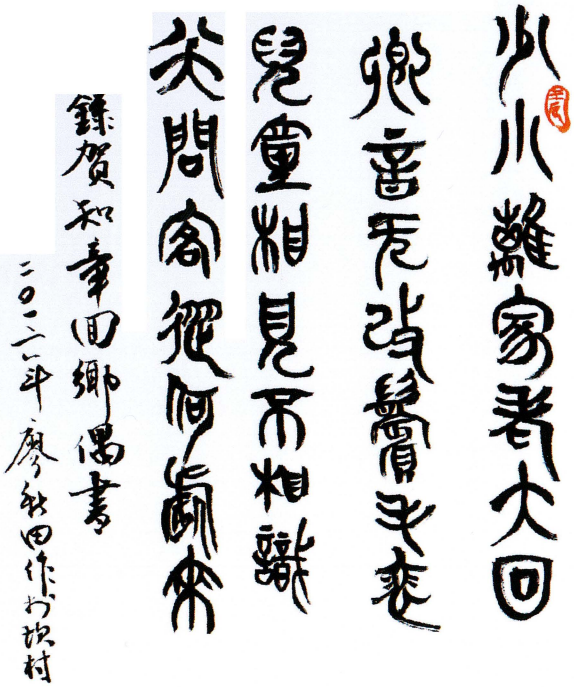
Quantitative approaches to problems in linguistics

Studies in honour of Phil Rose

Cathryn Donohue,
Shunichi Ishihara,
William Steed (editors)



LINCOM Studies in Phonetics 08

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Phil Rose: A short biography

Ann Kumar, Cathryn Donohue, Shunichi Ishihara

Phil was born in London, though his family later moved to the countryside, which was more congenial than the town for an athletic boy. Phil's father came from a well-to-do country family and was duly sent off to a public school as a boarder – his school days ending prematurely when, a mere 14 years old, he enlisted by falsifying his age. He was a decorated war hero particularly for his work with the French Resistance. Phil's mother was also heroic and actively involved in the war effort, driving ambulances for the Women's Auxiliary Air Force in the war to pick up injured pilots. These ambulances were huge, cumbersome vehicles requiring special training and a special licence to drive, and dealing with the seriously wounded was no picnic either.

Phil's father realized early in the piece that he had an exceptional son, who was precociously gifted both as a cricketer and as a chess player. Besides coaching him in cricket and chess he also provided Phil with a well-rounded education developing all his abilities. Perhaps because of his own country origins, he was an enthusiastic naturalist and took young Phil on field trips identifying the fauna from *The Boys Book of Beasts*. (One of Phil's hobbies is assembling animal skeletons!) In secondary school Phil was an outstanding student and was Head Boy in his final year, but he was also passionate about playing sport – he was Captain of Cricket and Captain of Rugby and was even recruited to play in adult cricket sides from the age of about thirteen or fourteen. Though he was always proud to contribute to his team's success, his mother was far less inclined to discount the cost in injuries, which on one occasion included a bloody broken nose.

Phil attended the University of Manchester for his undergraduate studies. His major specialization was German, in which he had already acquired considerable competence at school, though during the in-country period of his German training he started studying Chinese and Japanese thanks to a scholarship he received to study at Erlangen. He also studied Russian, and graduated with First Class Honours. He subsequently gained the London Dip. IPA (First Class).

Phil continued to study Chinese, which was to be at the centre of his academic career, teaching himself from an old Linguaphone course with 78-rpm records and working at it while commuting between work and his home in East Grinstead. He undertook his postgraduate studies at Cambridge University, focusing on Chinese and solidifying his career path in tone and acoustics. He completed both his M.A. and Ph.D. under the direction of Paul Kratochvíl, author of *The Chinese Language Today* and an expert on tones and tone sandhi, who also, Phil says, taught him to write English well.

Phil was recruited to the A.N.U. by Bob Dixon in the year Margaret Thatcher became Prime Minister of the U.K. (1979). He spent ten years as a tutor though he was actually the lecturer in charge of major courses. At the same time he did an enormous amount of reading across the whole discipline of linguistics. Although he always claims to know very little of other branches of the discipline than phonetics, he has in fact been intellectually engaged well beyond his own specialty, and his opinions are always well-considered.

