

**WRITING SYSTEMS
ANALYSIS, ACQUISITION AND USE**

**Institute of Education, University of London
22 November 2008**

TABLE OF CONTENTS

Timetable	2
Presentations	3
Coulmas	3
Lorch	3
Sebba	3
Masterson et al.	4
Vaid et al.	4
Hanley & Pitts	4
Young-Scholten	5
Sze and Rickard Liow	5
Bassetti	6
Androutsopoulos	6
Posters	7
Falahati	7
Funder Hansen	7
Harris	8
Moseley	8
Ros I Sole & Newby	9
Themistocleous	9
Weber	10
Participants	11

TIMETABLE

- 9.00-9.15 **Registration**
- 9.15-9.30 **Opening**
- 9.30-11.30 **Overviews of Theories, Methods and Findings**
Chair: Vivian Cook
- 9.30 Florian Coulmas
 Varieties of goodness: the evolution of writing reconsidered
- 10.00 Marjorie Lorch
 Writing systems research: neurolinguistic approaches
- 10.30 Tea break
- 11.00 Mark Sebba
 An army, a navy and – an orthography?
- 11.30-12.30 **Research reports 1**
Chair: Benedetta Bassetti
- 11.30 Jackie Masterson et al.
 Factors affecting the spelling performance of English-, Greek- and Italian-speaking children in Grade 1/2
- 12.00 Jyostna Vaid, Chaitra Rao and Hsin-Chin Chen
 How script matters: word recognition in Hindi and Urdu
- 12.30-13.30 **Lunch**
- 13.30-16.30 **Research reports 2**
Chair: Jyotsna Vaid
- 13.30 Rick Hanley and Barbara Pitts
 Reading and spelling strategies in English by adults whose first language is Spanish
- 14.00 Martha Young-Scholten
 Adult learners' first time L2 development of alphabetic literacy
- 14.30 Wei Ping Sze and Susan J. Rickard Liow
 Cross-Linguistic transfer of morphological awareness to English: differences between Malay-L1/English-L2 and Mandarin-L1/English-L2 bilinguals
- 15.00 Tea break
- 15.30 Benedetta Bassetti
 Effects of orthographic representations on pronunciation in second language learners of Chinese
- 16.00 Jannis Androutsopoulos
 Ideologies of computer-mediated digraphia: the case of 'Greeklisk'
- 16.30-18.00 **Reception and poster session**

PRESENTATIONS

Varieties of goodness: the evolution of writing reconsidered

Florian COULMAS, Duisburg-Essen University and German Institute for Japanese Studies (Japan)

The paper discusses the question of how the quality of writing systems can be assessed. Its point of departure is the teleological evolution theory about the history of writing originally proposed half a century ago by Ignaz Gelb. This theory which is still often invoked implies a valuation of writing systems according to which the Greco-Latin alphabet is the pinnacle of a quasi-natural evolution. Taking issue with this position, it is argued in this paper that an evolutionist approach to the history of writing is problematic because writing is a cultural artifact and as such serves both instrumental and sentimental functions. Because of the multiple functions of writing several standards of goodness must be taken into consideration if after 5000 years of full writing the continued existence of several hundred scripts is to be explained. A number of criteria for the improvement of notations are examined with regard to writing systems, scripts and orthographies.

Writing systems research: neurolinguistic approaches

Marjorie LORCH, Birkbeck, University of London

This presentation will consider the neurolinguistic issues regarding language in respect to its written form and function. Comparison will be drawn to spoken language production on the one hand and written language comprehension on the other. It will be argued that writing has several cognitive features which make it distinct from both speech and reading. The additional processing resources for motoric and orthographic properties of the writing system have consequences which are evident in agraphia. Research evidence will be drawn from acquired disorders of writing and spelling. Cross-linguistics variables in orthographic representation will also be considered.

An army, a navy and – an orthography?

Mark SEBBA, Lancaster University

The saying that ‘a language is a dialect with an army and a navy’ overlooks the importance of orthography in the establishment and demarcation of identity. The link between orthography and identity is in fact pervasive, and can be found at different levels of social organisation, for example, subcultural groups, regions and nation-states. In this paper I will discuss the significance of orthography as an identity marker in a range of different contexts, within a ‘sociolinguistics of orthography’ approach.

