indicated that the co-enrolment setting allows the D/HH students to be involved in classroom interactions just as their hearing peers but with slightly different pattern in interaction mode. Moreover, hearing students are more integrated with their D/HH peers near the end of the school term with the increased use of sign language. Results indicated that the D/HH students in Hong Kong's co-enrollment setting were as academically engaged as their hearing peers. Subsequent implications and suggestions will be discussed.

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Talk 8

The SLCO Programme: views from the Deaf teachers

Leung Sing SUNG, Lucia S-K. CHOW, Chris K-M. YIU & Anna PUN

Co-enrollment or the establishment of twin schools is now considered as a promising alternative in deaf education (Kreimeyer et. al, 2000; Knoors, 2005), especially for fostering the psychosocial development of deaf and hard of hearing (DHH) students (Spencer & Marschark, 2010). A sign bilingual co-enrollment (SLCO) classroom is characterized by: (1) a critical mass of DHH students in the classroom, (2) team-teaching by a general education teacher and a Deaf teacher or a sign bilingual teacher of DHH students, and (3) the use of both signed and spoken languages as the medium of instructions in the classroom (Antia and Metz, 2014, in press).

In 2006, an experimental program called "Jockey Club Sign Bilingualism and Co-enrolment in Deaf Education Programme" was established in Hong Kong, in which a critical mass of around 36 DHH students was integrated in a mainstream primary school. The programme was developed based on two guiding principles: sign bilingualism and co-enrollment. A group of Deaf teachers were integrated into the SLCO programme to co-teach with the hearing teachers. They were involved in both teaching and extra-curriculum activities at the school, having direct contact with both the DHH and hearing students. Thus the Deaf teachers could closely observe their daily classroom learning as well as social interactions among each other. As one of the major stakeholders, it is of interest to understand how the Deaf teachers perceive the impact of this programme on the DHH students.

In this study, seven Deaf teachers who have worked in the SLCO programme from 1 to 6 years were interviewed individually to explore the possible impact of the SLCO programme to the DHH students, with reference to their own learning experience. Thematic analysis of the data showed that: i) the availability of both signed and spoken language as the medium of instructions resulted in increased access of information and participation in the lessons; ii) the cultivated bilingual environment facilitated positive social interactions among DHH and hearing students; and iii) the programme allowed equal access to the mainstream curriculum, without depriving DHH students' learning opportunities.

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Talk 9

Deaf teachers' involvement in the SLCO Programme: views from students

Chloe HO, Chris K-M. YIU & Anna PUN

Jimenez-Sanchez and Antia (1999) in their paper thoroughly discussed the benefits of team teaching involving hearing teachers and Deaf teachers on the development of both d/hh and hearing students linguistically and academically. They commented that when Deaf teachers became an integral part of the school community and involved in the team teaching practices for both d/hh and hearing students, "the most viable benefit was the access of all children to all communication in the classroom...where differences were not degraded but viewed as valuable and respected" (Jimenez-Sanchez, & Antia, 1999, p.223). However, how d/hh and hearing students perceived the role of Deaf teachers and their significance in the SLCO classrooms were not thoroughly studied in the past.

This preliminary study aimed to investigate how students perceived the involvement of Deaf teachers in the Sign Bilingualism and Co-enrollment in Deaf Education Programme (SLCO) in Hong Kong. A questionnaire survey was conducted with 23 DHH and 64 hearing students from Primary 4 to Secondary 1 in 4 SLCO classes, in which 5-6 DHH students were co-enrolled with 20-29 hearing students in an ordinary classroom. For over 60% of the lessons, a Deaf teacher co-taught with a hearing teacher, using both signed and spoken language as the medium of instruction. Follow-up interviews were then conducted with 6 DHH students in Secondary 1 based on the data collected from the survey to further establish the perceived role of the Deaf teachers in school and to identify ways by which the Deaf teachers have supported them academically and socially. Findings of the questionnaire survey showed that both DHH and hearing students affirmed the significance of Deaf teachers in the SLCO classrooms. Hearing students perceived Deaf adults as a teacher in class who helped them not only to learn in class, but also pick up a new language, i.e. Hong Kong Sign Language. In addition, students felt supported by the Deaf teachers socially and emotionally. Interviews revealed that for DHH students, Deaf teachers were particularly crucial as teachers' own experience in learning and daily life could be a reference to students and give them a sense of empathy. The DHH students also expressed that Deaf teachers were role models that demonstrated how a Deaf adult can be and how they live in a world where hearing people are the majority of the community.

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Talk 10

On the social integration of deaf and hearing students in the SLCO Programme

Chris K-M. YIU

Although inclusive deaf education has become a global trend, one crucial question regarding educating deaf and hard-of-hearing (DHH) students in a mainstream setting is whether social integration between DHH and hearing students can be achieved. Physical proximity or physical placement alone does not provide sufficient conditions for social inclusion of DHH students in public schools (Antia et al., 2002), and many DHH students placed in mainstream settings individually may perceive themselves as "visitors" rather than "members" of their school/class communities.

The sign bilingual and co-enrollment approach to deaf education attempts to tackle this problem of how DHH students should be educated inclusively in a mainstream setting. This approach rests upon two main strategies: (a) enrolling a critical mass of DHH students in a mainstream setting, and (b) immersing both DHH and hearing students in a sign bilingual classroom that is team taught by a hearing teacher and a deaf teacher.

In this paper, we will present findings on the degree of social acceptance between DHH and hearing students based on three psychosocial measures: (a) peer ratings, (b) hearing students' attitudes toward DHH students, and (c) DHH students' attitudes toward their own deafness. Sixteen DHH and 289 hearing students from primary 4 to primary 6 participated in the current study. Results were quite encouraging. Both DHH and hearing students rated each other positively in peer ratings. Further statistical analysis showed that the scores for peer ratings correlated positively with DHH students' attitudes towards their own deafness, and with positive attitudes towards DHH students by hearing students. Such results offer promising evidence that combining sign bilingualism and co-enrollment in mainstream, inclusive education may be a feasible option in raising and educating DHH students.

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