Teaching has always been a vocation and not just a job for Phil. In a review of the Department of Linguistics it was clear that he was a quite exceptional teacher: among many appreciative assessments one student commented "Even in a department of good teachers, Phil Rose stands out". His dedicated and inspiring teaching was nowhere put to better effect than in the first-year class, which was the bedrock of the linguistics program. He taught this over a long period, and in setting the numerous assignments for this course he succeeded in making them not only challenging, but also fun. In his phonetics courses, he would always spend a lot of time with every student setting up and monitoring their course project, ensuring that they produced the best possible work despite the loss of the phonetics lab technician. Compromise was anathema to him and he continued to maintain the high standards he set himself for both his undergraduate and his graduate students, even as the linguistics program was progressively cut down despite glowing external reviews recommending increased staffing.

Despite his very heavy teaching load Phil produced a stream of publications of the highest quality. His publications on tone covered not only Chinese but also Thai, and other languages; he even made a study of Tibetan spelling chant. In contrast to his notable patience with students of all calibres, he had no patience at all with the ever-increasing number of unstructured and rambling meetings on university procedures and 'restructuring' that impinged on time available for activities such as teaching and research that he considered much more important.

The second main focus of Phil's academic career began when his former student Mark Durie recommended him to someone with a forensic problem as far and away the best qualified and most careful and conscientious person. How right this judgment was to prove! After working in this field for some years Phil produced the pioneering book *Forensic Speaker Identification* (Rose 2002) introducing a new, Bayesian, methodology to the field. The book was dedicated to his mum, who died the day before she could see the finished book, and his dad 'who taught him how to observe'. He established this Bayesian approach in the discipline of forensic voice comparison in Australia. His pioneering work led to him being chosen as keynote speaker at Odyssey 2004—The Speaker and Language Recognition Workshop in Toledo, Spain, which was hosted by the Biometric Recognition Group of Universidad Autónoma de Madrid. This in turn led to an ongoing collaboration with Spanish Bayesian speech scientists at the Universidad Autónoma de Madrid. One of the significant outcomes from this collaboration is the publication of Gonzalez-Rodriguez, Rose, Ramos, Toledano & Ortega-Garcia (2007) in which it is demonstrated how traditional and automatic forensic voice comparison methodologies meet the court admissibility requirements. The award of a British Academy Professorship enabled him to further improve his statistical competence in collaboration with colleagues (such as Colin Aitken and David Lucy) of the Joseph Bell Centre for Forensic Statistics and Legal Reasoning at the University of Edinburgh. His research collaborations are not limited to Western countries. In some of Phil's papers on forensic voice comparison (e.g. Rose, Lucy & Osanai 2004; Rose 2011a; 2011b), Japanese is used as the target language, due to the successful collaboration with the National Research Institute of Police Science, Japan.

As his reputation grew, Phil undertook an increasingly heavy load of forensic casework. Among his many cases the Bain case in New Zealand is perhaps the most striking example of his contribution to the dispensation of justice. David Bain had served more than 13 years in prison for the murders of his parents and siblings, before a retrial was ordered in 2009. Phil was the court's expert witness and rather than focusing on what he heard, Phil rightly pointed

out that what anyone hears is irrelevant, what matters is what Bain said, something that can be established with acoustic analysis. Phil's meticulous analysis of the disputed utterance that the police claimed was clearly an admission of guilt by David Bain was the most telling exposure of the danger of this claim by any expert. Bain was subsequently acquitted after his long ordeal and a second trial.

In 2007 Phil was awarded a large ARC grant on a forensic voice comparison project entitled *Catching Criminals by Their Voice – Combining Automatic and Traditional Methods for Optimum Performance in Forensic Speaker Identification*, and appointed Geoffrey Morrison as his research associate. He also brought Cuiling Zhang from the China Criminal Police University to the ANU thanks to a small grant from the International Centre for Excellence in Asian Studies, leading to the introduction of Bayesian forensic voice comparison to China. They produced many important publications advancing the professional standards of forensic voice comparison including Rose and Morrison (2009), Morrison, Zhang and Rose (2011), Morrison, Rose and Zhang (2012).