Factors affecting the spelling performance of English-, Greek- and Italian-speaking children in Grade 1/2

*Jackie MASTERSON¹, Lucia COLOMBO², Ken SPENCER³, Kleio FTIKA¹,
Lyn QUINN¹, Athanasia SYNTILI¹*

1. Institute of Education, London 2. University of Padova. 3. University of Hull.

The study investigated the effect of word-based and child-based variables on single word spelling performance for a common (translated) word set in Grade 1 and 2 English, Italian and Greek speaking children. The word-based variables included lexical and sublexical printed frequency, and word length. The child-based variables included visual short-term memory, verbal short-term memory, phonological skill, and a measure of general ability. English, Greek and Italian are of interest for the study of the development of spelling since they can be considered to lie on a continuum of spelling-sound consistency, with English the most inconsistent and Italian the most consistent. We found that the Italian children made very few errors in spelling by the end of Grade 1. The results for the English and Greek children were in line with the predictions we made on the basis of the characteristics of the writing systems. Print frequency was a stronger predictor of spelling accuracy for the English children, while for the Greek children word length was a stronger predictor of performance. In terms of child-based variables, visual memory and phonological skill were predictors for the English children, while for the Greek children phonological skill and verbal short-term memory were predictors. We discuss the results in terms of the demands posed by different orthographies for novice spellers.

How script matters: word recognition in Hindi and Urdu

Jyotsna VAID¹, Chaitra RAO¹ and Hsin-Chin CHEN²

1. Texas A&M University 2. National Chung Cheng University

Hindi and Urdu, two widely spoken languages of South Asia, share a common lexicon, phonology, and grammar, but differ markedly in their script. Hindi, influenced by Sanskrit, is written in the phonologically transparent, alpha-syllabic Devanagari script whereas Urdu, influenced by Persian, is written in the phonologically opaque, alphabetic Arabic script. This unique situation makes it possible to study the processing implications of differences in script characteristics across languages while keeping other linguistic differences constant. In my presentation I summarize a series of studies my students and I have undertaken that illustrate a distinct and varied scriptal influence in lexical processing in skilled readers of Hindi and Urdu.

Reading and spelling strategies in English by adults whose first language is Spanish

Rick HANLEY and Barbara PITTS, University of Essex

The performance of nine Spanish speakers on tests of English reading, spelling, and phonological awareness was examined and compared to that of children of similar reading ability. Even though the Spanish participants had several years experience of reading and writing in English and performed well at reading nonwords, they showed

little evidence of phonological processing strategies when reading familiar words. When compared to monolingual English children, the Spanish speakers made fewer phonological errors on tests of visual lexical decision and written homophone definition. Unlike the children, they showed no evidence of a regularity effect in reading. They also performed relatively poorly at written rhyme judgements despite good performance on tests of phonological awareness. Only on unfamiliar words did they show evidence of phonological processing in reading. Their spelling of English nonwords was also poor, although a regularity effect provided evidence for limited use of phoneme-grapheme correspondences in spelling familiar words. Possible explanations of this pattern of performance are discussed.

Adult learners' first time L2 development of alphabetic literacy

Martha YOUNG-SCHOLTEN, Newcastle University

Research on children's development of reading in an alphabetic script points to pre-reading awareness of syllable, onset and rhyme (Bryant & Bradley 1983; Goswami & Bryant 1990; Burt *et al.* 1999) and possibly word (Karmiloff-Smith *et al.* 1996), and the concurrent emergence of phonemic awareness with the development of decoding skills. Yet phonemic awareness seems only to emerge with exposure to an alphabetic script (Read *et al.* 1986; Ng 2000). For those who learn to read in their native language beyond childhood, the pattern seems to be the same: the Portuguese-speaking adults studied by Morais *et al.* (1979; 1988) demonstrated syllabic and sub-syllabic awareness prior to learning to read, and phonemic awareness only with training or learning to read in Portuguese. Thus there appears to be no critical period for the development of phonemic awareness. This suggests that for those adults who immigrate without prior schooling and have been observed to experience difficulty in learning to read for the first time in a second language (L2), a low level of L2 oral proficiency may be the main contributor to problems (*cf.* Bernhardt & Kamil (1995) on the language threshold). Indeed, several studies of unschooled L2 English and L2 Dutch adult immigrants from a range of native language backgrounds reveal the same developmental patterns that have been found for young children prior to their mastery of decoding. For those immigrants who succeed in learning to read, high levels of oral proficiency along with phonemic awareness are found.