Phil spent the first semester of 2012 at the Hong Kong University of Science and Technology, teaching an undergraduate course on the Chinese language and a postgraduate course aimed at establishing whether likelihood ratio-based forensic voice comparison was possible for Chinese – and whether it could be taught in one semester to students with no previous training. The outcome of this latter course was no less than six papers by the students, with Phil as co-author, submitted to and accepted for the 14th Australasian International Conference on Speech Science and Technology (where this volume will be presented). Subjects covered include 'Likelihood ratio-based forensic voice comparison with segmental cepstra from Cantonese and Japanese syllabic/mora nasals'; and 'Likelihood ratio-based forensic voice comparison with Cantonese short-term fundamental frequency distribution parameters'. Phil himself had only one single-author paper accepted – he submitted two, but was told one was the conference limit! On returning to Canberra, he immediately collaborated with Hugh Selby, the legal expert on evaluation of evidence, to write a critique of the draft standards proposed for forensic voice comparison in Australia.

Phil's current major project is a book on southern Wu tone sandhi. Within that framework he has already completed a comprehensive study of Wenzhou (溫州), on which he has already published some papers, and is now writing a monograph focused on Wenzhou morphotonemics. The plan of the book is to analyze both right- and left-branching tone sandhi varieties, as well as intermediate varieties, illustrating features of all systems.

Phil always has many irons in the fire and this book, along with other projects, including a textbook, will keep him busy for many years to come in his retirement from the ANU (but thankfully not from the field!).

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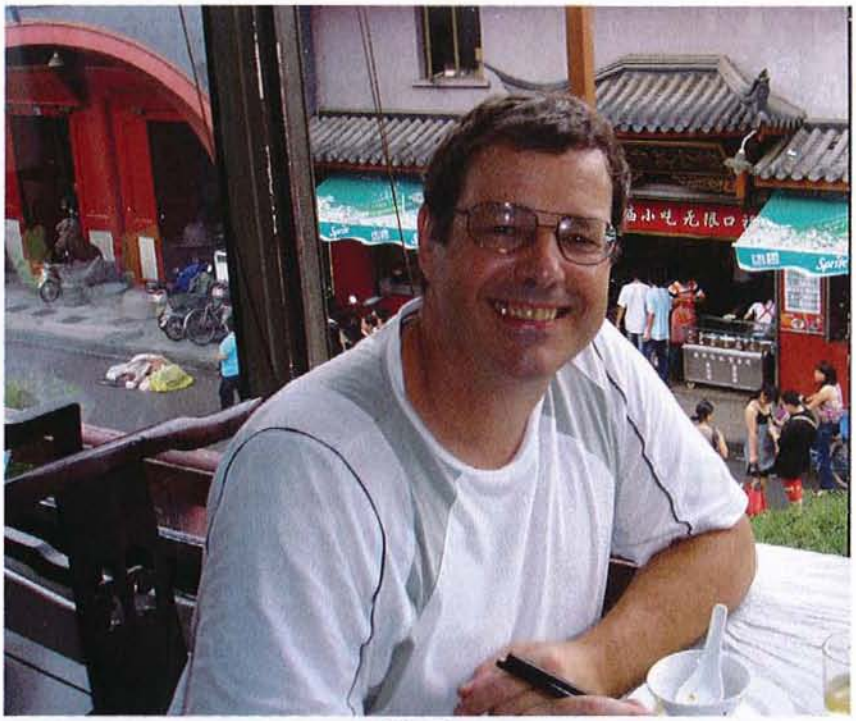
Phil Rose: China, 2007

(Courtesy of Zhu Xiaonong)



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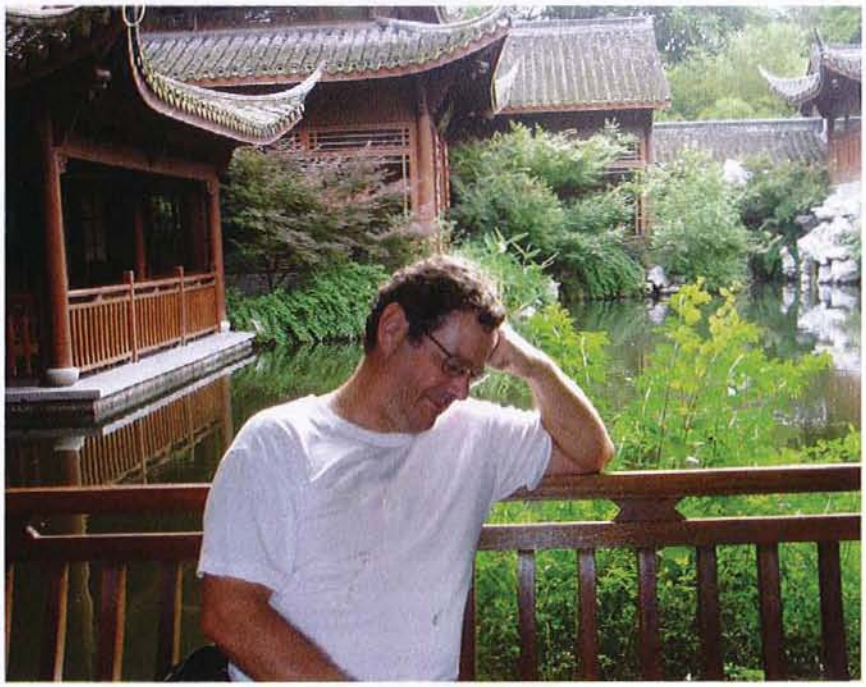

Westlake, Hangzhou

Many voices, many tones

Cathryn Donohue[a], Shunichi Ishihara[a], William Steed[b]
[a]*Australian National University,* [b]*James Cook University*

This volume is a collection of papers by friends and colleagues of Phil Rose to honour him for his significant contribution to the field of linguistics on the occasion of his recent retirement from the ANU. Phil has influenced us all in many important and lasting ways. His work in both (especially Chinese) tone and forensic voice comparison has always managed to improve upon the accepted standard through the insistence on statistical significance and the introduction of statistical techniques not previously employed in the field. He is a true scientist and always makes sure that his work was both ambitious and of the highest calibre.

Phil has a long history of working on tonal phenomena, since his Master's thesis on the phonology of Ningbo (Chinese). Despite having some of the best ears around, Phil quickly identified the shortcomings of auditory impressions for serious tonal descriptions, turning to the acoustic signal for data that can be properly quantified and measured (e.g. Rose 1982). He used many speakers for his early studies to ensure taking the mean eliminated performance quirks. However, Phil had also seen efforts to normalize acoustic data for vowels and had the great idea of extending the general practise to tonal descriptions as well. Needless to say, Phil's 1987 paper, "Considerations on the normalisation of the fundamental frequency of linguistic tone", had a major impact on the field. Phil used a simple statistic – the z-score transform – to normalize his acoustic data of the tones to abstract away from the variation found *between* speakers, making it possible to identify the tonal contours representative of *the variety as a whole*. He has since made studies of many varieties of Chinese (and other languages), clarifying issues for tonological research as well as providing quality quantified descriptions for the field of linguistics. Phil's approach is now the gold standard for tonal descriptions, and no doubt paved the way for his work in forensic voice comparison.

Phil's work on forensic voice comparison (FVC) has turned the field on its head, quite literally. In a typical FVC case, you have a speech recording from an unknown voice (e.g. an offender), and a speech sample from a known subject (e.g. a suspect). Before the introduction of the likelihood ratio-based approach, the problem of FVC was considered a classification/identification task; determining, for example, whether the speech from the offender and suspect were similar *enough* to be identified as coming from the same person (or more "precisely", the probability of this being the case). In technical terms, this is equivalent to trying to evaluate the probability of a hypothesis (e.g. the suspect is guilty), given the evidence (e.g. the observed similarities and differences between speech patterns of the suspect and the offender). Indeed, FVC was long considered a subfield of automatic speaker recognition and even referred to as forensic speaker recognition/identification/verification.