Cross-linguistic transfer of morphological awareness to English: differences between Malay-L1/English-L2 and Mandarin-L1/English-L2 bilinguals

Wei Ping SZE and Susan J. RICKARD LIOW, National University of Singapore

Malay has an alphabetic-syllabic script and transparent affixation whilst Mandarin comprises morpho-syllabic compounds written in an opaque logographic script. To explore whether L1 linguistic structure influences the nature of any cross-linguistic morphological transfer, knowledge of derivational suffixation and word compounding was compared for two groups of proficient bilinguals learning English in the same setting: Malay-L1/English-L2 (n=27) and Mandarin-L1/English-L2 (n=30). For Experiment 1, participants' accuracy for counting the number of morphemes in 40 English words was assessed. For Experiment 2, a legality judgment task involving

decision latencies and accuracy rates, two within-participants factors were crossed within 56 nonwords: suffixation vs. compounding, legal vs. illegal morphological composition. English vocabulary skills were equivalent but group differences in performance for both tasks were consistent with cross-linguistic transfer from the participants' first language: Malay-ESL speakers were more accurate at counting suffixed words, whilst the Mandarin-ESL speakers were better at accepting legal compounds in English. Despite prolonged exposure (>14 years) to English, L1 language-specific processes continue to influence L2 lexical representation.

Effects of orthographic representations on pronunciation in second language learners of Chinese

Benedetta BASSETTI, Institute of Education, University of London

Recent research has revealed effects of the Chinese romanisation system *pinyin* on metalinguistic awareness tasks and pronunciation tasks in second language learners of Chinese. The present study investigated some factors that might modulate the effects of orthography on the L2 pronunciation of Chinese: the level of phonological transparency of the learner's first language writing system; the learner's length of study; and the presence of pinyin orthographic representations during the pronunciation task. The first question was whether L2 orthographic representations could affect native users of transparent writing systems more than native users of opaque writing systems. The second question was whether the effects of orthography on pronunciation could be stronger in beginners than in more experienced learners. The third question was whether L2 learners' pronunciation could be more affected when reading pinyin syllables than when reading hanzi (Chinese characters). Results reveal that the effects of orthographic representations on L2 pronunciation are modulated by various factors.

Ideologies of computer-mediated digraphia: the case of 'Greeklish'

Jannis ANDROUTSOPOULOS, King's College London

My presentation takes a language-ideological view on 'Greeklish', i.e. the use of Latin-alphabet Greek in computer-mediated communication. Looking back to various historic predecessors and continuously used since the emergence of computer networks in the late 1960s, 'Greeklish' can be thought of as an instance of domain-specific digraphia, i.e. the use of an alternative script within (parts of) the domain of computer-mediated communication (CMC). In the last ten years or so, this digraphia *in statu nascendi* has generated a range of metalinguistic discourses, from web discussions to nationwide media reports, which include both 'autonomous' and 'ideological' understandings of orthography and are shaped by positions of control and resistance. On contemporary web discussion boards, the use of Latin-alphabet Greek is fairly restricted and increasingly stigmatized. We shall look at excerpts from a lengthy debate on one discussion forum and examine what participants' positions for and especially against 'Greeklish' reveal about 'autonomous' and 'ideological' views of orthography. I argue that contemporary ideologies of script choice and spelling cannot be understood without taking the social appropriation of digital communications technologies into account.

POSTERS

The effects of orthography on the pronunciation of L2 learners of Persian

Reza FALAHATI, University of Ottawa

This research examines the role of Persian orthography on learners' second language pronunciation. This study mainly focuses on the simplification of the consonant clusters by English learners of Persian as L2.