However, Phil has shown that there are serious problems (both technical and legal) with the old approach. Not only is it impossible for the forensic specialist to directly calculate the (conditional) probabilities of such hypotheses (e.g. the suspect is guilty) given the evidence available to him/her, but also, statements on the probability of such hypotheses being true potentially change the scientist's role from that of expert witness, to one of "trier-of-fact", normally reserved for judges and juries.

Phil is one of the first people who introduced the likelihood ratio-based evidence evaluation to forensic speech science, and demonstrated that it works with speech evidence. Using likelihood ratios one can evaluate the odds of obtaining the evidence under the two competing hypotheses (e.g. the suspect and the offender are the same person, or not). Thus, one obtains a measure of the strength of the evidence in support of either hypothesis, as is done in cases of DNA profiling. Analysing and presenting the evidence in this way does not violate the role of the trier-of-fact, since, following Bayes' theorem, the judge (or jury) must not only consider the likelihood ratios presented by the forensic specialist, but also factor in the prior odds (i.e. the other evidence in the case) to reach a final conclusion regarding the overall odds in favor of the hypothesis. Indeed, Phil has been a fervent advocate for the evaluation and presentation of FVC evidence in terms of Bayesian likelihood ratios, emulating the long-standing practice in the field of DNA forensics. Thanks to Phil, the likelihood ratio-based FVC is more than purely an area of academic research, but has been used in practice in several trials and is becoming widely accepted as the standard procedure in the Australian Court.

The title of this volume could well have been the same as that of this introductory piece – "Many voices, many tones" – instead, it is the broader *Quantitative approaches to problems in linguistics*. This was necessary to encompass all the papers included here; however, it also reflects Phil's engagement with the field. While his publications, professional achievements and accolades highlight his work in the phonetic sciences, a conversation with him on any topic will reveal a much broader interest and knowledge. He is genuinely interested in other areas and is singularly capable of not only immediately comprehending issues in that subfield he may be introduced to, but also of identifying ways in which that area could benefit from a particular approach or analysis or the further scrutiny of some related data. His own work now includes not just synchronic descriptions and explorations of tonal phenomena as well as forensic voice comparison in a variety of languages, but also a novel approach to the historical reconstruction of tones, also inspired by his background in statistics and normalization.

This volume is divided into three sections. The first two represent the two main areas of Phil's research: tonal studies and acoustics, and forensic voice comparison, and the third shows Phil's influence in wider fields of research.

The first section starts with **Mark Donohue**'s paper "The shape and spread of tone" which examines the integration of tone with the rest of the phonological system of a language. Investigating the co-occurrence of contrastive tones, contrastive vowels, and syllable shapes in a large sample of languages, he shows that there is a statistically significant skewing of the distribution of languages such that large numbers of contrastive tones are associated with large numbers of contrastive vowels, and not correlated with complex codas. However, when the correlations are examined on a family-by-family and area-by-area basis, it appears that the associations are not uniform, suggesting that different processes of tonogenesis have applied in different regions (or at least that the circumstantial evidence for tonogenesis is different).

William Steed's "Qingtian Wu lexical tone sandhi: Voiceless depressors and allotones" builds on Phil's work describing depressor phenomena in Wenzhou (Rose 2002a). The evidence from Qingtian data affirms his assertion that the lowered onset of depressed tones is not synchronically connected to the syllable onset's voice feature. The loss of phonological voicing in the data, while retaining the depressed tones that merge with their undepressed allotones, simplifies the underlying phonology of Qingtian. The description continues the

good example Phil has set of providing quantified acoustic data when describing complex tone phenomena.

Koichi Honda's detailed description of Lam River Vietnamese shows more subtle interactions between tones and segments in "The realisation of stopped tone in North-Central Vietnamese". He shows that in addition to phonation type variation, vowel length separates two Vietnamese tone categories further in Lam River region, partly conditioned by the final consonant. The secondary conclusion shows that the stopped and unstopped tones form allotonic pairs, rather than being tonemically separate. These conclusions reinforce that tonal description should not rely entirely on pitch.

In his paper "Tone Alternations in Ugong (Thailand)", **David Bradley** separates the complex realisations into two processes, and describes the variation, including the loss of the alternations, that occurs in the speech of semi-speakers. These semi-speakers instead overlay a tone system from the more dominant Thai language on their Ugong speech. The description of not only the alternation, but also the variation found contributes to both tone study and the study of language contact.

In her paper "The role of contour and phonation in Fuzhou tonal identification", **Cathryn Donohue** presents results from a discrimination task that shows that both a slight contour in F0 in (phonologically) level tones and the use of non-modal phonation are statistically significant factors in tonal identification in Fuzhou. The results pose particular challenges to standard tonological analyses of Chinese by suggesting that phonetically grounded approaches should incorporate both these perceptually significant features.

Shunichi Ishihara claims that little linguistic phonetic descriptive research has been undertaken on the accept types of Japanese dialects in his paper "Osaka and Kagoshima Japanese citation tone acoustics: A linguistic tonetic comparative study". In this study, focusing on Osaka (OJ) and Kagoshima Japanese (KJ) which share some same pitch patterns (LH, LHL, LLH and LLLH), 1) he derived linguistic tonetic representations of OJ and KJ tonalities from the normalised acoustic representations of LH, LHL, LLH and LLLH pitch patterns, and then 2) he explored some implications of the identified differences in the acoustic realisation of H/L units between OJ and KJ for the surface tonal representation of KJ within the autosegmental metrical theory. The usefulness of the z-score normalisation technique in tonal studies was theoretically argued for and empirically tested in Rose (1987, 1991). The technique has been widely used as the standard technique in many tonetic studies now.

Like Phil, **Xiaonong Zhu** has a long-standing interest in Wu acoustics, both tones and segments. In the paper included here, "Off-the-chart vowel changes in Chinese", Zhu describes and analyses the modern reflexes that arise from raising high vowels. He describes five processes that Chinese varieties have undergone as a result of raising vowels, based on principles of articulation and perception. He uses Phil's description and 'curled i' transcription of Zhenhai's 'high vowel with friction' for Shanghai's equivalent vowel (Rose 1982).

Takako Toda investigated the role of age in acquiring the phonology of a second language in her paper "The critical period hypothesis and phonological acquisition of Japanese". In her study, the common notion of 'the earlier the better' for language learning – of which the theoretical explanation is the well-known critical period hypothesis – was tested in terms of Japanese pronunciation. Speech samples and background information were collected from 86 L2 Japanese speakers varying in their L1 languages and 16 native speakers of Japanese (control group). Her results demonstrated that there was a negative correlation between age of onset and level of phonological acquisition, supporting the notion of 'the

earlier the better' for language learning. However, she also found out that there were some learners who successfully attained the native-level pronunciation even though they started studying Japanese after the critical period.

Andrew Butcher's paper, "Long, thin phonologies" uses acoustic evidence to explain the cooccurrence of many places of articulation and few manners of articulation in Australian languages. He uses acoustic and articulatory evidence to demonstrate that speakers of these languages do not spread cues of manner of articulation to vowels, allowing the vowels to give more salient cues to place of articulation.

The second section contains papers linking to Phil's research on forensic voice comparison (FVC). As the author of one of the major textbooks (Rose 2002b) written for non-linguists to understand how FVC works in the legal system, Phil has necessarily had a large impact on people working in this area.

Frantz Clermont's paper "Linear-scaling effects of phonetic context on vowel formants: A tutorial" is a fundamental research on a source of within-speaker variability, namely phonetic-context effect on formant transitions, which is highly relevant to Phil's work on FVC. Clermont and his colleague hypothesise that for a given speaker and a given formant, the relative spacing between vowels is invariant, and unaffected by consonantal context or by location within a syllable. They call this linear-scaling hypothesis. In his tutorial paper, first of all, Frantz Clermont explains the key concept of the linear-scaling approach, namely vowel-formant ensemble and then illustrates the various stages of this approach using F2 data obtained from 5 Arabic vowels in 13 fricative contexts.