The process of consonant cluster simplification is well studied across different languages (Ohala 1981, 1983, 1990, 1992, 1993, 1995, 1997; Darzi 1991; Côté 1997, 2000, 2004a, 2004b; Mahootian 1997; Steriade 1997; Kang 2000; Kavitskaya 2001; Falahati 2008). The research in this area has mainly investigated the consonant cluster simplification process among native speakers of different languages. These studies, in general, have taken a phonetically grounded perspective and shown how perceptual factors affect the process of simplification across different languages.

Persian allows various classes of consonants to combine together in the final position of words. Some of the consonant clusters show a regular deletion of their final segments in Persian. Final consonant deletion usually happens in an informal and colloquial style. The question which may be raised here is whether the L2 learners of Persian also follow the same deletion pattern in the colloquial Persian as the native speakers. This question finds its root in the fact that the L2 learners are usually exposed to both spoken and written form of the language at the same time whereas the native speakers usually are not exposed to the written form of the language before they start schooling. The data of this pilot study is based on some individual interviews with the English learners of Persian as L2. Everyday topics in a very informal and casual setting were chosen so that it will result in informal productions. The results of this study show that the L2 learners of Persian do not follow the same deletion pattern as the native speakers.

Arabic letter recognition by native speakers and foreign language learners of Arabic

Gunna FUNDER HANSEN, University of Southern Denmark

Studies of letter recognition have mainly been concerned with recognition of letters of the Roman alphabet. The purpose of this study is to investigate letter recognition in Arabic by both native speakers and FL learners to whom L1 is written in the Roman alphabet. Based on a comparison of letter architecture in the two alphabets, Arabic medial letters are grouped in a system similar to Bouma's (Bouma, 1971) grouping of Roman minuscules. This analytical grouping is then verified empirically, employing pseudo-word reading by both native speakers and adult FL learners of Arabic at different levels. The empirical investigation generally supports the letter architecture analysis but it also points at considerable phonological interferences in FL learners and, more surprisingly, native speakers as well. A number of recoding errors seem to be caused by rather complex interferences between letters with both graphemic and phonemic similarities as well as ambiguous phonology due to dialectal influence (for

native speakers) and foreign consonantal phonology (FL learners). As for native speakers, the results seem to support incipient criticism pointing at general educational problems in the Arab world due to the major differences between spoken and written Arabic (e.g. Maamouri, 1998). Regarding FL learners, the study indicates a need for purposive training of grapheme-to-phoneme correspondences within specific groups of consonants.

Rongorongo revisited

Martin HARRIS, Birkbeck, University of London

Rongorongo is the undeciphered writing system of the Rapanui language spoken by the Rapanui, more commonly known as the Easter Island people. The script is composed of a series of glyphs representing birds, plants, and anthropomorphic shapes.

There is an increasing body of work on the subject, which has contributed to our understanding of the script, but has not provided a mutually agreed decipherment. Fischer, author of the first monograph on the subject, points out that ‘after 130-odd years, there is still no complete translation of Easter Islands Rongorongo inscriptions’ (Fischer 1997:263).

This paper will address two main points. Firstly, what is the underlying structure of the glyphs? And secondly, what methodology should be adopted to reveal this structure? The paper will review the current research in Rongorongo studies, with presentation of the most promising methods. A further section will present the results of a preliminary statistical analysis, which compares the glyph frequencies with morphemes extracted from a corpus of Rapanui language data. The results suggest that the syntax and phonology of Rapanui is closely reflected in the Rongorongo script with glyphs representing syllables and determiners denoting possible taxonomies, titles, and grammatical markers.

What has been established, through an initial distributional analysis, is that the glyphs are involved in processes of segmentation and substitution, duplication, mirroring and rotation. These processes illustrate that the glyphs which were initially considered ideographs, are composed of discrete elements denoting syllabic segments. A further inquiry will be made in to whether head direction is a precursor for morpheme boundaries, and what other indicators there are for determining parts of speech. This paper presents some observations that may highlight further properties of the script, which have not currently been considered. If more work can be supported by robust statistical models in conjunction with increased resource sharing among the academic community, it may be possible to increase our understanding of Rongorongo, the development of writing, and Rapanui culture.