Telephone transmission of any kind introduces an additional acoustic filter that is not related to a speaker's individualising information. Phil (Rose 2002b, 2003) provides detailed descriptions as to how formant value estimates are affected by landline telephone transmissions in comparison to direct recording. Largely motivated by these works of Phil's, **Michael Carne**'s paper, "Japanese formant frequencies in mobile phone transmission: Implications for FVC", describes an experiment that investigates the impact of mobile phone transmissions on vowel formant frequencies (F1-F3) in Japanese in terms of the direction of frequency shifts associated with spectral distortion. Although formant frequencies have been considered fairly robust to different channel effects, the results of his experiment show significant differences between the mobile phone and microphone formant measurements. He emphasises the need for the FVC analyst to exercise caution when using speech samples from different recording conditions.

Phil tested the effectiveness of a fricative as a FVC feature in Rose (2011), to potentially add to the standardly used vowel spectral feature for phonetically motivated FVC studies. In their paper, "Fine-grained automatic speaker recognition using cepstral trajectories in phone units", **Javier Franco-Pedroso, Joaquin Gonzalez-Rodriguez, Javier Gonzalez-Dominguez and Daniel Ramos** conduct a series of experiments in order to investigate to what extent different phone units contribute to speaker's identity. Their experiments focus on the temporal trajectories of the mel-frequency cepstral coefficient (MFCC) extracted from different phone units. Their experimental results are useful, in particular, when forensic speech scientists need to deal with uncontrolled scenarios where only some short segments are available to be compared. In that case, the speech scientist can infer a conclusion about the speaker identity in the speech sample from the experimental results of the current study.

Phil's work on FVC demonstrates that exploring and testing new acoustic features are very important for FVC. In his paper "Automatic speaker identification using the magnitude

and phase spectra of inverse-filtered voiced speech", **Michael Wagner** reports the results of speaker identification experiments based on speakers' glottal source characteristics, which are not standard features of contemporary speaker recognition systems. From these promising results, he argues that the inclusion of glottal source characteristics will result in a better performance in conventional speaker recognition, in which the standard features are related to the vocal-tract transfer function, such as MFCC. In his paper, he also proposes an algorithm to obtain an approximation of the glottal excitation function from each voiced frame of an utterance.

Chinese tones and FVC are Phil's two main areas of expertise, so this study, by close collaborators of his, is a golden combination for Phil. Focusing on the formant trajectories of the Standard Chinese triphthong /iau/ on tone 1, **Cuiling Zhang, Geoffrey Morrison and Tharmarajah Thiruvaran** explore the effectiveness of the formant trajectory in FVC in their paper "Forensic voice comparison using Chinese /iau/". They use discrete cosine transforms (DCTs) in order to model formant trajectories, and then use the derived DCT coefficient values for likelihood ratio calculation. They report a substantial improvement in system validity but a decline in system reliability when this information is added to a generic automatic FVC system.

Helen Fraser states in her paper, "Bayes and Beyond: The complex challenges of LADO and their relevance to forensic speaker comparison", that one of the many significant achievements of Phil's work is that he has demonstrated the importance of presenting FVC evidence in terms of a Bayesian Likelihood Ratio (Rose 2002b). Relating to the use of speech samples as legal evidence, she writes about some issues surrounding LADO (Language Analysis for Determination of the Origin of asylum seekers). She draws attention to the current status of the area, and outlines some of the issues that are most pertinent to the field. She calls for the testing of validity and rigour in current methodologies and statistical education in legal professions as two primary research needs with regards to LADO. The need for public education on the legal use of statistics is particularly relevant not just to LADO, but also for criminal forensics.

The final section includes three papers. While the topics of these papers fall outside Phil's main research areas, they touch upon his research program through their relevance to Chinese culture, language change, and Bayesian statistics, and are testimony to Phil's broader engagement with the academic community and the sort of positive impact he has on his colleagues.

Avery Andrews's paper, "UG and variation in expression", proposes a principle called 'Mirroring the Variation in Expression' which allows some forms of indirect negative evidence to be taken into account when trying to understand the architecture of Universal Grammar. This Bayesian approach to learnability, inspired by Phil's interest in Bayes' Theorem, promises to be very fruitful, already overcoming several of the problems of other approaches.

Ann Kumar's chapter on "Contextualizing the Old Javanese influence on Old Japanese" is a sequel to an earlier paper published in collaboration with Phil (Kumar & Rose 2000). It builds on their previously established phonological link between between Old Japanese and Old Javanese. This chapter adds lexical evidence to the phonological evidence, through a detailed examination of the 'humble auxiliaries' and other morphosyntactic features shared by both languages. Kumar also adduces archaeological and historical evidence, further confirming the continued contact between the two civilisations.

Wu Chinese being one of Phil's foci of research (e.g. Rose 2001), **Zhengdao Ye**'s paper "*Eating* and *drinking* in Mandarin and Shanghainese" is a good paper to round out the work on Wu presented here. Ye contrasts Mandarin Chinese, with separate words for *eating* and *drinking*, with Shanghai Chinese, which only uses a single word to describe both activities. Using Natural Semantic Metalanguage, she describes prototypes and extended meanings of eating and drinking words in both languages in order to demonstrate how the Shanghai word 吃 *chyq* does not match the conceptual space of its Mandarin cognate *chī*.

We are grateful to Hsin-tien Liao from the ANU for the beautiful calligraphy to be presented to Phil at the same time as this volume, and reproduced on the front cover. It is a poem by the poet Hè Zhīzhāng (賀知章; 659-754 CE) who came from Yuezhou-Yongxing, in what today is Xiaoshan County, in Zhejiang Province where Phil has conducted much of his own fieldwork. He was one of a group of four poets from the Lower Yangtze Basin that were known as the "Four Scholars from Wuzhong". A politician and a poet, he retired from politics at age eighty-five to become a Daoist hermit near Lake Jinghu in Zhejiang Province. He was a great friend of Li Bai, and in fact gave him his appellation of the "Banished Immortal". He was himself called one of the "Eight Immortals of the Winecup" by Du Fu and as he was known for his idiosyncrasy, also earned the appellation "Crazy Zhang". He was known for his openhearted love of the lower classes, and for his freethinking, and in later Daoist tales is presented as a man who achieved immortality. Only 19 of his poems remain.[1] This poem is about local accents, something that this particular set of contributors – like Phil – is especially grateful for!

回鄉偶書
少小離家老大回，鄉音無改鬢毛衰。兒童相見不相識，笑問客從何處來。

Huí xiāng ǒu shū
Shǎo xiǎo lí jiā lǎodà huí, xiāngyīn wú gǎi bìn máo shuāi. Értóng xiāng jiàn bù xiāngshí, xiào wèn kè cóng hé chù lái.

Returning home
I left home young and returned old, accent unchanged, but my hair now thin and grey. Little kids do not know me at all—with a big smile they ask "Where are you from, stranger?"

We would like to thank LINCOM for accepting our proposal to publish this collection so enthusiastically. We are deeply grateful to all our reviewers for their time and energy in providing extensive comments on the papers, increasing their quality immensely. Our reviewers include Kanae Amino, Steven Bird, Heather Buchan, Cathryn Donohue, Mark Donohue, Helen Fraser, Margaret Hughes, Larry Hyman, Shunichi Ishihara, Yuki Itani-Adams, Mark Johnson, Yuko Kinoshita, Tom Mylne, Daniel Ramos, William Steed, Kimiko Tsukada, Tom Wasow, Kristine Yu, Jie Zhang and five additional anonymous reviewers.

We would like to thank our contributors, not only for their contributions but also for working within our time constraints. Several others wanted to contribute to the volume but could not due to other pressing commitments. We wish to express our gratitude to the

[1] Thanks to the *Anchor book of Chinese poetry web companion*, hosted by Whittier College, for most of this information [http://web.whittier.edu/academic/english/chinese/].

Department of Linguistics, ANU for their financial support of this project. We would further like to acknowledge Geoffrey Morrison's involvement in the initial stages of this project.

Finally, we would like to end by wishing Phil all the very best in this new chapter of his life and as he focuses his energy more exclusively on his research. While your absence in the teaching ranks at the ANU will be sorely felt, we look forward to enjoying – and no doubt benefiting from – the fruits of your labour. Certainly your textbook will be a wonderful legacy for the students who will miss the opportunity to work with you directly [and perhaps, when that book of Wu is complete you'll finally head south to Min! –CD]

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