Adaptation of the Roman and Cyrillic alphabets to a newly written language

Christopher MOSELEY, SSEES, University College London

The Roman and Cyrillic alphabets, and variants of them, are the most widespread orthographic systems in use in the world today, and as far as adaptation to languages currently being committed to writing is concerned, the Roman alphabet stands alone.

The reasons for this supremacy are cultural, and not inherent in the alphabet itself. There was a time in the early history of the Soviet Union when the Roman alphabet was also applied to languages under its central control. In this paper I will look at their relative efficiency in representing the languages to which they were applied, and compare these orthographies to the Cyrillic-based ones that supplanted them. I will also ask whether there are any lessons to be learned from this for orthography creation elsewhere in the world.

It's in the script

Cristina ROS I SOLE and Ian NEWBY, University College London

Although the rise in the number of students learning languages that use new scripts and writing systems poses important challenges for current approaches to language pedagogy, there is little research to date that addresses this important aspect of language teaching. This poster reports on preliminary data obtained through a workshop and interviews with language teachers in the context of the Languages of the Wider World-CETL.

An analysis of the data attempts to:

1. Map some of the concerns facing teachers when teaching a new script/writing system in the context of foreign language teaching.
2. Identify teachers' representations concerning language and learning.
3. Identify the main ideological positions underlying these representations.

This first approximation at establishing teachers' positions on this issue will help to define some possible avenues for future investigation.

The online orthography of a non-standard Greek variety: the case of Cypriot Greek

Christiana THEMISTOCLEOUS, University of Manchester

Cypriot Greek, a variety of Greek spoken in the island of Cyprus, does not have a standard official orthography and it is rarely used for written purposes. In an era of computer increasing technology and with the emergence of Computer-mediated Communication, Cypriot Greek is now widely used in online text-based communication, among adolescents (Themistocleous, forthcoming). Due to technological constrains however, Greek-Cypriots transcribe their regional variety using Roman characters instead of the Greek alphabet. In this study, I present the innovative ways that Greek-Cypriots use Roman characters in an effort to represent features of their spoken language in writing and in particular sounds that do not exist in Standard Greek such as post-alveolar fricatives, post-alveolar affricates and geminates. By analysing data obtained from #Cyprus of Internet Relay Chat (IRC), I argue that the orthographic choices of internet users do not only reflect the fact that these individuals want to promote their own language in a global environment, but also this phenomenon has wider social significance. In particular, I demonstrate how the choice of writing in Cypriot Greek affects the ways that Roman characters are used by IRC participants.

The impact of a writing system on the evolution of a language

Brigitte WEBER, University of Klagenfurt

Pidgin and Creole languages originate among people who do not share a mother tongue. Many of them have never been written down and studied. They are comparatively young languages and several of their first users were probably illiterate.

Cameroon Pidgin English (CPE) is the variety of West African Pidgin English (WAPE) spoken in Cameroon. The rich and diverse sources of the language reflect the historical conditions of this multiethnic and multilingual country. German colonial influence lasted from 1884 to 1916 during which time this pidginized language was used as a lingua franca. During this time CPE began to be written down by the Germans. Certain German characteristics can be found in pronunciation, which is reflected in orthography.

The most essential key document during the Germans' presence in Cameroon is Gunther von Hagen's *Kurzes Handbuch für Neger=Englisch an der Westküste Afrikas unter besonderer Berücksichtigung von Kamerun* (Berlin 1908). Hagen's way of dealing with pronunciation is presented according to the phonetic system employed in the 'Method of Toussaint – Langenscheidt' (1856). In the middle of the 19th century the German Gustav Langenscheidt had developed a method of self-study learning materials, first for French and English, later for other European languages. With his methodology of language learning the main focus had shifted from grammar to pronunciation and communication skills. He created the first easy-to-use phonetics system as part of the 'Toussaint-Langenscheidt method'. It was, however, much influenced by the German spelling system and orthography. Written examples of Cameroon Pidgin English show a marked influence of German which has generally been neglected so far with most researchers.